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Reconfiguration in the Apparel Industry's Global Value Chains During the COVID-19 *Pandemic*

Abstract. During the last few years, international and domestic supply chains have been affected by the COVID-19 pandemic and this has resulted in serious disruptions in companies' global value chains (GVCs). This chapter explores the motivations and actions made in global apparel industry value chains during the COVID-19 pandemic and in the post-pandemic business environment. The study has been provoked by ongoing discussions and expectations of the regionalization of global value chains (GVCs) which should occur as a consequence of the challenges and issues caused by the pandemic. The primary aim of this chapter is to provide empirical evidence on the reconfiguration of GVCs, particularly the changes in buyer-supplier relations in the global apparel industry during the COVID-19 pandemic. The business news media serves as empirical data for the conclusion, that decisions and actions in the apparel industry GVCs are mostly short-term reactions to the supply issues that occur due to the COVID-19 pandemic and the recent geopolitical shock caused by the war in Ukraine.

Keywords: global value chains, regionalization, global value chains reconfiguration, apparel industry

1. Introduction

The COVID-19 pandemic affected many businesses, and companies have reported disruptions in their global value chains (GVCs). Governments implemented lockdowns, which affected countries' economies very broadly, including economic effects on international and domestic supply chains. The economic impact of COVID-19 has strengthened the trend toward GVC reconfiguration to improve resilience, responsiveness, and efficiency. As previous studies have noted, reconfigured GVCs are organized for collaboration among geographically close economies (Gandoy & Diaz-Mora, 2020). GVCs are not static, their arrangements and relationships alter over time either as a result of changing industries

or macro-environmental shifts and unexpected changes (Kano et al., 2020), such as the COVID-19 pandemic, thus governance of the value chains has become very important nowadays. The COVID-19 pandemic has been defined as a "global shock" and it has caused major global disruptions to GVCS. Companies have tried to adopt strategies seeking to recover GVCS and achieve resilience, flexibility, responsiveness, and sustainable operations. Due to the COVID-19 pandemic, many supply chains around the globe have faced significant disruptions in vertical up and downstream, affecting demand and supply and making it imperative to study policy-making decisions and managing strategies in supply chain operations (Nikolopoulos et al., 2020).

This chapter explores the motivations and actions adopted in global apparel industry value chains during the COVID-19 pandemic and in the post-pandemic business environment. Previous research has stated (Pla-Barber et al., 2021; Elia et al., 2021), that recent works studied the governance of GVCS after the COVID-19 pandemic mostly from theoretical perspectives, thus more empirical evidence is needed. This prompted following research questions: did the pandemic global business environment encourage the apparel industry's GVCS to regionalize? and what is the motivation for GVC-related short- and long-term actions over the COVID-19 pandemic?

The study aims to provide empirical evidence by analysing business news media publications on the reconfiguration of GVCS, particularly buyer-supplier relations in the global apparel industry and their short and long actions during the COVID-19 pandemic. The apparel industry was selected as a relevant case to explore regionalization patterns empirically, as this industry is one of the most globally spread between regions in terms of buyer-supplier relations. Moreover, the apparel and textile sector is the 4th biggest sector in the world, hence its impact on the environment, society and economics is huge (Vilaça, 2022).

The chapter contributes to GVC literature and literature related to COVID-19 effects on industries, particularly to empirical studies on this topic. It is in line with Boudreau & Naeem (2021), in which the authors analysed the economic effects of COVID-19 on ready-made garment factories in Bangladesh. It also responds to calls for "more in-depth case-based studies examining the dynamic nature of GVCS" (Mostafiz et al., 2022).

The chapter is organized as follows. First, the theoretical approach concerning the reconfiguration of GVCS is introduced with a particular focus on the changes in buyer-supplier relations and their responsive actions to the COVID-19 pandemic. At the end of this section, the conceptual framework for the rationale for GVCS configuration-related decisions and actions in the pandemic business environment is developed. This framework works as a conceptual background for empirical research. Second, the methods are provided. Third, the findings and practical implications are discussed. Finally, conclusions and suggestions for future research directions are presented.

2. Theoretical approach

The responsiveness of Global value chains to the COVID-19 pandemic

Global value chains are defined as the connected functions and operations through which services and goods are manufactured, distributed and consumed in a global scale (Kano et al., 2020), GVCs are also known as globally dispersed networks (Buckley & Ghauri, 2004) that are described by a wide range of cross-border, value-creating activities that are needed to create a product or service from its design, sourcing of raw materials, intermediate cost calculations, production, marketing, distribution and support to the end user (UNCTAD, 2020). Since GVC activities are interlinked, the COVID-19 pandemic has had a profound effect, thus the responsiveness of GVCs to the pandemic became an essential aspect.

Research (Modgil et al., 2022) has shown that resilient supply chains are necessary to identify the various risks and applications of products, to analyse the market and the different scenarios that can cause problems for the manufacturing company and its supply chains, as well as to properly reconfigure the chain and activate it in order to achieve the best result. Thus, there are already some recent studies on GVC resilience that emphasise the necessity for the flexible use of suppliers from the domestic market and developed national and regional value chains, integrating GVCs to achieve cycle goals (Tang, 2006; Song et al., 2021), that stress the importance of having a stock buffer and backup sources (Vanpoucke & Ellis, 2019), that address the need to share the risk with external partners within the supply chain and its influences on resilient and robustness capabilities to deal with disruptions (Manuj & Mentzer, 2008; El Baz & Ruel, 2020) and focus on the necessity to sustain the network of external relationships in the supply chain and create relational continuity (Colm & Ordanini, 2021). The maintenance of vertical relationships, which influence a company's decisions and scope of actions, becomes challenging not only during a disruption but also during the recovery phase (Colm & Ordanini, 2021).

The reconfiguration of GVCs towards regionalization

The COVID-19 pandemic has strengthened the trajectory toward GVC reconfiguration. Earlier pressure on exploiting efficiencies of global supply chains has been replaced by pressure on the reduction of risks through localizing the supplier base (Shih, 2020).

According to Elia et al. (2021), the COVID-19 pandemic is expected to cause changes in GVC governance, the need to rethink the GVC paradigm, and reconfiguration of GVCs according to four alternative trajectories: reshoring, regionalization, replication, and diversification. As a result of reshoring, value chains will become shorter and geographi-

cally less fragmented (UNCTAD, 2020). The reshoring trajectory particularly affects GVCs in high technology intensive industries and is driven by challenges specific to a particular industry and the current configuration of its GVCs. Thus reshoring will lead to divestment activity as a result of which the scale of efficiency-seeking foreign direct investments will decrease (UNCTAD, 2020). In the case of regionalization, value-adding activities may become more fragmented but their nature may also change. Regional market-seeking investment in clusters and broader industrial networks may replace global efficiency-seeking investment. Replication leads to a shorter value chain and a separation of production stages. According to UNCTAD (2020), "this trajectory implies a shift from investment in large-scale industrial activity to distributed manufacturing, which relies on lean physical infrastructure and high-quality digital infrastructure". Diversification leads to a wider spread and diversification of economic activities. In this case "reliance on supply chain digitalization will cause those GVCs to be more loosely governed, platform-based and asset-light, and value capture in host countries will become more difficult" (UNCTAD, 2020). The reconfiguration of GVCs with respect to the four alternative trajectories is described in the latest World Investment Report (UNCTAD, 2020), with more emphasis on two of them, as can be expected: reshoring and regionalization, which imply the shortening of GVCs and relocation of manufacturing activities.

In previous research, the reconfiguration of GVCs towards regionalization has been the most discussed. The idea of regionalization is supported by Pla-Barber et al. (2021) in their latest conceptual research. In their view, the pandemic would lead to a reconfiguration of GVCs by initiating "a trend toward a more regional footprint in industries in which resilience and reliability are critical" (p. 204) for recovery after the pandemic. Pla-Barber et al. (2021) emphasized the need for all GVC actors to accept the cost associated with the creation of new infrastructure and technologies and with finding new reliable suppliers. Another reason to regionalize GVCs is based on the research of Kano et al (2020). According to the authors, economically more developed countries, whose enterprises specialize in advanced manufacturing technologies, are much more actively engaged in upstream segments of GVCs. Such countries and firms become key suppliers to other countries in the region, in this way supporting regional integration of production. The motive of geographic reconfiguration of GVCs towards regionalization was supported by Elia et al., (2021) by emphasizing the role of technologies that allow firms to improve coordination, control and to substitute labour with technology. As a result, "making the role of emerging countries less relevant, including in advanced macro regions such as the EU and North America".

The shift to regionalization is unlikely to occur immediately. According to UNCTAD (2020) a stronger tendency toward regionalization and reconfiguration of GVCs will appear in some industries, and value chains will regionalize with different intensities and to various extents. Accordingly, different sectors located in different geographical regions

(Soliku et al. 2021) and different sized companies' resilience factors can be treated in completely different ways. For example, due to the economic downturn caused by the COVID-19 pandemic, sales of companies dealing in apparel more or less dropped all over the world, but larger and more innovative apparel companies suffered fewer losses. Most companies in the apparel industry experienced a shortage of raw materials, some of them were forced to lay off workers, close, stop investing, and experienced a decrease in demand, but survived, despite the various threats to health and other problems experienced by their employees (Boudreau & Naeem, 2021). Thus, to avoid losses and stay in the market, companies have to be resilient to the challenges of the COVID-19 pandemic that are still being faced. The anticipated actions of companies are often analysed prescriptively; the empirical proof is mostly occasional.

Responsive reconfiguration of GVCs: short- and long-term actions

According to Boudreau & Naeem (2021) the responses of companies in the apparel industry to the COVID-19 pandemic varied substantially. These responses may have included reactive and proactive actions which may be strategically treated as short- or long-term actions. The literature discusses a wide range of motivations, different rationales, and expected GVC-related decisions and actions. For instance, the World Economic Forum (2020a, b) highlighted the need for companies to adapt their supply chains to future trade challenges by setting short-term and long-term priorities/actions. In the short term the focus has to be on transport and production, as well as worker movement, while in the long term, strategies and capabilities, that are related to digital readiness and data sharing should be developed and implemented for supply chains.

During the pandemic, manufacturers could no longer ensure the rapid transportation of goods and efficient manufacturing operations. Manufacturing companies have had to reconfigure their supply chains around the globe, as the pandemic has affected both supply and demand factors. Thus, according to Handfield et al. (2020) the need to reconfigure and orchestrate responsive and resilient supply chains that are sustainable and cost-effective is the most important long-term action. These findings are in line with the research of Pla-Barber et al. (2021), in which the authors state that in the nearest future GVCs will not avoid new challenges and shocks, and therefore propose to establish long-term relationships with local suppliers who are also developing resilient business strategies of their own. Seeking to effectively mitigate the consequences of the COVID-19 pandemic, companies have to assess risks to GVCs, to implement risk monitoring and assessment systems in order to build resilient and responsive GVCs (Pla-Barber et al., 2021). Other researchers (Dolgui et al., 2020) proposed the reconfiguration of GVCs by merging components taken from digital, lean-agile, resilient and sustainable supply chains to adjust to sudden changes.

The empirical data-driven structurization of these motivations and respective actions would offer a significant input to the current knowledge base, providing some more stable background for conceptualization in the field of post-pandemic GVC regionalization and further modelling of GVC development.

Figure 1. The rationale for GVC configuration related decisions and actions in the pandemic business environment: a summary of literature review and background conceptual framework for empirical research
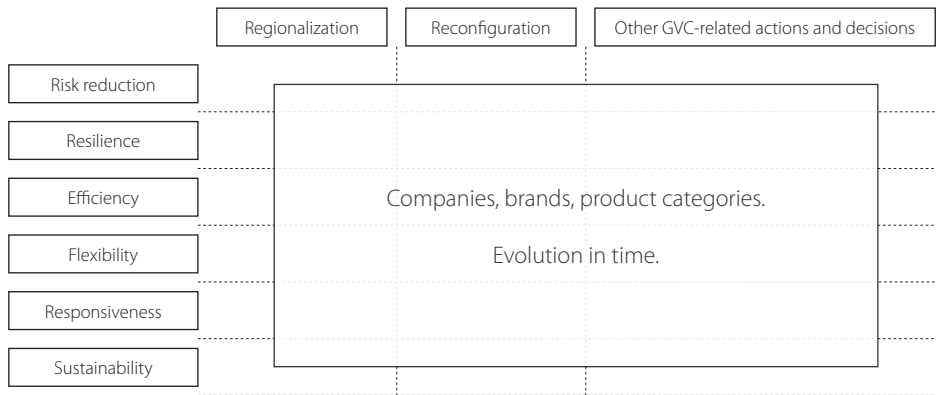
The empirical research aims to provide evidence observed in the global apparel industry on interactions between motivation, reasoning, and an overall rationale for GVC configuration-related decisions and respective actual changes, actions, or even long-term business strategies. The outcomes of the empirical research will serve as a background from which to draw some conclusions on the endurance and orientation of GVC regionalization and following reconfigurations in the global apparel industry.

3. Methods

The empirical research was carried out to explore the motivations, reasons, and overall rationale behind the changes in the apparel industry's GVCs during the COVID-19 pandemic. The literature review provides some initial ideas which need to be proved and structured on the empirical data basis. This means that the research is done based on the deductive perspective. However, as common in qualitative research design, inductive outcomes are also expected to extend and enrich current knowledge based on previously conducted research. The global business news media publications reporting on events that are covered by the research topic are taken as the main data source.

The question for empirical research is: what were the GVC-related decisions or actions and their respective motivations that occurred during the COVID-19 pandemic

in global apparel industry value chains? To answer this question the following steps were taken:

1. A Google search for news covering the topic of the apparel industry's value chains was made. The exact search query was: [(garment OR apparel OR textile OR clothing OR clothes) AND ("supply chain" OR "value chain") site:bloomberg.com]. The Google search, instead of a direct search in news platforms was carried out to maintain the same approach across different news platforms. Other terms close to apparel were included in the search query to cover the possible use of these words as synonyms for apparel. The limitation to a single data source was due to limited institutional full-access subscriptions to the full content of the news media services.

2. Search results were confined to the May 31, 2018 – May 31, 2022 publication date range to cover the pre-pandemic and pandemic timespan. The search itself was done on June 19, 2022.

3. A total number of 252 publications was identified. These publications were collected with MaxQDA Web Collector and imported to the MaxQDA project for further qualitative text analysis.

4. The collected secondary data were first coded by the authors separately. The data coding was done in a classical way, i.e., by reading the text and labelling relevant pieces with the abstract codes. Text coding allows the data to be concentrated and thus extracts the essential information suitable to reason the main conclusions of the research. Initial codes then were merged into a single code system, which served as a background for the final conclusions. All coding-related agreements were achieved by discussions between the authors.

Following the conceptual framework that emerged as a literature review summary (Figure 1), the relevant pieces of data were first coded with the sub-codes from "GVC-related changes, decisions, actions" and respective "reasons, rationale, motivations" code categories to generate a conceptual summary reflecting a matrix of empirical evidence built by the intersections of subcategories. Multiple or co-occurrence coding approaches were applied (Saldana, 2015).

The same segment of the text was then coded with the additional attribute codes providing more data on certain evidence, including the publication date, product category, location, brand, and/or company names. The whole code system that emerged as the result of qualitative data analysis is presented in Figure 2.

The intersections of sub-codes from "GVC-related changes, decisions, actions" and respective "reasons, rationale, motivations" code categories provide empirical evidence on the ongoing GVC regionalization in the selected global apparel industry. The other

codes that appear in these intersections helped to explain when, where and under which conditions GVC regionalization-related actions took place.

Figure 2. Code system. Summary of qualitative business news analysis

1 Locations	4.12 2021-12-21
1.1 Europe	4.13 2022-02-01
1.2 Online	4.14 2022-02-11
1.3 Indonesia	4.15 2020-02-26
1.4 UK	4.16 2022-04-19
1.5 USA	4.17 2022-05-06
1.6 Pakistan, Bangladesh, Asia, not China	4.18 2022-05-12
1.7 Leicester, U.K.	4.19 2022-05-18
2 Product categories	4.20 2022-05-28
2.1 Textile and clothing in general	5 Supply Chain Issues Related Reasons - SCIRR
2.2 Fast-fashion	5.1 SCIRR: Delayed deliveries
2.3 Luxury fashion	5.2 SCIRR: Increased freight / transportation costs
3 Companies / Brands	5.3 SCIRR: Decreased inventory due to supply chain issues
3.1 Zalando	5.4 SCIRR: Increased inventory due to late delivery
3.2 Inditex / Zara	5.5 SCIRR: Demand fluctuations due to lockdowns
3.3 H & M	6 Long-Term Business Strategy related Motivations - LTBSM
3.4 Nike	6.1 LTBSM: To expose soc. env. responsibility
3.5 American Giant	6.2 LTBSM: To ensure deliveries
3.6 RealReal and [second hand platforms]	6.3 LTBSM: To improve quality control
3.7 Joules Group Plc	6.4 LTBSM: To increase speed to market
3.8 adidas	6.5 LTBSM: To gain flexibility and quality
3.9 Victoria Secret	6.6 LTBSM: To have sustainability benefits of locally made good
3.10 Under Armour	6.7 LTBSM: To maintain resilience
3.11 Walmart,Macy's, Costco, Target, Gap	6.8 LTBSM: To improve Image, and reputation
3.12 Shein [China, on-line retailer]	7 Re-Active Actions - RAA
3.13 Boohoo	7.1 RAA: Decision / action is not clear
3.14 Kering	7.2 RAA: Secure goods and stock up on inventories
3.15 Gucci	7.3 RAA: Ordering earlier than usual
3.16 Saint Laurent	7.4 RAA: Temporal orders' cancelation
4 Dates	7.5 RAA: Shift to second-hand retailing
4.1 2019-08-20	8 Pro-Active Decisions - PAD
4.2 2020-04-20	8.1 PAD: Proximity sourcing
4.3 2020-06-25	8.2 PAD: Diversification of suppliers
4.4 2020-09-25	8.3 PAD: More localised supply chain
4.5 2021-03-16	8.4 PAD: Supply chain concentration
4.6 2021-06-15	8.5 PAD: Increasing visibility
4.7 2021-08-27	8.6 PAD: Imposing higher standards
4.8 2021-09-17	8.7 PAD: Virtual integration
4.9 2021-09-30	8.8 PAD: Pushing the suppliers to adapt
4.10 2021-10-23	8.9 PAD: Boosting the use of more sustainable materials
4.11 2021-11-09	8.10 PAD: Education and training for buyers

Research limitation.

1. Only one data source (i.e. bloomberg.com) is explored. Other sources of business news media will be added in the coming phases of the research to cover a full range of facts and perspectives.
2. The media news might be biased by the interests and attitudes of publishers, authors, and other factors. Later stages of the research should include other methods to consider and prove if necessary, conclusions based on media news as the main data source.
3. Though business news media is appropriate to cover a wide range of events, it does not provide in-depth analytical insights and expertise, which might also limit the relevance of the research conclusions.

4. Findings and Implications

Only a small proportion (around 15%) of collected business news published by Bloomberg was considered relevant, i.e., providing empirical data appropriate to answer research questions. There were near to 50 code intersections from more than 20 documents, that to some extent explain the phenomenon of GVC regionalization.

After several iterations of content analysis of coded segments, it was concluded that both motivations and respective GVC-related actions split into two main categories. Two motivation and two action categories built a typology for the categorization of motivations and actions, which is discussed at the end of the paper as the main implication of this research. The reasoning and motivation for GVC-related decisions were clustered around Supply Chain Issues Related Reasons (SCIRR) and Long-Term Business Strategy Related Motivations (LTBSM) parent code categories. Actions, changes and applied decisions were summarised respectively as Re-Active Actions (RAA) and Pro-Active Decisions (PAD) code categories. Figure 2 lists the child codes of these main analytical categories along with all other codings that were made during the data analysis. The given abbreviations — SCIRR, LTBSM, RAA, and PAD — are references used later in figures 3, 4, and 5, which represent visual maps of code interactions.

Besides the main research question-related coding, coded text segments were also labelled by date, location, product category and brand/company name codes, which provide broader insights into the analysed data coverage in terms of time, geographic, and industry actors' perspectives.

Figure 3 indicates the vertically listed SCIRR category codes located in the centre from the top to the bottom of the code interactions map (marked yellow) surrounded by the RAA and PAD category codes (marked green). The visualisation of code interactions

(or co-occurrences) shows that SCIRR-based motivations called mostly for RAA-type responses. The cluster of short-term reasons and motivations occurred because of the pandemic. The GVC-related actions here are motivated by increased costs, delayed deliveries, and inventory-related issues (Figure 3). The actions here are also reactive, not strategic, and not long-term vision-focused. The only intersection of SCIRR motivation with proactive actions was proximity sourcing as a response to delayed delivery caused by GVC issues related to action motivation.

The code interactions map (Figure 3) also reveals that all SCIRR motivations have interactions with a code, indicating that the actual action or decision is not yet clear. Temporal order cancellation was found to be the most widely spread reaction to the motivation of SCIRR for GVCs relevant managerial solutions; this action is a relevant solution for all mentioned SCIRR. Delayed deliveries is a SCIRR that was solved by the widest range of different means of GVC management. Most of the responses were classified as RAAs; the only GVC reconfiguration-relevant response, categorized as PAD, was the decision to source from nearby suppliers (coded as proximity sourcing). All other observed solutions for delayed deliveries are reactive actions, short-term solutions, which would not result in enduring GVC reconfiguration. The line thickness indicates the relative frequency of the particular code interaction; a thicker line means a higher frequency of code interactions.

Figure 3. The map of co-occurrences among Supply Chain Issues Related Reasons, Re-Active Actions and Pro-Active Decisions code categories
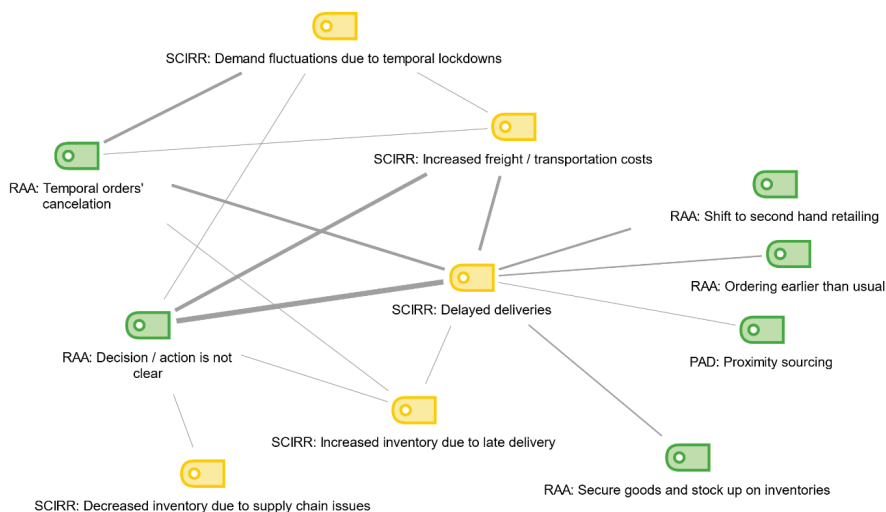

Social and environmental responsibility, corporate image and other LTBSMs (Figure 4) are not caused by the pandemic. They call for a range of actions that are to some extent related to the reconfiguration of the GVCs. An attempt to have a more localized supply

chain is a decision taken to respond to a wide range of LTBSMS. The need to ensure social and environmental responsibility is associated with the largest number of different PADS. Some of the LTBSMS were found to be solved with only one PAD (Figure 4). Other LTBSMS were found to be addressed by only a single particular PAD. However, it should be noted that the frequency of codes and co-occurrences of its interactions should not be taken into consideration due to the limited amount of qualitative data collected and considered during this investigation and the overall tradition of generalization of qualitative research conclusions.

Although the data are qualitative, which does not allow one to conclude quantitatively, it still suggests that SCIRRS and respective reactions are more widespread compared to the LTBSMS and interconnected PADS. This proposition is worth addressing and verifying in future quantitative research based on the deductive design developed by following the results of the current study. In the present work, the spread difference between SCIRRS and LTBSMS in the global apparel industry is highlighted by interconnections of SCIRR and LTBSM category codes with the date attribute (Figure 5). The code co-occurrences network presented in Figure 5 also highlights interconnections, captured by code co-occurrences, with the company/brand names which sheds light on the industry actors' coverage of the collected data.

Figure 4. The map of co-occurrences among Long-Term Business Strategy related Motivations, Re-Active Actions and Pro-Active Decisions code categories
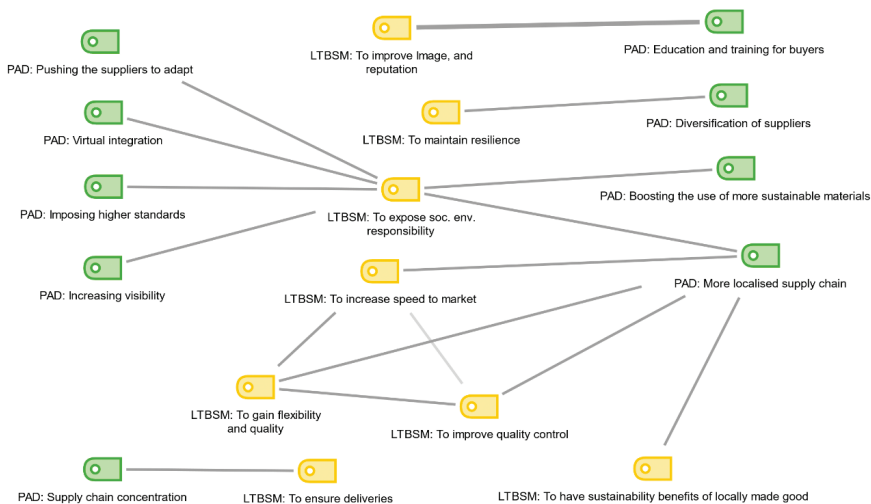
The SCIRR code category representing the Delayed deliveries issue is found to be central and the most widespread reasoning/motivation for some GVC reconfiguration actions and/or decisions. The collected business media news data indicate that companies

in the global apparel industry began to meet the Delayed deliveries at the beginning of 2021 and this continued throughout the whole pandemic. Another SCIRR noticed during COVID-19 is Increased freight/transportation costs, which is interconnected with other SCIRRS. The most frequent co-occurrences (indicated by connection line thickness) are between SCIRRS Delayed deliveries and Increased freight/transportation costs, but many other code interactions within the same SCIRR category also are observed.

It is also evident from the code interactions map presented in Figure 5, that LTBSMS were relevant in the pre-pandemic and early-pandemic times. Then SCIRRS started to shape GVC-related managerial actions and decisions. Finally, pandemic relief achieved in the first half of 2022 brought GVCs management LTBSMS back to the fore; assurance of deliveries, sustainability benefits of locally made goods, flexibility and speed to the market are LTBSMS that appear at the end of the pandemic. Social and environmental responsibility, image, reputation and resilience were the main LTBSM category motivations in the pre- and early-pandemic times. SCIRRS are still present up to the end of the research period (Figure 5).

The present research does not allow us to conclude reliably on the company clusters facing either SCIRR or LTBSM category reasoning and motivation; it is just noted that all companies, those working in fast fashion as well as luxury apparel sectors face the same challenges.

The above-reviewed prevailing SCIRR interactions with RAAS (Figure 3) and LTBSM interactions with PADS (Figure 4) lay the foundations for the central conclusion of this research: the reshoring and respective regionalization of GVCs in the global apparel industry are not triggered by COVID-19 pandemic-related reasons; the motivation for proactive decisions and changes in GVC configuration is found in a range of LTBSMS. The actions here categorised as RAAS would not result in reshoring or GVC reconfiguration; these actions are short-term reactions to the changes in the business context and issues that were brought with these contextual changes. Cancellation of orders, corrections of ordering time, secure goods and inventory stock-ups — are actions that would not reconfigure GVCs for a long period. Most of the decisions here categorised as PADS, in contrast, would result in GVC reconfiguration over a long time: e.g., supplier adaptation, virtual integration, diversification of suppliers, and especially — more localised supply chain organization.

The findings of this research are partly in line with the conclusions provided by Barbieri, et al. (2020), who noticed that "reshoring emerges either as an adjustment to modified contextual conditions (or unexpected issues in the firm's global footprint) or as a move for achieving strategic re-alignment". Our research supports only the latter conclusion. "The adjustment to modified contextual conditions", which were created by the COVID-19 pandemic, did not lead to noticeable regionalization in the global apparel industry. However, this does not mean that the regionalization trend is not relevant here. Regionalization is gaining momentum, but it is motivated by "a move for achieving stra-

tegic re-alignment". The COVID-19 pandemic was a trigger for short-term decisions and respective actions, while long-term relocation strategies were found to be motivated by attempts to reduce risk, ensure quality, and better respond to the needs of local customers' needs, which are foreseen as long-term strategic goals (Barbieri et al., 2020).

Figure 5. Data coverage: The map of co-occurrences among Supply Chain Issues Related Reasons, Long-Term Business Strategy related Motivations categories codes, publication Date and Company Name data attributes
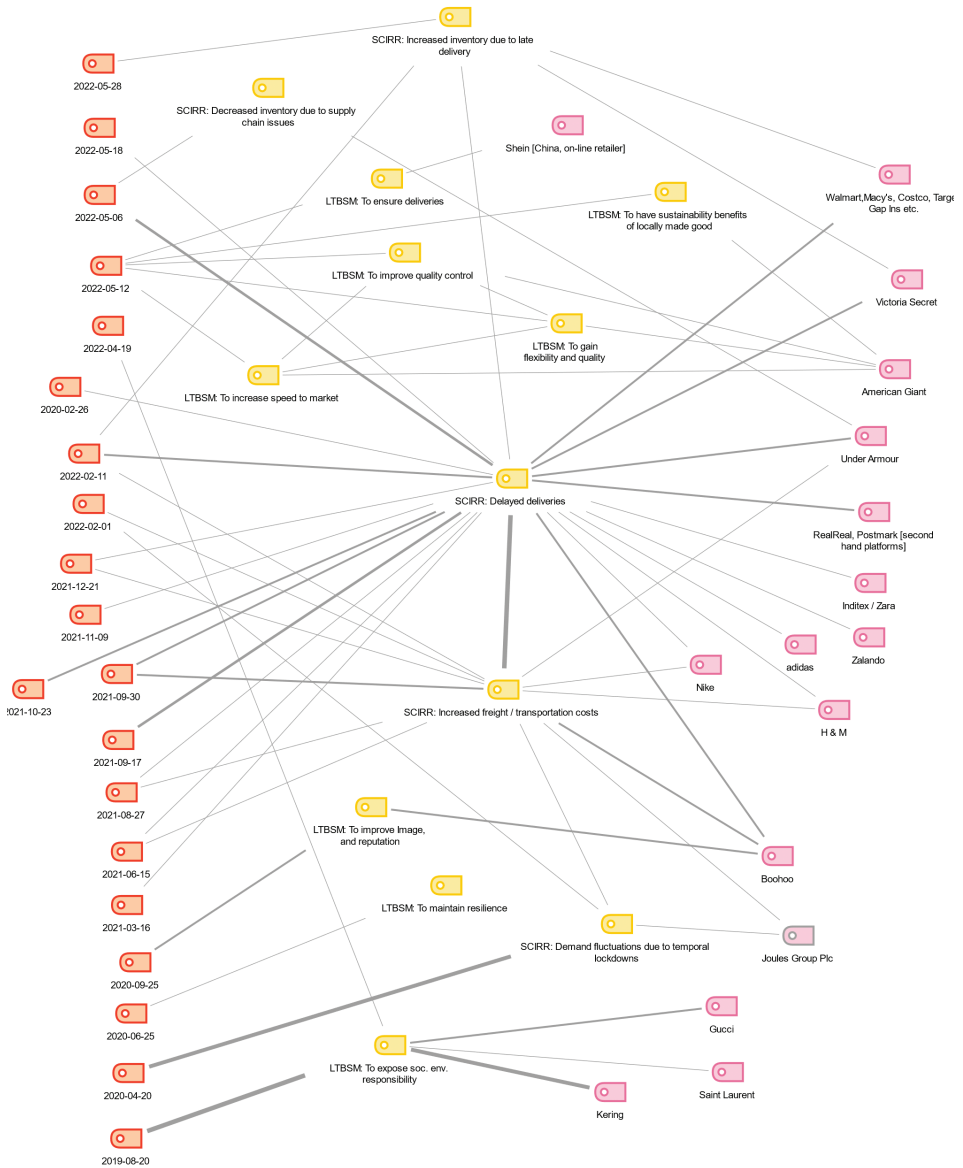
This study adds value to the scientific discussion on the reshoring of gvcs by providing granular lists of motivations and the respective actual decisions, based on evidence from the global apparel industry. The highlighted prevalence of interactions between scirrs and raas, as well as ltbsms and pads, express to some extent the underlying backgrounds of apparel industry gvc regionalization, which allow foresight of coming trends and reshoring trajectories.

The two categories of reasoning and motivation for the reconfiguration of gvcs and two categories of respective actions and decisions are arranged in a 2 by 2 matrix, which provides the final conceptual approach to gvc reconfiguration based on the interactions between different motivations and actions (Figure 6). This approach explains that long-lasting and enduring gvc reconfiguration requires a stable context with anticipated developments where companies would be able to plan and implement their long-term business strategies. An environment disturbed by a pandemic or other (e.g. geopolitical) issues and tensions is not relevant to gvc reconfiguration focussed decisions. Although some gvc management actions are implemented in a disturbed global business environment, these actions mainly are done to solve short-term issues to ensure and maintain activities. Regionalization which is a strategic and long-term decision would be difficult to implement in destabilized global environments.

Figure 6. Conceptual approach to GVC reconfiguration based on interactions between different motivations and actions

		GVCs focused actions	
		Re-active actions	Pro-active decisions
Reasoning / motivation	Reasoning associated with supply issues caused by pandemic and geopolitical tensions	Relevant in a disturbed environment, does not result in GVCs reconfiguration, short-term issues are solved	Not relevant due to the need for quick response
	Motivation based on long-term business development strategy	Not relevant due to the nature of long-term strategy	Requires for stable context with anticipated developments and results in GVCs reconfiguration

The interactions between disturbed environment-caused reasoning and long-term focussed proactive decisions were not found to be relevant as was the opposite interaction between strategic goal-based motivations and short-term reactive responses. The former interaction is considered as not relevant due to the need for a quick response to solve current-day issues, while the latter is found to be not relevant due to the nature of long-term strategies, which should not be implemented by short-term reactive responses and actions.

Practical implications are related to the use of our findings to inform an appropriate governmental — policy response and to facilitate planning for recovery from the

COVID-19 pandemic for companies that orchestrate their global value chain in the apparel industry.

The generalising conclusions discussed above are relevant and worth addressing in further research. The main implication is that ongoing regionalization should not end or stop with the end of the pandemic. The underlying reasons will remain relevant in the post-pandemic global business context. It may be expected that the post pandemic period will bring long-term business development-based motivations to the fore in GVC management strategy. On the other hand, current geopolitical tension, war in Ukraine and its associated uncertainty, suggests that value chain management based on a long-term strategy may be relegated to an undefined future. Government representatives and other local stakeholders should be prepared for increased demand for local supplies, for local support and business services to ensure fluent reshoring of global companies, which were more active overseas than locally. But these expectations should be considered in terms of global and local business conditions. A stable context characterised by anticipated future developments would increase the demand faced by local suppliers. However, a disturbed environment, characterized by short-term decisions, is not suitable for sustained GVC reconfiguration.

5. Conclusions and future research directions

Although recent research (Elia et al 2021; Pla-Barber et al, 2021; Mostafiz et al. 2022) has emphasized the reconfiguration of GVCs towards regionalization during the COVID-19 pandemic, our empirical research did not reveal any noticeable regionalization in the global apparel industry. This does not mean that the regionalization trend is not relevant. The direction towards regionalization is there, but in coordination with other strategic goals. Thus, we make a call for research in terms of the need for more empirical research on the topic.

Looking at the empirical results, it is possible to state that the reactive motivation for GVC-related decisions is considerably wide spread compared to proactive reasoning aiming at strategic, long-lasting shifts to regional supply chains. Reactive reasoning is not always associated with clear actions. The business media only reports that companies meet supply chain-related issues, including increased transportation costs and delayed deliveries, but any respective decisions and/or actions remain unclear and are not described. Proactive motivation and reasoning, on the other hand, are related to more defined and exact actions and strategic decisions.

It is long term business strategy-related motivations that were relevant in pre-pandemic and early-pandemic times after which supply chain issue related reasoning began to shape GVC oriented managerial actions and decisions. Finally, the pandemic relief which arrived in the first half of 2022 restored GVC management strategic motivations.

It can be concluded that the pandemic arrangements of the apparel industry GVCs are dominated by short-term reactive and temporal responses to supply issues. These decisions are not strategically oriented. Proactive GVC reconfiguration strategies are emerging but are still rare. The balance between a reactive response to supply challenges and proactive long-term regionalization remains on the former side.

Despite providing some interesting insights on the topic, there are also some limitations. These include a limited generalization of the findings and application of our theoretical model. Our study was primarily based on global business news media publications reporting on the events that are covered by the research. Although we achieved useful results, future studies should test the conceptual model by using other empirical qualitative methods, such as interviews with managers.

Another limitation is related to the fact that our findings cannot be applied to other industries. Thus, future research should cover the GVCs in other industries (including low and high value adding), and their companies' long and short-term actions as a responsive result of the COVID-19 pandemic.

References

Barbieri, P., Boffelli, A., Elia, S., Fratocchi, L., Kalchschmidt, M., & Samson, D. (2020). What can we learn about reshoring after Covid-19?. *Operations Management Research*, *13*(3–4), 131–136. https://doi.org/10.1007/s12063-020-00160-1

Boudreau, L., & Naeem, F. (2021). The Economic Effects of COVID-19 on Ready-made Garment Factories in Bangladesh. *Private Enterprise Development in Low-Income Countries*. RG 7849, July 2021.

Buckley, P.J., & Ghauri, P.N. (2004). Globalization, economic geography and the strategy of multinational enterprises. *Journal of International Business Studies*, *35*(2), 81–98. https://doi.org/10.1057/palgrave.jibs.8400076

Colm., L., & Ordanini A. (2021). Facing Supply Chain Disruptions: Strategies to Ensure Relational Continuity. In R. Wilding (Ed.), *The impact of the COVID-19 on Global Supply Chain management*. Proud Pen. https://doi.org/10.51432/978-1-8381524-2-0-4

Dolgui, A., Ivanov, D., & Sokolov, B. (2020). Reconfigurable supply chain: The X-network. *International Journal of Production Research*, *58*(13), 4138–4163. https://doi.org/10.1080/00207543.2020.1774679

El Baz, J., & Ruel, S. (2020). Can supply chain risk management practices mitigate the disruption impacts on supply chains' resilience and robustness? Evidence from an empirical survey in a COVID-19 outbreak era. *International Journal of Production Economics*, *233*, 107972. https://doi.org/10.1016/j.ijpe.2020.107972

Elia, S., Fratocchi, L., Barbieri, P., Boffellid, A., & Kalchschmidt, M. (2021). Post-pandemic Reconfiguration from Global to Domestic and Regional Value Chains: The Role of Industrial Policies. (August 31, 2021). *Transnational Corporations Journal*, *28*(2). https://ssrn.com/abstract=3915150

Gandoy, R., & Díaz-Mora, C. (2020). *El futuro de las cadenas globales de valor*. Club de exportadores e inversores. Comité de reflexión sobre internacionalización. https://clubexportadores.org/wp-content/uploads/pdf/documentos/notas-comite-reflexion/nt_cadenas_globales_valor_jul20.pdf

Handfield, R.B., Graham, G., & Burns, L. (2020). Corona virus, tariffs, trade wars and supply chain evolutionary design. *International Journal of Operations & Production Management*, *40*(10), 1649––1660. https://doi.org/10.1108/IJOPM-03-2020-0171

Kano, L., Tsang, E.W.K., & Yeung, H.W. (2020). Global value chains: A review of the multi-disciplinary literature. *Journal of International Business Studies*, *51*(4), 577–622. https://doi.org/10.1057/s41267-020-00304-2

Manuj, I., & Mentzer, J.T. (2008). Global supply chain risk management. *Journal of Business Logistics*, *29*(1), 133–155. https://doi.org/10.1002/j.2158-1592.2008.tb00072.x

Modgil, S., Gupta, S., Stekelorum, R.*, &* Laguir, I. (2022), AI technologies and their impact on supply chain resilience during COVID-19. *International Journal of Physical Distribution & Logistics Management*, *52*(2), 130–149. https://doi.org/10.1108/IJPDLM-12-2020-0434

Mostafiz, K.I., Musteen, M., Saiyed, A., & Ahsan, M. (2022). COVID-19 and the global value chain: Immediate dynamics and long-term restructuring in the garment industry. *Journal of Business Research*, *139*, 1588–1603. https://doi.org/10.1016/j.jbusres.2021.10.078

Nikolopoulos, K., Punia, S., Schäfers, A., Tsinopoulos, C., & Vasilakis, C. (2020). Forecasting and planning during a pandemic: COVID-19 growth rates, supply chain disruptions, and governmental decisions. *European Journal of Operational Research*, *290*(1), 99–115. https://doi.org/10.1016/j.ejor.2020.08.001

OECD (2020, June 3). *COVID-19 and Global Value Chains: Policy Options to Build More Resilient Production Networks*.

Pla-Barber, J., Villar, C., & Narula, R. (2021). Governance of global value chains after the Covid-19 pandemic: a new wave of regionalization?. *Business Research Quarterly*, *24*(3), 204–213. https://doi.org/10.1177/23409444211020761

Saldana, J. (2015).*The Coding Manual for Qualitative Researchers*. SAGE

Shih, W. (2020, March 19). Is it time to rethink globalized supply chains?. *MIT Sloan Management Review*, Summer 2020. https://sloanreview. mit.edu/article/is-it-time-to-rethink-globalized-supply-chains/

Song, Y., Yu, C., Hao, L., & Chen, X. (2021). Path for China's high-tech industry to participate in the reconstruction of global value chains. *Technology in Society*, *65*, 101486. https://doi.org/10.1016/j.techsoc.2020.101486

Soliku, O., Kyiire, B., Mahama, A., & Kubio, C. (2021). Tourism amid COVID-19 pandemic: impacts and implications for building resilience in the eco-tourism sector in Ghana's Savannah region. *Heliyon*, *7*(9), e07892. https://doi.org/10.1016/j.heliyon.2021.e07892

Tang, C.S. (2006). Robust strategies for mitigating supply chain disruptions. *International Journal of Logistics Research and Applications*, *9*(1), 33–45. https://doi.org/10.1080/13675560500405584

Vanpoucke, E., & Ellis, S. (2019). Building supply-side resilience: A behavioural view. *International Journal of Operations and Production Management*, *40*(1), 11–33. https://doi.org/10.1108/IJOPM-09-2017-0562

Vilaça, J. (2022). *Fashion Industry Statistics: the 4ᵗʰ Biggest Sector is Way More than Just About Clothing*. https://fashinnovation.nyc/fashion-industry-statistics/

World Economic Forum—WEF. (2020a). *How China can rebuild global supply chain resilience after COVID-19*. https://www.weforum.org/agenda/2020/03/coronaviru s-and-global-supply-chains/ (2020.04.5).

World Economic Forum—WEF. (2020b). *What past disruptions can teach us about reviving supply chains after COVID-19*. https://www.weforum.org/agenda/2020/03/covid-19-coronavirus-lessons-past-supply-chain-disruptions/ (2020.03.30).

UNCTAD (2020). *World Investment Report 2020. International Production Beyond the Pandemic*. United Nations Publications. https://unctad.org/en/PublicationsLibrary/wir2020_en.pdf

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