





Third-party logistics providers' strategic development in Sweden: Learning from a crisis



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Dates:

Received: 08 Sept. 2022
 Accepted: 04 Oct. 2022
 Published: 15 Nov. 2022

How to cite this article:

Borgstrom, B., Hertz, S., Jensen, L-M. & Kaneberg, E., 2022, 'Third-party logistics providers' strategic development in Sweden: Learning from a crisis', *Journal of Transport and Supply Chain Management* 16(0), a838. <https://doi.org/10.4102/jtscm.v16i0.838>

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Background: The enacted sensemaking of third-party logistics (TPL) providers during the pandemic crisis may present an opportunity to explore their strategic operations.

Objectives: The aim is to understand the TPL strategic implications related to a crisis and specifically how TPL providers make sense of and respond to crises. The two research questions are as follows: How has the COVID-19 pandemic crisis affected the business operations of TPL providers? What have TPL providers learnt from enacting the crisis, and how has this experience affected their strategic development?

Method: We conduct an abductive study using combined data from interviews and a targeted archive search. The data are focused on the Swedish context and on a period of the COVID-19 pandemic.

Results: Three distinct groups of TPL providers have different sense and action processes impacting their business operations. This research shows how an understanding of servitisation is relevant for TPL theory. Finally, we develop the strategic perspective of TPL providers by defining TPL providers as value-cocreating relationships that can help manage the complexities of logistics services.

Conclusion: This research shows that TPL providers play an important role in crises, as they contribute to solving customer problems. This role appears to be strengthened during crises, but it imposes great demands on TPL providers.

Contribution: Third-party logistics providers work with their customers during crises. The sensemaking view emphasises the importance of personnel, organisational commitment, capacity and expectations during crises. This is an interplay that requires adaptation to short-term changes in operational processes and adaptability in long-term operations.

Keywords: enacted sensemaking; strategy; organising; value cocreation; qualitative.

Introduction

Sensemaking in times of crisis is essential to facilitate functioning societal and organisational processes (Craighead, Ketchen & Darby 2020). While the coronavirus disease 2019 (COVID-19) pandemic crisis influenced all parts and processes of society, logistics enabled the distribution of food, medicine and other necessities. Logistics service providers seem to have developed an organisational ability to enact dynamic and complex challenges that served society well during the crisis. After such a pandemic crisis, there is an opportunity to learn about the logistics actions taken and their consequences, because logistics service provider sensemaking is a knowledge gap. In particular, when logistics service providers act during a crisis and face key constraints, insights can be obtained into the sensemaking processes, including interpretations, commitment, capacity evaluations and expectations. This is important because the world may very well experience more and different types of crises in the future and analysing crisis situations facilitates important sensemaking that also reduces the likelihood of severe crisis effects (Weick 1988).

There is a dichotomy at the heart of third-party logistics (TPL) strategic operations (Borgström, Hertz & Jensen 2021). On the one hand, adaptation to customers is high, and customers typically rely on TPL providers for more services over time. Adapting to customers takes time, and it can take several years to fully understand a customer's business. On the other hand, the very strong cost focus of the industry implies that the available flexibility is organised, planned and controlled. Customers thus influence TPL strategic development, but TPL adaptation and the flexibility of their operations are rarely explored in the logistics literature (Cui, Su & Hertz 2012; Flint et al. 2005;

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Jahre & Fabbe-Costes 2005). Thus, we see the enacted sensemaking of TPL providers during a crisis as an opportunity to explore their strategic operations. Third-party logistics providers can be expected to use control, standard procedures and communication to mitigate disruptions in a dynamic and complex context, as evidenced by the South African TPL sector (Blom & Niemann 2022; Meyer et al. 2019). Moreover, Karl Weick's concept of sensemaking offers insights into how TPL providers think and act together with customers during a crisis (Weick 1988; Weick et al. 2005). This resonates with South African TPL actions, that is, in terms of collaborative sensemaking related to future actions (Meyer et al. 2019). While the sensemaking concept is widely recognised in management and organisation studies in general (Christianson & Barton 2021; Sandberg & Tsoukas 2015), its potential has not yet been developed in the logistics and transport management literature. There is a research gap in that the COVID-19 pandemic crisis can provide insights into the study of sensemaking processes and 'what that was all about' (Weick 2020:1429).

The aim is to understand the TPL strategic implications of the COVID-19 pandemic crisis, specifically how TPL providers make sense of and respond to crises. The research questions are as follows:

RQ1: How has the COVID-19 pandemic crisis affected the business operations of TPL providers?

RQ2: What have TPL providers learnt from enacting the crisis, and how has this experience affected their strategic development?

The next section covers the theoretical framework of TPL providers' sensemaking, which is pivotal to understanding strategic TPL processes in times of crisis and beyond. Thereafter, the interpretative and qualitative study, which includes interview data with media analysis, annual reports and sector reports, is explained. The analysis shows how sensemaking was a critical component of TPL providers' response to the crisis and of their subsequent development of new strategies both for managing the crisis and for responding to business opportunities that arose because of the crisis. In the conclusions, insights into TPL providers' enacted sensemaking with long-term and short-term strategic implications for actions during crises are discussed.

Theory

The TPL and logistics literature is maturing with several literature reviews (Marasco 2008; Selviaridis & Spring 2007; Sheikh & Rana 2014), and it is developing insights into TPL strategic management (Borgström et al. 2021; El Baz & Laguir 2017; Scarsi & Spinelli 2017) and the development processes that take place between TPL providers and their customers (Flint et al. 2005).

Third-party logistics business operations

Third-party logistics providers have close relationships with industrial supply chain firms. These relationships connect industrial supply chains' customers with their TPL providers.

Within this triad, logistics services are provided, from basic to customised ones, in short- or long-term relationships, with the aim of effectiveness and efficiency (Bask 2001:473; see also Premkumar, Gopinath & Mateen 2021:553). Customer value is created by focusing on core businesses and emphasising logistics performance. Furthermore, the customer requirements and success factors of TPL relationships and performance are evolving to handle complex matters with precision (Maloni & Carter 2006).

The basic services provided by TPL providers were initially often described as transportation, warehousing and a set of added services such as package handling and breaking bulk (Stefansson 2006). Third-party logistics providers play some role risk handling, such as acting as a buffer in terms of payment and operational risk related to process improvements (Jensen 2010). A buyer that outsources its freight payments may engage less frequently with its TPL provider than another that has outsourced all its order management and distribution operations (Maloni & Carter 2006). For TPL providers, the focus is increasingly placed on warehousing services with several value-added services, which form the basis of their customer offer (Cui & Hertz 2011).

The list of potential services provided by a TPL is long but not exclusive, in the sense that many of the individual services can be offered by other types of companies as well. Indeed, adaptation and tailoring to customer requirements have traditionally been as important as the range of services itself (Hertz & Alfredsson 2003). This is also the source of one of the challenges facing larger TPL providers that often offer comprehensive services in terms of number, scope and geographical coverage; if an adaptation is too specific, any potential advantages of scale could be lost (Jahre & Fabbe-Costes 2005; Maloni & Carter 2006; Prockl, Pflaum & Kotzab 2012). In practice, many TPL providers specialise in certain industries or customers with similar requirements and can develop together with their customers (Borgström et al. 2021; Flint et al. 2005; Stefansson 2006). Over time, the industry has expanded, and many of the more specialised services have become relatively standardised (Mortensen & Lemoine 2008). However, a TPL relationship consists of competence development for both parties. In addition to delivering logistics services, TPL providers also offer experience and knowledge on supply chain management, such as that related to change processes with operations involving alternative logistics corridors with in-house adjustments and initiatives (Halldórsson & Skjøtt-Larsen 2004). New competences and resources are added as new challenges appear (Borgström et al. 2021).

Some specific COVID-19 pandemic crisis-related challenges for TPL providers are shipment delays, travel restrictions, supply and demand disruptions, financial stress and mandatory shutdowns (Dovbischuk 2022). Some specific adaptations are new operational procedures, COVID-19 response teams and guidelines and the diversification of customers or industries (Dovbischuk 2022). Third-party logistics providers play an active role in crises based on their

competence and inherent flexibility, which they learn from integrating with specific customers. The TPL–client relationship is usually long-term oriented, and it is relatively hard for a TPL firm to develop as it requires dedicated resources and specialised knowledge to do so (Cui & Hertz 2011).

Third-party logistics providers' ability to learn from experience is key, not only in response to crises such as the COVID-19 pandemic in relation to developing necessary adaptations (Dovbischuk 2022; Hohenstein 2022) but also in strategic development and organising for business development (Flint et al. 2005; Halldórsson & Skjøtt-Larsen 2004; Sornn-Friese 2005). Actual management is performed through close internal and external collaboration, communication, control and standard operating procedures (Blom & Niemann 2022; Meyer et al. 2019). Actual TPL robustness and agility depend upon TPL providers' degree of collaboration, communication, company culture for action, digital communication and information sharing and human resources that enact and manage risk (Hohenstein 2022). Third-party logistics providers manage by focusing on prioritising safety, modifying operational plans, improving communication, investing in training, optimising hub networks, introducing modified or new methods and adapting modified human resource policies (Ashraf et al. 2021). Third-party logistics providers' key capabilities in crises are to distribute new knowledge, to train employees effectively, to develop cross-functional collaboration within the firm, to develop long-term interfirm relationships with business partners, to learn from rivals and to pursue win–win relationships with them (Dovbischuk 2022).

How TPL providers are organising resources and capabilities with the necessary adaptations to changing conditions may very well be built into TPL providers' operational methods. Karl Weick's theorising on sensemaking has had a tremendous impact on management studies (Cornelissen 2010; Sandberg & Tsoukas 2015; Tsoukas et al. 2020) but has had little influence on transport and supply chain management studies or the organisation that fosters TPL business development. Times of crisis highlight the enacted sensemaking process that is essential for meaningful action and strategising (Colville, Waterman & Weick 1999).

Enacted sensemaking in crises and strategy

Sensemaking is 'the ongoing retrospective development of plausible images that rationalize what people are doing' (Weick, Sutcliffe & Obstfeld 2005:409). Crises are, in Weick's conceptualisation, 'characterized by low probability/high consequence events that threaten the most fundamental goals of an organization' (Weick 1988:305). The sensemaking process determines the adequacy of actions taken and crisis prevention, according to Weick (1988). It establishes the situation going forward by looking backwards to interpret plausible actions in an intense manner. Sensemaking processes can be studied during a crisis, as they are intensified in such contexts (Weick 2010). '[A]s a crisis becomes more severe, sensemaking intensifies, which normally lessens the

crisis severity, which then reduces the sensemaking' (Weick 2010:542).

Sensemaking is an interplay between experience and understanding (Weick 2020). The microlevel activities enact order, which is then read off retrospectively as justification. Such processes risk amplifying 'what is', regardless of whether it is a positive or negative outcome of such a crisis management process (Weick 2020). It is thus likely that outcomes of the COVID-19 pandemic crisis management process amplify 'what is' of TPL providers' strategic development together with insights into TPLs' sensemaking process.

Weick's (1988) enacted-sensemaking theorising is key to gaining important insights into sensemaking in the contexts of organisational change (Maitlis & Sonenshein 2010), strategic processes (Balogun et al. 2014) and strategic change (Rouleau & Balogun 2011), among others. Enacted sensemaking can be studied via event analyses of enacted crises or via process studies of enacted crises. Event analyses rely on seven descriptors that identify the microlevel activities in an event (Weick 1995:133–168). Enactment is one, and the other six are social context, identity, retrospect, reliance on cues, ongoing experience and updated plausibility (Weick 1995). Process analysis focuses on sense and action processes, that is, accounts that help sensemakers create a narrative to act out (Sandberg & Tsoukas 2015).

From a process perspective, an organisation's ability to manage real-time crises resides in its organisational commitment, capacity and expectations (Cornelissen 2010; Weick 1988). Sensemaking of crises does not necessarily focus on change but instead focuses on stability or adaptation and adaptability as parallel processes (Tsoukas et al. 2020). The sensemaking lens is expressed as, 'How can I know what I think until I see what I say?' (Weick 1988:307). Commitment, capacity and expectations are situational descriptors of the set of beliefs that explain actor worlds and cause-and-effect relations in actual sensemaking processes. Commitment is an agreed-upon way of sensemaking and acting that is sticky over time and becomes an organisational assumption. Organisational capacity describes the number and diversity of actors available to act and interpret on behalf of organisational competence for skilful development. Expectations denote the standard way of acting, for example, based on standard operating procedures. Third-party logistics organisations' enacted sensemaking is offered as a theoretical tool along with the commitment, capacity and expectations descriptors (Table 1).

From a crisis management perspective, sensemaking in the COVID-19 pandemic crisis management process was focused on 'interactive complexity in the presence of tight coupling' (Perrow 1984:11). A pandemic crisis causes shifts in demand and supply because of, for example, raw material shortages, supply delays and decreased services with complex effects (Ivanov 2020). This is seen, for example, as a ripple effect when a disruption cascades (downstream) and impacts

TABLE 1: Analysing third-party logistics sensemaking processes.

Commitment	Capacity	Expectations
The sensemaking during a crisis that determines the severity of the crisis is influenced by the following:		
Once a person is committed to an action, he or she builds an explanation that justifies that action. Such explanation tends to persist and becomes a taken-for-granted assumption. The commitment of TPL providers is seen in actions related to customer closeness cues about customer activities among customer-adapting TPL providers.	The number of and diversity of actors in the organisation available to act and interpret influence understanding and crisis management. These have hands-on experience and knowledge to sense the variation in what they face. For example, the capacity of TPL providers is seen in how these organisations take advantage of their actors' perceptions and the distributed competence and control within their organisational hierarchies. Coordination technology is widespread in TPL organisations and often used during stressful situations to adjust daily operations based on experiences of historical problems and solutions.	The standard actions of the organisation matter. If attention is given to procedures, details and standards, then sensemaking is more likely to adhere to a constructive trajectory in the crisis management process. TPL providers' core can be seen in individuals' competence and coordination in providing services to a range of supply chains. They manage dynamic coordination under complex circumstances.

Source: Adapted from Weick, K.E., 1988, 'Enacted sensemaking in crisis situations', *Journal of Management Studies* 25(4), 305–317. <https://doi.org/10.1111/j.1467-6486.1988.tb00039.x>
 TPL, third-party logistics.

supply chain performance (Craighead et al. 2020). According to Ali, Rahman and Frederico (2021), a balance of vulnerabilities and capabilities increases the resilience of supply chains. Third-party logistics providers play an important role in supply chains with low capabilities and high vulnerabilities, as they maintain this balance. An important capability is related to revising production plans in the situations of both demand and supply disruption (Paul & Chowdhury 2020).

Method

The aim of this article is to provide an abductive understanding by exploring unique aspects of TPL strategic development with a theoretical toolbox, giving attention to the narrative development processes of the COVID-19 pandemic crisis. Below, we focus in particular on the data collection, analysis and trustworthiness of the study.

Data collection

The first stage of data collection in the research process involved six interviews conducted between May and June 2021 with TPL companies' senior managers and business managers on their thoughts regarding supply chain disruptions, responses and operations implications. The interviews were performed face-to-face, based on an open-ended interview guide that was sent in advance to the respondents. Two of the TPL companies were among Sweden's largest TPL providers based on m² of warehouse space, and four were small or medium-sized TPL providers. This sample frame is a result of pre-existing relationships, thus a reflected convenience sample. After this stage, a further theoretical and empirical study was performed in line with the applied abductive research process to further develop understanding (Borgström 2012).

The next stage aims at sensemaking understanding and consisted of an interpretative and qualitative study based on two databases, namely Retriever Business, which has information on all Swedish companies, and Mediearkivet, a public Scandinavian database that gives access to news published in newspapers, magazines and the industrial press. Questions from the interview guide used for the initial data collection were refined to fit the second method and the refined research questions. This qualitative study

covered the 10 largest TPLs in Sweden, broadening the initial respondent group. The data collection goal was to learn about these industry actors and identify the developments. The sample is 10 of Sweden's largest TPL providers based on m² of warehouse space, including two from the first stage and the four that are small- or medium-sized TPL providers, now with enriched data. This means a sample of TPL providers with potential divergent strategic developments. The data were taken from the 14 companies' annual reports and three sector reports. Annual reports inform about performance indicators (turnover, profit and loss statements), and qualitative statements are given by chief executive officers (CEOs) on development. Data derived from news articles related to the 14 companies were used to provide the context, such as the industry's interpretation of the crisis (transportation and logistics) and specific actors' development from March 2020 to December 2021. This rich data was sorted by the research group to create a database with variables for warehouse space (in square metres), number of employees, types of focused customers and operational coverage, as shown in Table 2. In addition, the data covered the TPL companies' financial numbers, major changes and changes in services or in customer relationships.

The interviews were recorded and transcribed directly after each interview by the researchers. The qualitative data were placed in a database (data from interviews, Retriever Business and Mediearkivet, as is illustrated in Table 2) and shared among the researchers such that we could develop the data analysis processes. The sensemaking of business operations was interpreted as sense and action processes with their corresponding outcomes for assessing TPL business operations and TPL strategic development.

Data analysis

The material was interpreted through different types of narratives, such as illustrative cases based on the material, which were then discussed among peers (Sandberg & Tsoukas 2015). The different methods (Table 2) yielded findings that were interpreted and contrasted in the research group to understand different facets of the subject. Three cases emerged through the interpretative process, namely 'large and successful'; 'successful – customer-oriented' and 'struggling'; these represent the three basic types of strategic development. Performance indicators, customer bases and

TABLE 2: Excerpt from research database with data from interviews, Retriever Business and Mediearkivet.

Sources	e.g. Warehouse space – m ²	e.g. Focal customers	e.g. Operations coverage
Media analysis: between March 2020 and December 2021; personal interviews: between 10 May and 30 May 2021	600 000	Broad range, notably retail	Scandinavia
	324 000	Not specified, broad	Worldwide
	230 000	Retail, defence logistics, e-commerce	Sweden
	200 000	Retail, automotive, healthcare, industrial, technology; '[f]ew but large customers'	Worldwide
	210 000	Medical logistics – all areas	Scandinavia
	180 000	Broad range – not specific to Sweden	Worldwide
	150 000 (2018)	Furniture – large retailers, importers and producers	Sweden
	200 000	Defence logistics, medical, industrial, books	Sweden
	165 000	E-commerce	Sweden
	200 000	Automotive, e-commerce (and others), drinks distribution, medical items	Sweden
	200 000	Mobile phones, home electronics; specialised retail chains, operation of 3PL solutions	Sweden
	22 000	Market material – health products and food and cleaning products	Nordic countries
	15 000	B2B customers (approximately 20 customers) electric bicycles, fashion, electronics	Nordic countries
	40 000	Small companies in Nybro and Oskarhamn and a large company in Jönköping	Finland and Sweden

the characteristics of business operations (three per TPL provider) were used to identify insights into the TPL providers in each group. The unit of analysis was the sense and action processes of each group, which were based on noticing, meaning-making and acting (in line with recommendations for studying sensemaking processes [Christianson & Barton 2021]).

To understand the TPL providers' responses to the crisis and their subsequent development of new strategies both for managing the crisis and responding to business opportunities that arose because of the crisis, in our abductive process, we considered crisis management ideas on pandemics, focusing on scope, issues of spillover and shifts in the supply chain (Craighead et al. 2020). However, in the current analysis, we chose to keep the focus on sense-making and the action processes found among the examined TPL providers.

Thus, the current analysis focused on the different sizes of TPL providers and how the COVID-19 pandemic crisis affected the business operations of TPL providers, their reflections and their further development. Therefore, each TPL's enactment was interpreted as a unique insight into one of the three illustrative cases.

Trustworthiness

An explorative research design was adopted to reflect the purpose of the research; this type of study should be critically questioned based on its rigour and relevance rather than its generalisability (Borgström 2012). The rigour of the abductive process stems from transparent and coherent choices made during the research process (Dubois & Gibbert 2010) and constant examinations of the claims made based on research (Mentzer 2008). An explorative, abductive study can facilitate transport and supply chain management research via learning and responsiveness to new insights and its new perspective (Borgström 2012).

This study is bounded in time by the pandemic phase, a crisis that enables the study of sensemaking (Weick 1988). The resulting summative narratives (large and successful;

successful – customer-oriented; and struggler) are purposeful for the further interpretation of enacted sensemaking in times of crisis and TPL providers' strategic development but are not grounded as significant categories outside this study.

The sensemaking perspective provides new insights into organising processes that accompany the strategic development of the TPL business. These processes are of critical importance for professionals and TPL researchers, making the study relevant (Flynn 2008). Weick's seminal article on sensemaking in times of crisis lends rigour to the conclusions of this study, as '[a] rigorous and thorough study has a match between a body of strong theory and the ambiguous empirical matter used to guide research' (Borgström 2012:845). The interpretative approach for TPL strategic issues relies on the TPL strategic management literature and organisation studies as a useful foundation to provide new insights.

The criteria chosen, rigour and relevance, emerge from our interpretative constructivist approach and methods chosen (Borgström 2012; Manuj & Pohlen 2012). The quality criteria that underpin the credibility of this qualitative study are underpinned by the ideas of '[m]ultiple types of data, researcher viewpoints, theoretical frames, and methods of analysis allow different facets of problems to be explored, increases scope, deepens understanding, and encourages consistent (re) interpretation' (Tracy 2010:843).

The context of responding to the COVID-19 pandemic crisis is novel compared with pre-existing knowledge about TPL companies' strategies and management interactions. The approach taken here is to focus on the contextual uniqueness of the TPL's response under investigation. This study is achieved through an extensive and detailed findings section expressing the richness of the data and a detailed understanding of the TPL companies in their response to the COVID-19 pandemic crisis through the lens of sensemaking processes.

TABLE 3: Per-company findings: Large and successful.

Firm	Performance indicators	Customer focus	Business operation explanation 1	Business operation explanation 2	Business operation explanation 3
1	Largely unchanged	Broad, including retail	There have been large volume variations, but the company overall is not strongly affected because of its diversified customer base	Continuing to focus on and develop e-commerce	Investing in automation and new facilities
2	Largely unchanged	Broad	The company has won and lost some customer contracts but has not been strongly affected because of its diversified customer base	Developing facilities that match customer needs and maintaining flexibility through continuous dialogue and closeness with customers	Balancing volume changes, creating new supply chains where necessary
3	Largely unchanged	FMCG, medical	Increased the level of communication for employees, provided a high level of information and maintained good dialogue and a strong sense of responsibility among all its employees	Investing in internal communication platforms to ensure transparency and know-how throughout the organisation	The company communicates well with customers; it maintains and develops sustainability projects
4	Largely unchanged	Consumer and retail, automotive, health, industrial, tech	New customer contracts and growth among present customers are matched by increased warehouse space	Increased problems for customers offer more activities and increased demand for solutions	The company is training more personnel with specific knowledge in logistics operations (pick and pack)
5	Largely unchanged	FMCG, medical, industrial, books	The company is continuing on its chosen strategic path; it has invested in autostore and automation	Developing an operational excellence focus through strong policies and well-functioning routines and development work	Strengthening customer relations and developing new customer relations; it is developing relations with employees and focuses on sustainability
6	Largely unchanged	Automotive, e-commerce, drinks, medical	Continuing on its chosen strategic path, including growth in e-commerce	There has been some fluctuation in certain segments (automotive), but this has been balanced by increased e-commerce business	-
7	Largely unchanged	Broad	Some key customers have been affected heavily, but this has been balanced	Brought in new customers that have increased the utilisation of warehouses and introduced new management	Continued investing in automation for better operational flexibility and productivity with less dependence on employee time
8	Largely unchanged	E-commerce	Worked together with customers on a long-term basis to create effective and sustainable logistics solutions	Developed innovative customer-oriented services for new and existing customers	Investing in infrastructure with a focus on automation and IT

FMCG, fast-moving consumer goods; IT, information technology.

Findings

To address RQ1, we focused on the operations of TPL providers. According to Hao (2020), preparedness measures, such as prepositioning, prestocking, making frame agreements with suppliers and procurement routines, need to take the lead time on critical assets along supply chains into account. During the examined crisis, when existing suppliers and supply chains could not deliver quickly enough, product shortages were created and searches for products and deliveries all over the world were triggered. Logistics and transportation were prioritised because of a lack of available transport capacity, and this sparked interest in warehouses and solutions. The increasing need for buffers induced an increase in warehouse space during 2021, and plans for more space were shown to be substantial in Sweden, that is, 1.4 million m² for 2022 (Intelligent Logistik 2022). The establishment of e-commerce has also increased. Third-party logistics providers examined in the present study focus on warehousing operations.

Depending on their ability to manage crises, TPL providers can be placed into three general categories of business operations (large and successful; successful – customer-oriented; struggling) depending on the way in which they dealt with the COVID-19 pandemic crisis and their subsequent strategic enactment.

Large and successful

This category consists of eight companies (Table 3) and includes some large international logistics companies that are quite typical in that they experience great volume

variation; however, the companies overall are not strongly affected in relation to turnover because of their diversified customer base. Many of these companies focus on the development of e-commerce, including investments in new competencies and new facilities. Similarly, some of these TPL firms have lost some customer contracts and won some new contracts, but their overall result in relation to turnover is largely unchanged. They also have developed facilities that matched specific customers' needs and maintained flexibility through continuous dialogue and closeness with customers. One specific firm with retail customers emphasises communication, both with employees and customers, and continues the strategic focus on sustainability. This result is quite typical – companies in this category tend to have a clear strategic focus and maintain this focus through crises even as they adapt. The choices are underpinned by considerable resources so that the companies can dedicate specific facilities to certain customers, and flexibility typically entails adapting efficient processes to specific customers.

From this study, it seems likely that the companies in this category have strengthened their positions, partially by emphasising competencies they were already developing and partially by adapting their strategic thinking.

Successful – Customer-oriented

This category consists of three companies: 9–11 (see Table 4). Company 9 is focused on changed customer demand and how to increase the customer focus of employees. In this company, new customer demands are consolidated through a data focus, and investments are being made in facilities and automation. Company 10 has worked intensively with

TABLE 4: Per company findings: Customer-oriented.

Firm	Performance indicators	Customer focus	Business operation explanation 1	Business operation explanation 2	Business operation explanation 3
9	Largely unchanged	Selected customers in three cities	Focused on changed customer demand and an increased customer focus among employees	Consolidating new customer demands through focus on data	Investing in facilities and automation
10	Largely unchanged	Marketing materials, health and food, cleaning products	Worked intensively with customers to bring out new business opportunities	Diversification of customers to balance risk	Attracting different customers through maintaining flexibility and competence as a small actor
11	All-time high	Electronics, mobile phones, including business segment	Focusing on customers' need to adapt; surprised at how well this approach worked out	Competing based on digital solutions and a knowledge of customers' business	Investing in employees and a stable workforce

TABLE 5: Per company findings: Struggling.

Firm	Performance indicators	Customer focus	Business operation explanation 1	Business operation explanation 2	Business operation explanation 3
12	Negative	Furniture	Reduced activities, facilities and personnel	Focus on reducing costs and using government support	Renegotiated with customers and employees – an operational rather than strategic focus
13	Negative	Broad	'Turnaround mode' – taking all customers	Ownership change is affecting their response	-
14	Negative	Retail, FMCG and e-commerce	Ownership change is affecting their response	Uncertainty as to the effect of COVID-19	Known as innovative and pioneering

FMCG, fast-moving consumer goods; COVID-19, coronavirus disease 2019.

customers to identify new business opportunities. There has been successful diversification to balance risk, and new customers have been attracted by maintaining both flexibility and competence as small actors. Company 11 emphasises that the pandemic crisis period has induced an 'all-time high' for turnover, and it is focused on customers' need to adapt. The company has been surprised at how well its strategic focus worked out compared with their expectations. Competition emphasises digital solutions and a knowledge of customers' business, as well as investments in skilled employees and a stable workforce. The emphasis seems to be on close contact with customers and their demands rather than on new investments in facilities or hardware.

Strugglers

This category consists of three of the TPL companies 12–14 (see Table 5). Company 12 has seen reduced activities and has reduced its available warehouse space and personnel. The focus has been on reducing costs and taking advantage of transitional government support. The strategic focus is not entirely clear, and terms have been renegotiated with customers and employees. Number 13 has experienced an ownership change, with more entrepreneurial management coming in. Moreover, they are in a 'turnaround mode' and seem to take on all possible customers without a strategic view. Company 14 was acquired by a large Nordic logistics company, and their statements point to uncertainty in relation to the effect of and responses to the COVID-19 pandemic crisis. Additionally, this company is known for being innovative and pioneering within the TPL sector. Overall, the companies seem to be rather heavily burdened, as they face multiple challenges that impact their operations and networks of customers, competitors, partners, etc.

More precisely, we see several dimensions in which the COVID-19 pandemic crisis has affected the business operations of these TPL providers. The ongoing move towards more e-commerce and automation has generally

continued and has been successful for most of the TPL providers. We also see a shift in operations designed to address specific COVID-19 pandemic crisis-related challenges, such as protecting TPL operations and handling specific medical goods. The TPL providers show considerable flexibility related to adapting to changes in demand both in terms of volume in different segments and in terms of the content of their offer to customers. To a great extent, this has been handled by emphasising closer cooperation with customers.

Analysis

An analysis of organising TPL business operations is key to understanding TPL strategic development. The sensemaking of these operations is interpreted from company outcomes and related sense and action processes. Three major outcomes are apparent. One group of TPL providers is shown to be struggling with little success in its outcomes, and two groups of TPL providers are successful; one is distinguished by its large actors and the other by its customer orientation that dynamically integrates customer challenges such as business opportunities.

Business operations of the large and successful firms based on their sense and action processes

The actions of the firms in the large and successful TPL category pertaining to organisation in times of crisis express their intensified sensemaking, including the ongoing retrospective development of plausible images where actions are based on experience and an understanding of dynamics (Weick et al. 2005, Weick 2010, 2020). The eight firms that make up this category have advantages in terms of the ability to manage volume variations, manage overlapping customer contracts and engage in intense communication with customers, and they have the knowledge required to manage customer needs in crises, especially in terms of warehouses and automated warehouse operations for e-commerce. We continue our analysis of the large and successful TPL providers (companies 1–8) learning from enacting the COVID-19 pandemic crisis, in

line with Weick (1988), by highlighting aspects of commitment, capacity and expectations from their narratives.

The distinguishing features of the organisational commitment of all the companies in the network emphasise working with customers, suppliers, partners, competitors and authorities. The organisational assumption is that competence for change is essential, and investments in technology, customer relations and experiences are a way to achieve this. A commitment to automate warehouse solutions for customers is crucial.

The organisational capacity of these large companies lies in their capacity to dedicate resources to individual customers and their competence development to deal with new challenges, which includes sustainability and the importance of making investments in skilled employees (Companies 3, 5, 8). The number and diversity of a company's customers influence its understanding and crisis management.

Organisational expectations regarding how to act are a combination of customer-oriented procedures and existing procedures that are critical to being flexible and agile. There are specific functions and specialists available to handle challenges such as the effects of a pandemic crisis. Sensemaking implies that the increased problems of customers introduce more activities and an increased demand for solutions (from the company 4 narrative), which are managed (in the words of company 5) by an operational excellence focus through strong policies and well-functioning routines and development work.

Business operations of the successful and customer-oriented firms based on their sense and action processes

In times of crisis, TPL providers do not necessarily need to be large to be successful. A part of the successful category of TPL providers is distinguished by customer orientation rather than size (Companies 9, 10, 11). Despite noteworthy investments in warehouse abilities, the main lessons learned by these companies during the crisis relate to data management, digital solutions and engagement with customers and employees in relation to their sensemaking of how they take the opportunity to support customers in their situations and develop new services, creating an all-time-high level of demand.

The successful, customer-oriented TPL providers' (Companies 9–11) enacting is noteworthy. First, the organisational commitment of all three companies focuses on demand-based investments related to changed customer needs. A similar focus is seen in how personnel are integrated as key elements of organisational performance.

Second, the organisational capacity to make sense of a crisis is vulnerable because a limited number of individuals are responsible for each company. Capacity through close contact

with customers enables organisations to act and interpret development.

Third, expectations, such as a standard way of acting in which continuous communication with customers with the goal of understanding upcoming needs is combined with a focus on digital development and the ability to handle customer data. Another standard that stands out is retaining and developing the TPL providers' own personnel for operational logistics.

Business operations of the strugglers based on their sense and action processes

The strugglers have different reasons for their problems related to finding a constructive strategy in the crisis management process. These three companies reproduce a level of stability that seems unsynchronised with their operative context by enacting aspects of the environment that add problems related to the crisis to the problems of the firm. In line with Weick (1988), we highlight aspects of commitment, capacity and expectations in the narratives of the struggling firms' organising to better understand what these specific TPL providers (Companies 12–14) learnt from enacting the crisis. In all, their sensemaking processes appear to be self-detrimental, but their analysis merely focuses on highlights derived from their narratives. Examples of organisational commitment to the organisations' taken-for-granted assumptions are company 12's focus on changing its customer offer just before the COVID-19 pandemic crisis, but this seems to have overstretched the company's resources during the pandemic crisis. Likewise, both companies 13 and 14 experienced a change in ownership during or immediately before the pandemic crisis, which challenged both organisations. The ordinary way to handle such complexities has arguably been unsettled for all these organisations as they faced challenges from the COVID-19 pandemic crisis.

Company 12 effectively reduced its capacity through a focus on cost-cutting and personnel reductions. Company 14 has pioneered by keeping and developing its operative personnel but has also seen a change in the ownership of the firm, a planned change in the customer mix that has affected customer relations and partners. Company 13 has brought in a different type of senior management but lost the corporate width of the actors in the organisation available to interpret developments.

Organisational expectations regarding how to act matter in the sensemaking process of enacting the crisis. For example, Company 14 is continuously developing new services and using new technologies, and this process became more complex during its takeover and the pandemic crisis. Moreover, Company 13's ongoing turnaround process means it does not have the same established set of standard operating procedures. Similarly, Company 12 is in the middle of decreasing

business and a change in operating procedures to facilitate a strategic change.

Third-party logistics strategic development

A TPL provider's ability to learn from experience is key in terms of its response to crises such as the COVID-19 pandemic, not only in relation to developing necessary adaptations but also in relation to strategic development and organising for business development (Flint et al. 2005; Halldórsson & Skjøtt-Larsen 2004; Sornn-Friese 2005). Here, we show how this plays out for both the struggling companies and the successful companies and connect this analysis to both value creation and the original definition of TPL used here.

The enacted sensemaking process analysis of the narratives that are acted out highlights three types of strategic development. In addition, insights into less successful development (the strugglers) serve as insights into different advantages related to TPL strategic development. The TPL strugglers' focus on the adaptation of the organisation to, for example, a new owner, seems to impair the adaptability they need to address COVID-19 pandemic crisis. Integrating the organisation itself rather than coordinating with customers is a strategic trade-off discussed by logistics researchers (Jahre & Fabbe-Costes 2005), and it entails important parallel processes, as discussed by organisational scholars (Tsoukas et al. 2020). Both discussions are rooted in Weick's focus on organising processes. This line of argumentation implies that the strugglers' adaptability, such as their dynamic flexibility, decreased because of their adaptation, which was not necessarily a problem before the pandemic crisis, when customers were reluctant to facilitate integration (Mortensen & Lemoine 2008). However, the dynamic and complex context of the pandemic crisis demanded collaborative meaning-making of actions and management through close internal and external collaboration, communication, control and standard operating procedures (Blom & Niemann 2022; Meyer et al. 2019).

Successful TPL providers are better positioned to take advantage of the parallel processes of adaptation and adaptability through close collaboration, communication, control and standard operating procedures. The intensified sensemaking processes of the successful and large TPL providers and of the successful, customer-oriented TPL providers are rather a confirmation of their chosen strategic trajectory, although it is adapted to customer dynamics.

Previous categorisations discuss different types of TPL competitive advantages. The first is efficiency oriented and functional (service factory by Prockl et al. 2012) or focused on service development (Hertz & Alfredsson 2003), and the other consists of complex, relationship-intense servitisation that directly develops the customer's processes (service lernstatt by Prockl et al. 2012) or facilitates customer development (Hertz & Alfredsson 2003). Our analysis indicates that both archetypes increase their coordination

towards specific customers in times of crisis. Developing couplings between TPL providers and customers and integrating and developing warehouse personnel develop TPL-customer organisation. This is in line with previous conceptualisations of how the challenges of servitisation, digitalisation and e-commerce are strategic opportunities for TPL growth because they form new complexities related to logistics service offerings (Borgström et al. 2021; Flint et al. 2005). Our analysis adds that these opportunities are taken advantage of across the previous archetypes of TPL actors. Both small actors and large actors succeed through a customer orientation. The process of adaptability matches actors' adaptation specifically through actors' sense and action processes, which are made possible by customers' need to manage complexities.

Bask's (2001) definition of TPL focuses on short- or long-term relationships in which logistics services are offered with the aim of effectiveness and efficiency. The definition is in line with Prockl et al.'s (2012) archetypes, which are based on different types of value creation. However, the customer orientation apparent in times of crisis is a servitisation process that consists of more than an actor's value creation potential in a service offer; it is a collaborative meaning-making and value-cocreating relationship. Therefore, TPL relationships may be redefined as value-cocreating relationships that can help manage the complexities of logistics services. This redefinition offers different opportunities for different actors to innovate by managing learning and engaging in interorganisational learning that develops both parties in relationships (in line with Flint et al. 2005), and this is essentially enacted by communication, employee training and learning in collaborative relationships (see also Dovbischuk 2022; Hohenstein 2022).

Conclusion

The purpose of this article is to understand the strategic implications of the COVID-19 pandemic crisis; more specifically, to understand how TPL providers make sense of and respond to crises. The research questions were as follows. RQ1: How has the COVID-19 pandemic crisis affected the business operations of the TPL provider? RQ2: What have TPL providers learnt from enacting the crisis, and how has this experience affected strategic development?

The role of a TPL provider necessitates close cooperation with customers and a high level of flexibility for continuous adaptation and agility in operations. In this role, a TPL provider has to be alert to changes and prepared for smaller crises. The scope of the COVID-19 pandemic crisis, however, put immense pressure on these firms' operations, requiring them to simultaneously act and make sense of what was happening. In that process, employees and customers interpreted and made sense of the situational challenges and opportunities related to logistical service development, which intensified the commitment and capacity of TPL providers. From a TPL company perspective, the companies managed these additional complexities by adapting,

developing and changing existing operations and adding new services rapidly through close communication and coordination throughout their organisations, which develop logistical services. The timing of TPL providers' actions and responses and the effects of these responses on actions are crucial parts of TPL providers' strategic processes.

How the COVID-19 pandemic crisis affected third-party logistics business operations

This study illustrates a variety of business outcomes (largely unchanged, all-time high and negative). Additionally, the examined TPL providers have a customer focus that influences their business operations differently according to situated business operation explanations (Table 3, Table 4 and Table 5). From an abstract point of view, three groups are distinguished.

The first group is distinguished by being large and successful in the COVID-19 pandemic crisis, and there is little change in these companies' objective performance indicators (turnover and profit), but these companies exhibit development in their e-commerce sensemaking processes. This entails large investments in new competences and new facilities. A diversity of customers and large networks provide extensive experience related to crisis management that is applicable to upcoming complexities as they interpret and learn of them. These companies can access the resources they need for the meaning-making of changes and adaptations of operations via competencies they were already developing and by adapting their strategic thinking.

A clear feature of the next group is a customer orientation combined with success as a TPL company. These companies have been actively meaning-making together with customers; hence, their customer orientation guides them to find the best solutions and services collaboratively over time. They are part of their customers' servitisation processes and have taken on new services because of the COVID-19 pandemic crisis. These are smaller companies that have invested in skilled employees to understand the needs and expectations of their customers and the effects on their operations because of the crisis.

The final group, the firms that have struggled during the COVID-19 pandemic crisis, seems to have been in the middle of another restructuring process, such as a merger or an increase in efficiency. This tied up these companies' resources, having the typical effect of a reduced number of employees and less time for external communication. When the COVID-19 pandemic crisis struck, these companies had little time for sensemaking and fewer resources for acting. Their business operations were harmed by the COVID-19 pandemic crisis.

What have the third-party logistics providers learnt from enacting the COVID-19 pandemic crisis, and how has it affected their strategic development?

Sensemaking requires experience and an understanding of a firm's business. Therefore, firms want to see a relatively

stable and skilled workforce that can also be used as a resource for increasing customer value creation. This has adaptation and adaptability implications for the TPL providers' short-term strategic development and their actions during the crisis. In addition, there are long-term implications seen in the development of (and lack of development of) dynamic flexibility.

Strategies focusing on efficiency will be of less interest, at least for a while, because in the short term, surviving a crisis such as the COVID-19 pandemic means more collaborative sensemaking with customers. Managing through close internal and external collaboration, communication, control and standard operating procedures requires time and skills. Collaborative meaning-making may also be included as a part of standard operations in the long term. A further issue is learning in the process of servitisation to customers. The tighter connection with customers that arose during the crisis encouraged TPL providers to play a vital role in managing the upcoming complexities of the crisis. The strategic opportunities for TPL growth stem from the new complexities that the logistics service offerings manage. Thus, instead of just coping with the crisis, it is vital to find and develop new services to remain competitive. This change is an opportunity for strategic development.

Theoretical implications

The sensemaking literature of Weick (1988) has provided a deeper understanding of TPL strategic development, focusing on enactment in crisis and supporting new learning. The relevance of sensemaking also gives an understanding of how TPL providers act during crises. We develop the strategic perspective of TPL providers by defining TPL relationships as value-cocreating relationships that can help manage the complexities of logistics services.

The sensemaking view emphasises the importance of personnel and organisational commitment, capacity and expectations in relation to customers. The interplay within such a system requires adaptation to short-term changes in operational processes and the realisation of its effects on long-term operations.

Managerial implications

During the examined crisis, daily routines and processes were changed, and employees needed to adapt and change. In such a scenario, quick actions and thinking are needed but may overstretch TPL resources. This implies that firms should continuously prepare to address crises by not only training their employees but also gathering information to form an understanding and of cocreation between customers and suppliers.

Another important question that arises is, for example, when should restructuring occur? Restructuring creates a high-level vulnerability that might lead to years of financial

problems. Whether a gradual or radical change is preferred remains to be answered. Another aspect of restructuring is the uncertainty of existing supply chains, which leads to short-term demand for warehouse space and long-term changes in supplier bases. A customer orientation implies that TPL providers will restructure their current and new relationships.

Future research

We have studied large and small TPL firms in the Swedish market during a limited time frame, namely that of the COVID-19 pandemic crisis. The study examined media and interviews with some individuals from the examined TPLs (large and small) to obtain a rich picture of what was happening and to understand the TPL providers in different ways. However, a study covering long-term preparedness for crises is needed. Also, differences based on experiences and learning regarding strategic developments in different countries are needed. More research, including collaborative meaning-making with customers and suppliers during a crisis, could be another essential element in future crises. Likewise, there is a need for further research on the importance of sensemaking through national and international networking.

Acknowledgements

Competing interests

The authors have declared that no competing interest exists.

Authors' contributions

B.B., S.H. and E.K. developed the presented idea, based on initial interviews carried out by S.H., L.-M.J. and E.K. Further, all authors were involved in the collection of media study data and additional analysis of the collected data. B.B. developed the theory and the study design and performed the analysis with support from L.-M.J. L.-M.J. developed the cases with support from B.B. All authors verified the analytical methods. All authors discussed the results and contributed to the final manuscript.

Ethical considerations

This research does not involve human subjects or personal data and needs no external approval, such as ethical permit for research involving humans, in accordance with the *Swedish Ethical Review Act* (SFS 2003:460). The interviews were conducted with oral informed consent, which is recorded. According to ethical rules and guidelines for research at Malmö University Ethics Council, this research follows good research practice in line with the European Code of Conduct for Research Integrity: Revised edition (<https://allea.org/code-of-conduct/>).

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

Raw data sources are not publicly available, but the assembled and curated data can be assessed by request to authors.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

- Ali, M., Rahman, S.M. & Frederico, G.F., 2021, 'Capability components of supply chain resilience for readymade garments (RMG) sector in Bangladesh during COVID-19', *Modern Supply Chain Research and Applications* 3(2), 127–144. <https://doi.org/10.1108/MSRA-06-2020-0015>
- Ashraf, M.H., Yalcin, M.G., Zhang, J. & Ozpolat, K., 2021, 'Is the US 3PL industry overcoming paradoxes amid the pandemic?', *The International Journal of Logistics Management* 3(4), 1269–1293. <https://doi.org/10.1108/IJLM-02-2021-0110>
- Balogun, J., Jacobs, C., Jarzabkowski, P., Mantere, S. & Vaara, E., 2014, 'Placing strategy discourse in context: Sociomateriality, sensemaking, and power', *Journal of Management Studies* 51(2), 175–201. <https://doi.org/10.1111/joms.12059>
- Bask, A.H., 2001, 'Relationships among TPL providers and members of supply chains – A strategic perspective', *Journal of Business & Industrial Marketing* 16(6), 470–486. <https://doi.org/10.1108/EUM000000006021>
- Blom, T. & Niemann, W., 2022, 'Managing reputational risk during supply chain disruption recovery: A triadic logistics outsourcing perspective', *Journal of Transport and Supply Chain Management* 16, a623. <https://doi.org/10.4102/jtscm.v16i0.623>
- Borgström, B., 2012, 'Towards a methodology for studying supply chain practice', *International Journal of Physical Distribution & Logistics Management* 42(8/9), 843–862. <https://doi.org/10.1108/09600031211269785>
- Borgström, B., Hertz, S. & Jensen, L.-M., 2021, 'Strategic development of third-party logistics providers (TPLs): "Going under the floor" or "raising the roof"?'', *Industrial Marketing Management* 97, 183–192. <https://doi.org/10.1016/j.indmarman.2021.07.008>
- Christianson, M.K. & Barton, M.A., 2021, 'Sensemaking in the time of COVID-19', *Journal of Management Studies* 58(2), 572–576. <https://doi.org/10.1111/joms.12658>
- Colville, I.D., Waterman, R.H. & Weick, K.E., 1999, 'Organizing and the search for excellence: Making sense of the times in theory and practice', *Organization* 6(1), 129–148. <https://doi.org/10.1177/135050849961006>
- Cornelissen, J., 2010, 'Great strides in management studies: Introducing a new series of reflections on classic JMS articles', *Journal of Management Studies* 47(3), 533–536. <https://doi.org/10.1111/j.1467-6486.2010.00907.x>
- Craighead, C.W., Ketchen, Jr., D.J. & Darby, J.L., 2020, 'Pandemics and supply chain management research: Toward a theoretical toolbox*', *Decision Sciences* 51(4), 838–866. <https://doi.org/10.1111/deci.12468>
- Cui, L. & Hertz, S., 2011, 'Networks and capabilities as characteristics of logistics firms', *Industrial Marketing Management* 40(6), 1004–1011. <https://doi.org/10.1016/j.indmarman.2011.06.039>
- Cui, L.G., Su, S.L.I. & Hertz, S., 2012, 'Logistics innovation in China', *Transportation Journal* 51(1), 98–117. <https://doi.org/10.5325/transportationj.51.1.0098>
- Dovbischuk, I., 2022, 'Innovation-oriented dynamic capabilities of logistics service providers, dynamic resilience and firm performance during the COVID-19 pandemic', *The International Journal of Logistics Management* 33(2), 499–519. <https://doi.org/10.1108/IJLM-01-2021-0059>
- Dubois, A. & Gibbert, M., 2010, 'From complexity to transparency: Managing the interplay between theory, method and empirical phenomena in IMM case studies', *Industrial Marketing Management* 39(1), 129–136. <https://doi.org/10.1016/j.indmarman.2009.08.003>
- El Baz, J. & Laguir, I., 2017, 'Third-party logistics providers (TPLs) and environmental sustainability practices in developing countries: The case of Morocco', *International Journal of Operations and Production Management* 37(10), 1451–1474. <https://doi.org/10.1108/IJOPM-07-2015-0405>
- Flint, D.J., Larsson, E., Gammelgaard, B. & Mentzer, J.T., 2005, 'Logistics innovation: A customer value-oriented social process', *Journal of Business Logistics* 26(1), 113–148. <https://doi.org/10.1002/j.2158-1592.2005.tb00196.x>
- Flynn, B.B., 2008, 'Having it all: Rigor versus relevance in supply chain management research', *Journal of Supply Chain Management* 44(2), 63–67. <https://doi.org/10.1111/j.1745-493X.2008.00056.x>
- Halldórsson, Á. & Skjøtt-Larsen, T., 2004, 'Developing logistics competencies through third party logistics relationships', *International Journal of Operations & Production Management* 24(2), 192–206. <https://doi.org/10.1108/01443570410514885>
- Hao, K., 2020, *This is how the CDC is trying to forecast coronavirus's spread*, viewed 28 August 2020, from <https://www.technologyreview.com/2020/03/13/905313/cdc-cmu-forecasts-coronavirus-spread/>.
- Hertz, S. & Alfredsson, M., 2003, 'Strategic development of third party logistics providers', *Industrial Marketing Management* 32(2), 139–149. [https://doi.org/10.1016/S0019-8501\(02\)00228-6](https://doi.org/10.1016/S0019-8501(02)00228-6)

- Hohenstein, N.-O., 2022, 'Supply chain risk management in the COVID-19 pandemic: Strategies and empirical lessons for improving global logistics service providers' performance', *The International Journal of Logistics Management* 33(4), 1336–1365. <https://doi.org/10.1108/IJLM-02-2021-0109>
- Intelligent Logistik, 2022, *Här är Sveriges 25 bästa logistiklägen 2022*, Intelligent Logistik. viewed 12 February 2022, from <https://intelligentlogistik.com/nyhetsflode/uncategorized/har-ar-sveriges-25-basta-logistiklagen-2022/>
- Ivanov, D., 2020, 'Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case', *Transportation Research Part E: Logistics and Transportation Review* 136, 101922. <https://doi.org/10.1016/j.tre.2020.101922>
- Jahre, M. & Fabbe-Costes, N., 2005, 'Adaptation and adaptability in logistics networks', *International Journal of Logistics Research and Applications* 8(2), 143–157. <https://doi.org/10.1080/13675560500110903>
- Jensen, L.-M., 2010, 'Opportunities and constraints for intermediaries in distribution: The challenge of variety', *IMP Journal* 4(3), 194–219.
- Maitlis, S. & Sonenshein, S., 2010, 'Sensemaking in crisis and change: Inspiration and insights from Weick (1988)', *Journal of Management Studies* 47(3), 551–580. <https://doi.org/10.1111/j.1467-6486.2010.00908.x>
- Maloni, M.J. & Carter, C.R., 2006, 'Opportunities for research in third-party logistics', *Transportation Journal* 45(2), 23–38. <https://doi.org/10.2307/20713632>
- Manuj, I. & Pohlen, T.L., 2012, 'A reviewer's guide to the grounded theory methodology in logistics and supply chain management research', *International Journal of Physical Distribution & Logistics Management* 42(8/9), 784–803. <https://doi.org/10.1108/09600031211269758>
- Marasco, A., 2008, 'Third-party logistics: A literature review', *International Journal of Production Economics* 113(1), 127–147. <https://doi.org/10.1016/j.ijpe.2007.05.017>
- Mentzer, J.T., 2008, 'Rigor versus relevance: Why would we choose only one?', *Journal of Supply Chain Management* 44(2), 72–77. <https://doi.org/10.1111/j.1745-493X.2008.00058.x>
- Meyer, A., Niemann, W., Uys, G. & Beetge, D., 2019, 'An exploration of supply chain risk management in the South African third-party logistics industry', *Journal of Transport and Supply Chain Management* 19(1), 1–13. <https://doi.org/10.4102/ac.v19i1.612>
- Mortensen, O. & Lemoine, O.W., 2008, 'Integration between manufacturers and third party logistics providers?', *International Journal of Operations & Production Management* 28(4), 331–359. <https://doi.org/10.1108/01443570810861552>
- Paul, S.K. & Chowdhury, P., 2020, 'A production recovery plan in manufacturing supply chains for a high-demand item during COVID-19', *International Journal of Physical Distribution & Logistics Management* 51(2), 104–125. <https://doi.org/10.1108/IJPDLM-04-2020-0127>
- Perrow, C., 1984, *Normal accidents*, Basic Books, New York, NY.
- Premkumar, P., Gopinath, S. & Mateen, A., 2021, 'Trends in third party logistics – The past, the present & the future', *International Journal of Logistics Research and Applications* 24(6), 551–580. <https://doi.org/10.1080/13675567.2020.1782863>
- Prockl, G., Pflaum, A. & Kotzab, H., 2012, '3PL factories or lernstatts? Value-creation models for 3PL service providers', *International Journal of Physical Distribution & Logistics Management* 42(6), 544–561. <https://doi.org/10.1108/0960003121250587>
- Rouleau, L. & Balogun, J., 2011, 'Middle managers, strategic sensemaking, and discursive competence', *Journal of Management Studies* 48(5), 953–983. <https://doi.org/10.1111/j.1467-6486.2010.00941.x>
- Sandberg, J. & Tsoukas, H., 2015, 'Making sense of the sensemaking perspective: Its constituents, limitations, and opportunities for further development', *Journal of Organizational Behavior* 36(S1), S6–S32. <https://doi.org/10.1002/job.1937>
- Scarsi, R. & Spinelli, R., 2017, 'An analysis of strategic groups in the third-party logistics industry', *International Journal of Logistics Systems and Management* 27(4), 466–486. <https://doi.org/10.1504/IJLSM.2017.085224>
- Selviaridis, K. & Spring, M., 2007, 'Third party logistics: A literature review and research agenda', *The International Journal of Logistics Management* 18(1), 125–150. <https://doi.org/10.1108/09574090710748207>
- Sheikh, Z. & Rana, S., 2014, 'The role of logistics service providers in supply chain performance management: A comprehensive literature review', *International Journal of Academic Research in Business and Social Sciences* 4(5), 608. <https://doi.org/10.6007/IJARBS/v4-i5/886>
- Sornn-Friese, H., 2005, 'Interfirm linkages and the structure and evolution of the Danish trucking industry', *Transportation Journal* 44(4), 10–26. <https://doi.org/10.2307/20713612>
- Stefansson, G., 2006, 'Collaborative logistics management and the role of third-party service providers', *International Journal of Physical Distribution & Logistics Management* 36(2), 76–92. <https://doi.org/10.1108/09600030610656413>
- Tracy, S.J., 2010, 'Qualitative quality: Eight "big-tent" criteria for excellent qualitative research', *Qualitative Inquiry* 16(10), 837–851. <https://doi.org/10.1177/1077800410383121>
- Tsoukas, H., Patriotta, G., Sutcliffe, K.M. & Maitlis, S., 2020, 'On the way to Ithaka[1]: Commemorating the 50th Anniversary of the Publication of Karl E. Weick's The Social Psychology of Organizing', *Journal of Management Studies* 57(7), 1315–1330. <https://doi.org/10.1111/joms.12616>
- Weick, K.E., 1988, 'Enacted sensemaking in crisis situations', *Journal of Management Studies* 25(4), 305–317. <https://doi.org/10.1111/j.1467-6486.1988.tb00039.x>
- Weick, K.E., 1995, *Sensemaking in organizations*, Thousand Oaks, Calif.: Sage.
- Weick, K.E., 2010, 'Reflections on enacted sensemaking in the Bhopal disaster', *Journal of Management Studies* 47(3), 537–550. <https://doi.org/https://doi.org/10.1111/j.1467-6486.2010.00900.x>
- Weick, K.E., 2020, 'Sensemaking, organizing, and surpassing: A handoff*', *Journal of Management Studies* 57(7), 1420–1431. <https://doi.org/10.1111/joms.12617>
- Weick, K.E., Sutcliffe, K.M. & Obstfeld, D., 2005, 'Organizing and the process of sensemaking', *Organization Science* 16(4), 409–421. <https://doi.org/10.1287/orsc.1050.0133>