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The Dark Side of Outsourcing: The Case of Logistics

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Additional information is available at the end of the chapter

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Abstract

Contemporary capitalism is characterized by the central role of global value chains (GVCs) that heavily rely on logistics and transport services. Thus, logistics services—and among them warehousing and handling of commodities and consumption goods—affect the competitiveness of companies and countries. In the last decades, firms have reacted to this new environment by outsourcing logistics services to specialized operators, from large multinational logistics companies to small worker cooperatives. In some cases, logistics cost efficiency has been reached by investments in new technologies and organizational arrangements, thus increasing workers' qualification. In other cases, labor cost-savings within GVCs have accompanied by heavy social costs, in terms of workers' wage and nonwage conditions often bordering full-fledged exploitation practices. In this chapter, we focus on the functioning of a "shadow management system" that has characterized part of logistics firms in Northeastern Italy.

Keywords: global value chains, warehousing, social dumping, workers' exploitation, organized crime

1. Introduction

In the last decades, the evolution of capitalism and the emergence of a world economy have fostered competitive pressures on companies. This has been partly driven by customers' search for price-savings and improved quality of goods and services. In turn, industrial organization and international trade have changed dramatically to face new challenges deriving by the globalization of production and trade. In particular, multinational companies have deeply reshaped their core competencies to focus on the most value-added segments of the value chain and reduce direct control on secondary functions, such as the generic services requiring low skills that can be easily and cheaply bought on competitive markets.

In this framework, the role of logistics has become extremely relevant for two main reasons: (a) its concept has evolved to embrace global production and distribution networks that require an integrated management and (b) its role has changed according to the evolution of global value chains (GVCs). Logistics represents now one of the main functions that transnational and big firms outsource to other companies [1, 2].

The outsourcing of logistics services has largely contributed to the economic and business success of GVCs, by reducing prices and improving the quality of intermediate and final consumption of goods and services. There is a common agreement on the fact that enterprises look more and more to outsourcing in order to meet the value creation challenges for their businesses [3]. Organizations achieve many different benefits through successful outsourcing, such as the possibility to save costs related to some functions, the improvement of quality for the outsourced services, a better focus on core activities, and the access to greater knowledge and specialization [4]. However, this success has often been tarnished by associated negative social and environmental externalities.

Growing evidence shows that outsourcing involves not only benefits but also risks in terms of loss of competences and hidden costs. In particular, it has been said that changing market conditions and technological development can lead to a mismatch between short-term cost-savings and long-term perspectives, which can make outsourcing no longer the optimal choice for organizations [3]. Opportunistic behaviors in outsourcing relationships, for example, may put at risk the strategic objectives behind outsourcing [1]. Several potential risks associated to outsourcing have been acknowledged by the previous literature, such as the loss of skills and control, the loss of flexibility, and the reputation-related issues in case of bad relations and poor performance [4].

Even though some possible drawbacks of outsourcing have been analyzed in the literature, investigations about its (negative) social and environmental impacts are largely underdeveloped. In the last few decades, environmental, social, and governance (ESG) criteria, aiming at assessing nonfinancial impacts of economic activities and investments, have gathered momentum as driver of investment decisions within the global financial and business community. That is why, in this chapter, we want to shed new light on this important aspect. To do so, we focus on a (rather representative) case in which social sustainability criteria are systematically violated in the usual functioning of such a crucial function of GVCs that is logistics.

2. Global value chain and logistics

As an example of GVC, consider Nike. Nike is the world's largest supplier and manufacturer of athletic shoes and sport equipment. In 2017, Nike employs about 75,000 people worldwide and generates more than 34 billion of US dollars as global revenue. A comparable amount of people is employed in Asia in the production of clothing and shoes for Nike, although they are not employees of the company. Most of these people are employed in companies that have contractual agreements with Nike, usually run by the third Asian parties. The concept of GVC has emerged to take into account that activities that constitute a value chain are not contained anymore into a single firm or group; instead, they are carried out in interfirm networks on a global scale [5].

The management and coordination of GVC is extremely difficult for two main reasons: (a) the complexities associated with extended supply chains, namely, the interaction with multiple entities that are located in geographically distant areas and (b) the problems associated with the coordination of networks that are globally dispersed, usually across different supply chain entities [6]. These two issues lead to a series of additional problems—including the possible information distortion; the decision on optimal location of production, exchange, and distribution points; and the identification of cost structure and business opportunities according to supply chain configurations—in order to assure timely delivery and afford excellent quality to customers [7].

The rising *integration* of world markets and the *disintegration* of the production process [8] have made **logistics** the cornerstone of GVC and business strategy [6]. Logistics refers to “the wide set of activities dedicated to the transformation and circulation of goods, such as the material supply of production, the core distribution and transport function, wholesale and retail and also the provision of households with consumer goods as well as the related information flows” [9, p. 2]. Efficient logistics is the most important driver for competitive advantage in an economic setting characterized by intense global competition and diminishing profit margins. Accordingly, the benefits arising from GVCs and diffused networks cannot be exploited without paying attention to logistics capabilities and their impact on performance, efficiency, and competitiveness [10]. In other words, logistics services are crucial for the functioning of the contemporary world economy and strongly influence productivity (e.g., in terms of added value per worked hour). Indeed, although companies are particularly efficient in producing goods (i.e., production commodities and inputs), the cost and quality of business-related logistics services (i.e., handling, packaging, warehouse and distribution center management, transportation, etc.)—taking place in logistics areas—have a major impact on value creation and overall efficiency of production processes. Therefore, logistics has been described as the “next frontier of competition” [6, p. 204].

A new concept of logistics has emerged, most likely triggered by fast-changing technologies, specialized know-how, standardized delivery systems, and change in market preferences [11]. Companies are trying to consider logistics services as key part of their business models, but most of the times, they lack adequate competencies. Hence, there is a growing trend to *outsource* logistics activities to third-party logistics (3PL) providers, in order to focus on core expertise [2]. These operators become the coordinators and integrators of very different logistics tasks that may include manufacturing, handling, warehousing, packaging, national and international transportation, IT services, and customer services [12]. In a global economy resting on time-based competition mechanisms, the motivations leading companies to outsource logistics functions that have traditionally been performed in-house are the following: (a) reducing the enterprises’ own logistics costs by accessing specialized and innovative resources and competencies of 3PL; (b) improving the overall efficiency and the quality of customer services by making use of 3PL’s professional know-how; (c) specializing companies’ investments in core competencies by avoiding to employ resources on logistics establishment; and (d) increasing the enterprises’ flexibility in business and strategic action and creating economies of scale in the value chain by reducing fixed cost and improving efficiency [13]. Accordingly, logistics outsourcing allows companies to save “an average of 11.8% on logistics

costs, 24.6% on logistics assets, and 8.2% on inventory costs, while shortening their average lead time from 7.1 days to 3.9 days. For example, in Europe, 76% of large enterprises use 3PL, and 70% of them have more than one 3PL partner” [14, p. 12].

Competition in specialized logistics services is intensifying, and global logistics markets are steadily growing. In the last 25 years, the logistics sector has grown by around 10% per year [12]. Notwithstanding the Great Recession started in 2008, containers’ seaborne transportation, that is intensive of logistics services, has doubled in the last 10 years (see **Figure 1**).

Logistics companies are constantly optimizing their skills and organizational and managerial capabilities in order to ensure the highest service levels at the lowest cost. Logistics industry is continuously adapting its distribution strategies to new economic trends, under constant pressure to develop innovative solutions, new technologies, and management approaches, as well as adequate physical facilities. In order to reach sustainable and superior performance, European ventures outsource a large share of their logistics activities to 3PL companies [2]. As a consequence, logistics market appears very much fragmented, going from multinational companies taking care of customers’ logistics strategy and encompassing the entire logistics process to small organizations specialized in selected activities within that process [13].

Although the fundamental role of logistics in GVCs and outsourcing of logistics functions have improved production efficiency for single firms, reduced prices, and increased quality for final customers, such trend has also created significant negative externalities in terms of GVC social sustainability. In particular, the quality of working conditions in logistics has progressively worsened, and the risks of workers’ exploitation and illegal practices have soared.

Environmental, social, and governance (ESG) dimensions have become tangible and competitive assets of business activity in almost all economic sectors. Companies have to be

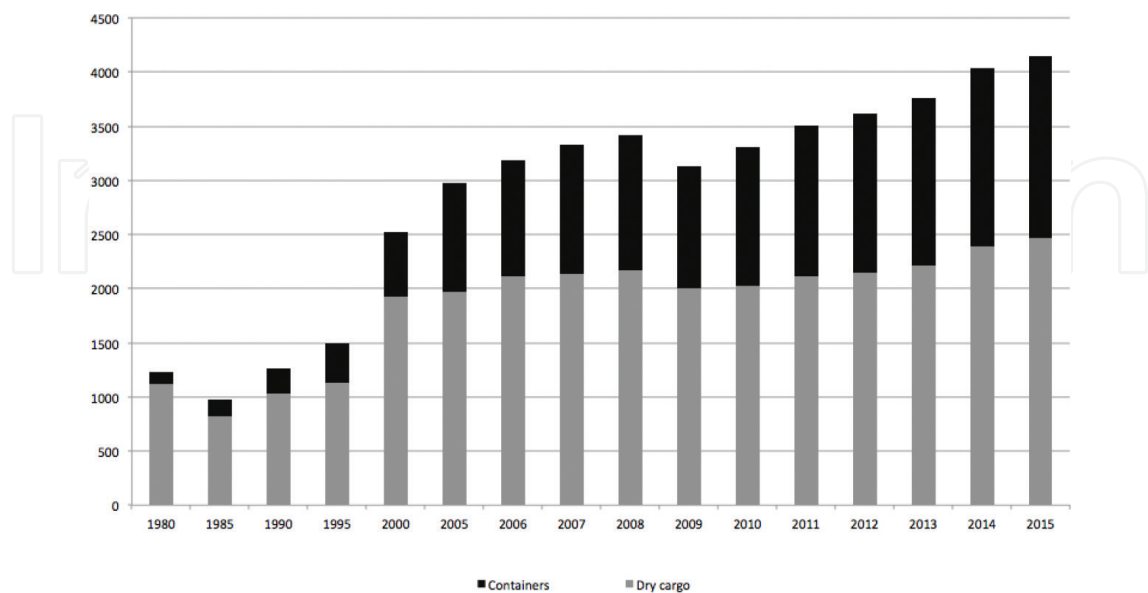


Figure 1. Worldwide seaborne non-commodity cargo (millions of tons loaded) (Source: Adaptation from [15]).

sustainable with respect to these aspects to generate real economic and social value and, in turn, to attract financial investments. In this chapter, we focus on social sustainability, and we aim to address the following research questions: *does outsourcing in logistics services, which are pivotal for economic activity, commit to social sustainability? What are the risks associated to logistics outsourcing in terms of employment conditions?*

3. Warehousing and distribution center management

The logistics industry is very wide. In this chapter, we focus on logistics tasks dealing with warehousing and distribution center management. We have decided to focus on these specific logistics activities because they are pivotal to the whole GVC process. Even though its importance is often forgotten, warehousing is present in every business process included in the chain of value creation [16, p. 7]; in reporting a Motorola survey says that “fewer organizations continue to view warehouses simply as commoditized links between endpoints of the supply chain. Warehouses are no longer necessary evils that are fundamentally cost centres... Warehouses today can drive competitive differentiation and, by doing so, increase profitable growth.”

All companies, both commercial and industrial, are supposed to deal with a warehouse. They need space for keeping goods and managing shipments and orders coming from both production and sales processes. Warehousing refers to a logistics function that primarily consists in storing goods by a company and includes packaging, receiving, handling, and assembling goods, as well as shipping goods to clients. Warehouses are one of the most important places for economic operators, as they represent the center of the most relevant physical and informational flows. Following [17], the most important activities that characterize warehouse management can be described as follows:

- (a) *Entry of goods*, referring to the unloading of goods and the check of quantity and quality for their subsequent organization in the allocated spaces.
- (b) *Storage* and transfer of goods to dedicated boxes and areas, according to whether they have to stay or be shipped again. For this activity, space optimization plays a central role by reducing picking time and good searching.
- (c) *Picking goods*, including all the activities related to processing orders, packaging, and final controls.
- (d) *Sorting of goods*, taking into account clients, packaging, product characteristics, and type of transportation.
- (e) *Postponement*, referring to all the customizations that are made on standard goods before shipment. These processes allow product customization and differentiation.
- (f) *Exit of goods*, by preparing goods for shipment and loading vehicles for transportation according to a predefined agenda.

As all other logistics activities, warehousing services are characterized as follows:

- (A) From a *technological* point of view, by high-intensity capital invested in real estate facilities (i.e., storage and intermediate handling) and labor, which is usually low skilled
- (B) From an *economic and managerial* point of view, by the considerable dynamism of the sector which is led by subcontract service relationships among the different operators of the supply chains and by product and process innovation

The search for efficiency gains and profit margins has to deal with these two aspects. In order to reach these outcomes, many logistics companies try to cut labor costs. In some cases, this comes with violations of workers' protection standards. This phenomenon, together with the massive use of low-skilled workers, precarious legal protections, and widespread employment of migrant workers, makes logistics sector a typical target for the activities of criminal entities and organizations.

4. The case: methodological issues

4.1. Research setting

Even though the logistics industry in Italy shows structural delays as compared with the main developed countries, it has reached a value of 109 billion euros in 2016 and follows an upward trend. The basic feature characterizing this sector in Italy concerns the outsourcing of activities to both multinational companies and small, specialized firms—including, in particular, worker cooperatives. Outsourcing in logistics sector is steadily growing in Italy, reaching 80 billion euros of turnover in 2016, with an increase of 1.2%, which follows a growth of 2.6% in 2015 and 1.4% in 2014. 3PL firms have reached around 45 billion of turnover, which exceeds 40% of the entire market [18].

Taking into account the improvement of warehousing services in terms of automation and digital technologies, it is worth highlighting the peculiarity of the Italian logistics sector. Looking at the relationship between automation and workforce, a trade-off between productivity and flexibility exists in all logistics activities within warehouses. On one side, warehousing logistics can make business value chain more efficient and productive thanks to the implementation of IT services and advanced technological and organizational approaches; on the other side, the application of such innovations is highly dependent on the degree of flexibility and adaptability of manpower.

Most of the companies operating in the logistics sector in Italy have not really tried to balance these two aspects. They seem to have rather opted for labor-intensive business solutions, which resort to low-cost and low-skilled workforce and subsequent low investment in digital technologies (see **Figure 2**). According to the Italian Ministry of Infrastructure and Transport, the amount of manpower occupied in logistics activities in 2016 has reached its historical peak of about 1,200 million of units. Thirty percent of total manpower deals with warehousing tasks [20]. This highlights that Italian warehousing activities—and, more generally, logistics services—still base their competitive advantage on the ability to handle people. Therefore, human capital is the key resource, and labor conditions count.

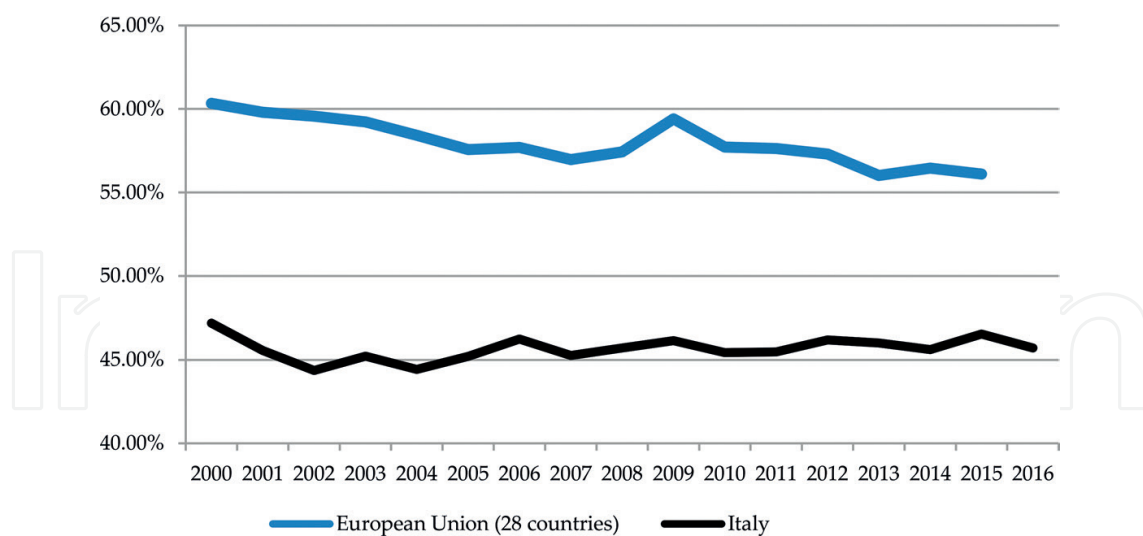


Figure 2. Share of workers' compensation on value added in logistics activities (Source: Elaboration from [19]).

The Northeast of Italy represents one of the most important logistics areas in Europe. There were 2,800 active logistics enterprises in 2015, with a total turnover of 8 billion euros. The reason of the prominence of this geographical area is threefold:

- An important part of the Italian industrial production is clustered in the northeast, which, in turn, explains the large demand for logistics services and, in particular, warehousing activities.
- A large share of Italian manpower is located in the northeastern part of the country, and more specifically in the Veneto region, since most of the industrial activity is established there.
- Most of immigrant, low-skilled, and low-wage labor, which characterizes the logistics sector and warehousing in particular, is employed in the northeast where it is easier to find a job [21].

For all these reasons, we are very much interested in understanding the functioning of labor management in warehousing activities in Northeastern Italy. Accordingly, we base our study in the logistics area around Padua, in the Veneto region, and we focus our analysis on the specific dynamics occurring in warehousing operations.

Just to give an idea of the significance of the setting taken into account for our study, we report in the following table (**Table 1**) the main characteristics of Padua logistics area.

4.2. Data collection and analysis

Data collection followed common prescriptions for case study analysis [22] combining preliminary interviews with key informants, semi-structured interviews with key players, archival documents, and information from newspapers (see **Table 2**).

Logistics connected to warehousing activities is a very complex field, populated by many different actors. The main economic and social operators are described as follows:

Characteristics
Overall area of 2 million sq. meters, including freight rail terminal, courier areas, service areas for people and goods, and fruit and vegetable market
1.05 million sq. meters of urban area
270,000 sq. meters covered with logistics warehouses, of which 23,000 sq. meters of cells and rail junctions
240,000 sq. meters of intermodal rail terminals, with eight intermodal tracks of 700 mt
40,000 sq. meters of offices
Railroad “CORE” node, part of the European network
Source: our elaboration.

Table 1. Padua logistics area’s characteristics.

- The buyers of logistics services (e.g., multinational groups operating in commercial distribution, manufacturing companies, etc.)
- The suppliers of logistics services (i.e., public and private operators), managing warehouses and providing integrated services of storage and handling of goods and commodities
- The suppliers of workforce for logistics activities (e.g., worker cooperatives)
- Trade unions and associations

In addition to these formal players, we find two other important “operators” that are usually not considered by economic and managerial analyses, who play a crucial role in the logistics sector. They are the *informal (illegal) brokers of workforce*—or recruiters of day laborers, according to the terminology borrowed from the agricultural sector—and *nonprofit associations* taking care of logistics workers, who very often are immigrants and/or poor people. Considering the

Sources	Typology of data	Data use
Interviews 197 pages	<i>Preliminary interviews</i> (5) with trade union representatives and managers of companies that outsource warehousing services	Familiarization with the context and identification of key informants for the following focused interviews
	<i>Semi-structured interviews</i> (21) with representatives of logistics companies, employees of cooperatives, and representatives of trade unions	In-depth exploration of work processes and dynamics occurring in outsourced warehousing activities
Other documents 170 pages	<i>Archival documents</i> about activities carried out, website, and reports	Triangulate data and support information emerging from interviews
	<i>Newspaper information</i> related to the specific context and logistics companies taken into account	Triangulate data and support information emerging from interviews
Source: our elaboration.		

Table 2. Data collected and their use.

functioning of the subcontract relationships that actually regulate labor supply in logistics sector, the informal brokers of workforce afford substantial flexibility in terms of costs to the buyers of logistics services, to address variable volumes of activity and greater specialization of services.

Most of the key players interviewed were all employed in the logistics area around Padua but under different companies and cooperatives. The interviews lasted about 45 min and were all recorded and transcribed. Following common practice in qualitative management research [e.g., 23], we coded interviews and documents with the aim of identifying important dynamics and mechanisms in warehousing activities. We will see in the next section that the structure of the sector itself causes a series of problems, which dramatically affect its real functioning.

5. Findings

Competition in subcontract relationships between the suppliers of manpower for warehousing activities leads to a structural tendency to reduce the price applied for the service—which typically refers to transactions carried out or, more precisely, to packages turnover. In some cases, such a price war can determine a drop in the incidence of the cost of labor on the total value of logistics services. In particular, we have found that the suppliers of workforce can implement this competitive strategy in two different ways:

- (a) By introducing new technologies and organizational models aimed at increasing productivity, through the reduction of the number of workers and the simultaneous improvement of their expertise, skills, and wages.
- (b) By adopting organizational models based on the coexistence—in the same warehouse—of formal workers (i.e., employees that are apparently paid in compliance with the existing contractual, tax, and social insurance regulations) and illegal workers, thus affording an increase in formal productivity by squeezing the cost of labor below the minimum legal requirements and by evading taxes and social contributions.

Representatives of trade unions said that the suppliers of manpower and the buyers of logistics services could definitely benefit from the competitive strategy (a) in order to increase cost efficiency of logistics activities and technical and professional quality of workers (e.g., by reducing the demand for unskilled manpower). This strategy would allow reaching these goals without violating any rule in terms of labor legal and social protection. However, as our data demonstrate, the same result is actually achieved by adopting the competitive strategy (b). In what follows, we focus on the dynamics distinguishing this second approach.

The experience of warehousing activities in the logistics area around Padua shows that subcontract relationships for labor supply are very often characterized by the coexistence of legal procedures and systematic violation of rules. Accordingly, the mechanisms adopted in warehousing logistics frequently make the boundary between legality and illegality very blurred. As a representative of a trade union told us:

This is a system intended to exploit workers, reduce costs, and make some people profit from it. Cooperatives are established, closed and re-established with the only intention to pursue fraudulent purposes. Of course, in such conditions, it becomes very difficult to run worker cooperatives in compliance with legal norms and remain competitive.

These practices are made possible thanks to a *shadow management system*, which is based on two main mechanisms:

- (1) An *organizational* one, which relies on *atypical cooperatives*. The distinguishing features of atypical cooperatives (as compared to usual worker cooperatives) are described as follows: (a) they do not belong to any recognized national cooperation group, (b) pure capital shareholders (instead of worker-owners) have the control of the cooperative, (c) worker-owners are essentially excluded from the management, and (d) managerial control is entrusted to a third party, who usually acts as a dummy.
- (2) A *contractual* one, which relies on *social dumping contracts*. These contracts regulate the service and price conditions between atypical cooperatives and the buyers of warehousing services. They are characterized by very low prices that should bring the buyers of logistics services to suspect that the cooperative is violating of labor, tax, and social insurance rules. Indeed, worker cooperatives that do not invest in cost-efficient technological innovations are unable to offer low prices and comply with rules.

As regards the first, organizational mechanism, the fact that atypical cooperatives do not belong to national cooperation groups—with a central organization carrying out coordination activities and monitoring of associates' operations—reduces safeguards and supervisory activities against illicit behaviors. On top of this, the actual control over atypical cooperatives is exerted by external, shadow partners, who often do not play any formal role in their governance. For example, shareholders are often foreign-owned companies subject to loose financial and tax regulations. Accordingly, the chain of power can be very long and may easily hide illegal interests and criminal practices. An immigrant worker of an atypical cooperative said:

I work in the warehouse until 73 hours per week, even though I should not exceed 36 hours. I perceive a very low salary, but this is ok because I have at least a job that allows me to survive and to have some others benefits. I just know what I have to do each day, but anything else about the others and the organization of work.

In many cases, the buyers of logistics services are unable to detect or even suspect illegal practices because of the problem of multiple subcontract relationships. This situation arises when a single cooperative has several buyers as counterparts. In turn, the capacity of each single buyer of warehousing services to control the fulfillment of specific obligations by the concerned cooperative is seriously dampened. Even though, according to the Italian legislation, buyers are responsible also for the obligations and misbehaviors of subcontracting cooperatives toward their workers, the coexistence of multiple logistics operation platforms—possibly, within the same warehouse and corresponding to different buyers—makes it impossible, for each buyer, to check whether its platform regularly employs workers or, instead, uses illegal manpower.

Also, governmental authorities find it hard to supervise atypical cooperatives. In order to elude controls and subsequent sanctions, the life cycle of atypical cooperatives is very short, usually not longer than 2 or 3 years. A regular employee of an atypical cooperative told us:

It's now five years that I work in this area and I have changed three different employers. Practically nothing has changed, but my contracts have been readapted to the new name of the company, even though the conditions are exactly the same as before.

The use of illicit practices, for manpower exploitation and evasion of tax and social insurance obligations, is the central aspect of the functioning of atypical cooperatives. In this respect, a central role belongs to the *informal broker of workforce*. This is the pivotal player of the shadow management system, who makes possible the operationalization of the organizational and contractual arrangements reported above. The informal brokers do not appear in the governance structure of atypical cooperatives but actually have a real power over the management of their activities. With respect to the agricultural sector, where similar players operate, these intermediaries—who mainly operate in the suburbs of Italian major cities—are much more independent in their actions and perform a function similar to dealers in illegal drug markets. In other words, these are “workforce dealers” who employ their own economic resources and establish territorial networks that are usually connected to criminal organizations. A local newspaper reported:

The boss managed five hundred people without having any direct role in the cooperative, where workers providing warehousing activities were exploited and oppressed. Workers tell—but they fear to report this information to the authorities—that at least 30% of the workers used in the warehouses are victims of threats by the side of the boss.

An important reason why the informal brokers of workforce are key players of the shadow management system is their capacity to balance the presence of legal and illegal workers within warehouses and cooperatives. In other words, the informal brokers create a ring fence allowing illegal activities within workplaces and, at the same time, afford formal compliance to labor, tax, and social insurance rules.

Such fine-tuning of illegal and legal activities is particularly relevant in the treatment of formal workers. Although the presence of formal employees is a necessary condition to prevent government controls and preserve the exploitation mechanism, also formal workers are exploited under the shadow management system. In particular, they perceive a salary that is formally in line with the minimum allowed by the national labor regulations (sometimes even more than the minimum), but the *relational contract* they have to accept in order to work forces them to return back a substantial part of their salary. This mechanism has the dual function (a) of reducing the cost of formal manpower and (b) of collecting criminal money to fund illegal operations by the shadow management system.

These criminal funds are firstly used to place illegal workers in the organization of the atypical cooperatives providing warehouse activities. Accordingly, being illegal manpower employed in the logistics sites of the same cooperative, their very low remuneration contributes to drastically reduce the cost of labor and increase the margin of profit coming from labor exploitation. The illegal situation—which poor and migrant workers (e.g., usually without a valid residency permit) are subject to—strengthens the bargaining and coercion power of the

informal broker and, more generally, of the shadow management system. This power is used, of course, to squeeze wage and nonwage work conditions, with the only limit of the physical subsistence of manpower. A representative of one of the most influential trade unions in logistics reported:

Warehouses are places where workers undergo terrible injustices. However, they remain silent fearing to lose their job, their residency permit, or both. This is not possible because these workers have to return to their family of origin the money they got on loan for sending them abroad in search of a better life.

Criminal money is also used to finance several other illegal activities in different sectors (e.g., corruption of public officers). These findings highlight the intimate connection between labor exploitation in logistics outsourcing and the most widespread forms of corruption that are unfortunately very much diffused.

Finally, it is worth to provide additional details on the implementation of the *relational contracts* that are crucial to the very effectiveness of the shadow management system. In particular, we analyze the specific techniques that are employed by the informal brokers to control and constrain workers. These are the following ones:

- (a) The threat of job loss, which must be credible to be fully effective. Its credibility actually derives from the abundance of unemployed workforce. In this respect, it is worth highlighting that the inflow of new immigrants plays an essential role to keep the exploitation system effective. Indeed, it makes the threat of job loss credible and, by increasing competition among workers, also squeezes salaries toward the level of subsistence. An employee of a cooperative said:

It is not allowed to be sick and to be less productive because otherwise the –thousand of people from Bangladesh needing a job will replace you.

- (b) A welfare to exploited work, which relies on the provision of a wide range of social and assistance services by informal brokers to formal and illegal workers, such as legal and administrative assistance in immigration procedures, housing, health services, microcredit, etc. Such social service package creates an “exploitation trap” by increasing the opportunity cost of quitting the shadow management system for exploited workers, for example, by reporting it to governmental authorities. Indeed, leaving that system would mean to lose all the connected social services that would be impossible to obtain from someone else than the informal broker. This mechanism is even more effective in the case of illegal workers, who do not have any regular residency permit and, therefore, cannot access any public assistance scheme.

The “welfare-to-exploited-work” system is particularly effective in the Italian context where legal social services to poor and immigrant workers are underprovided. Public funding in Italy is clearly insufficient to provide effective social assistance services. On top of this, the Italian public social services are quite fragmented and, therefore, unable to secure effective social protection. The fragmentation of social service provision, as well as the ineffectiveness of public-private intervention in the social field, has been told by many interviewees to be the main limit for competing with the welfare system provided by the informal brokers of manpower. As a worker reported:

I have to be thankful to my “boss” because he gave me a home to stay and medical assistance to my children when they needed it.

The role of the informal brokers of labor has deleterious effects on trade unions functioning as well. The control over a huge amount of workers operating in warehousing activities puts brokers in the condition to influence the way trade unions operate. In some cases, brokers can even trigger trade union claims in order to extort “benefits” from the buyers of logistics services and logistics operators themselves. The real paradox of the logistics sector in Italy is that the very players that, in the conventional wisdom, should greatly benefit from workers’ exploitation—i.e., the buyers of logistics services—end up in being among the victims of the shadow management system, in the form of blackmails and extortions. Accordingly, the control power exerted by the informal intermediaries ends up emptying trade unions of their role of labor protection. This effect is, in particular, determined by the capacity of the informal broker to force workers under his control to quit a particular trade union and take the card of another, in order to pursue the broker’s agenda. A representative of a trade union noticed:

The “boss” told some of the workers under his control to take the card of [Trade Union A] to rebalance the weight of that union with that of [Trade Union B]. He holds in his pocket the banking payment cards of formal workers, in order to have the maximum degree of flexibility in taking back the money paid to them.

A general model summarizing our findings is reported below (**Figure 3**).

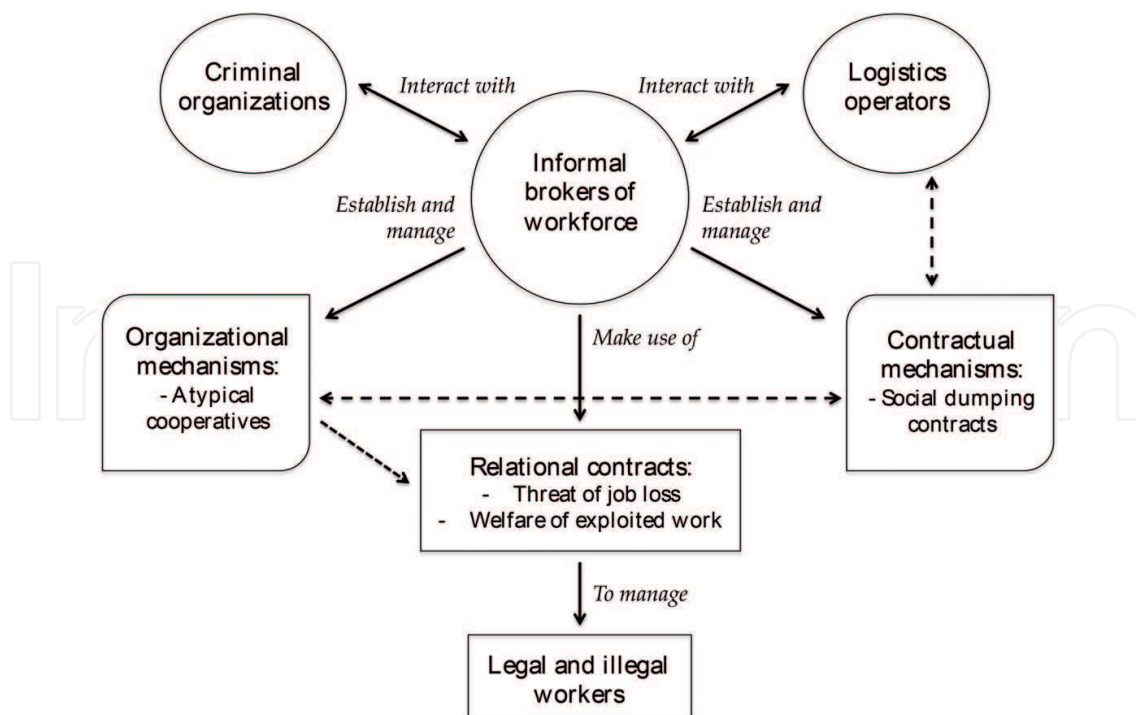


Figure 3. A model for the “shadow management system” in logistics (Source: our elaboration).

6. Conclusions and implications

As highlighted in this chapter, the outsourcing of logistics and, in particular, warehousing services in GVCs may involve relevant “unintended consequences” in terms of social sustainability of the business models on which contemporary capitalism rests. We saw that cooperatives providing these services may, quite easily, be part of a wider shadow management system that bases its business model on clever blend of legal and illegal activities aiming at labor exploitation, tax and social insurance evasion, and corruption.

Our analysis shed a new, dreadful light on the negative externalities of the twenty-first-century capitalism. To some extent, what we see now reproduces, at the heart of contemporary Europe, the typical working conditions of early stages of industrialization, featuring Europe between the end of the eighteenth and the end of the nineteenth centuries.

A number of research and policy questions arise from our analysis. The first crucial question is about the relationship between the shadow management system for workers’ exploitation in logistics, on one side, and organized crime and transnational illegal activities (e.g., money laundering, human trafficking), on the other. Though this is an interesting issue for future research and many important details are missing, we can draw here some educated guesses. As our analysis has pointed out, organized crime is likely to be the main provider of two crucial inputs of the shadow management system, namely, (illegal) financial capital and (illegal) workers. Criminal organizations have business motives, technical capacity, and global networks to play this role. It is quite likely that these organizations are crucial stakeholders of the shadow management system in connection with informal brokers of manpower.

Another issue is the (causal) relationship between the functioning of the shadow management system and the severity of social deviance phenomena and crime that feature big cities (e.g., prostitution, pimping, drug trafficking). Our analysis highlights the essential function of large unemployment of illegal and very poor workers to support the implementation of the “exploitation trap” by the shadow management system. Such extremely bad economic situation fosters petty crime and social deviance, as underlined in interviews by volunteers working in nonprofit associations that support poor and migrant people.

The natural policy question that arises by our analysis is what are the ways out? Our investigation provides some interesting clues in this respect. The first issue is the control of transnational illegal activities. Improving international cooperation to fight money laundering and human trafficking would also reinforce the capacity of governmental authorities to fight the implementation of the shadow management system, in particular through atypical cooperatives.

Another important tool is social policies. In the case of Padua, the shadow management system draws large part of its strength from the stark unbalance between the power of informal brokers of workforce and the weakness of civil society and government to address the social needs of poor and immigrant people. A key factor of this unbalance of powers is the capacity of the shadow management system to provide, on top of jobs, effective welfare services. A strategy pursuing a rebalance of powers in this field could be based on a wider and stronger “public-private social service network,” aiming at rationalization, coordination, and strengthening of

public and private resources and initiatives that already exist in many Italian cities. On top of such incentive effect, a functioning legal protection system against poverty and social disadvantage is, as workers told us, an effective social control mechanism to counter other social deviance phenomena that affect the weaker part of our society.

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References

- [1] Lai F, Tian Y, Huo B. Relational governance and opportunism in logistics outsourcing relationships: Empirical evidence from China. *International Journal of Production Research*. 2012;**50**(9):2501-2514
- [2] Sohail SM, Bhatnagar R, Sohal AS. A comparative study on the use of third party logistics services by Singaporean and Malaysian firms. *International Journal of Physical Distribution & Logistics Management*. 2006;**36**(9):690-701
- [3] Quélin B, Duhamel F. Bringing together strategic outsourcing and corporate strategy: Outsourcing motives and risks. *European Management Journal*. 2003;**21**(5):647-661
- [4] Kremic T, Icmeli Tukel O, Rom WO. Outsourcing decision support: A survey of benefits, risks, and decision factors. *Supply Chain Management: An International Journal*. 2006;**11**(6):467-482
- [5] Gere G, Fernandez-Stark K. *Global value chain analysis: A primer*. Duke University CGGC. 2nd ed. 2016
- [6] Bhatnagar R, Teo CC. Role of logistics in enhancing competitive advantage: A value chain framework for global supply chains. *International Journal of Physical Distribution & Logistics Management*. 2009;**39**(3):202-226
- [7] Rodrigues AM, Bowersox DJ, Calantone RJ. Estimation of global and national logistics expenditures: 2002 data update. *Journal of Business Logistics*. 2002;**26**(2):1-16. DOI: 10.1002/j.2158-1592.2005.tb00202.x
- [8] Feenstra RC. Integration of trade and disintegration of production in the global economy. *The Journal of Economic Perspectives*. 1998;**12**(4):31-50

- [9] Hesse M, Rodrigue JP. The transport geography of logistics and freight distribution. *Journal of Transport Geography*. 2004;**12**(3):171-184
- [10] Rodrigue J-P. Transportation and the geographical and functional integration of global production networks. *Growth and Change*. 2006;**37**(4):510-525
- [11] Ojala L, Andersson D, Naula T. Logistics Value Chain. UNIDO Background Paper. 2006
- [12] Memedovic O, Ojala L, Rodrigue JP, Naula T. Fuelling the global value chains: What role for logistics capabilities? *International Journal of Technological Learning, Innovation and Development*. 2008;**1**(3):353-374
- [13] Büyüközkan G, Feyzioğlu O, Nebol E. Selection of the strategic alliance partner in logistics value chain. *International Journal of Production Economics*. 2008;**113**(1):148-158
- [14] Yang Q, Zhao X, Yeung HYJ, Liu Y. Improving logistics outsourcing performance through transactional and relational mechanisms under transaction uncertainties: Evidence from China. *International Journal of Production Economics*. 2016;**175**:12-23
- [15] UNCTAD. Review of Maritime Transport 2017. 2017. Available from: http://unctad.org/en/PublicationsLibrary/rmt2017_en.pdf [Accessed: 23 November 2017]
- [16] Richards G. Warehouse management: A complete guide to improving efficiency and minimizing costs in the modern warehouse. London/New York: Kogan Page Publishers; 2017
- [17] Rushton A, Croucher P, Baker P. The Handbook of Logistics and Distribution Management: Understanding the Supply Chain. London: Kogan Page Publishers; 2014
- [18] Osservatorio Contract Logistics “Gino Marchet”. Logostica 4.0, la risorsa resta il capitale umano. 2017. Available from: <https://drive.google.com/drive/folders/0Bz1qUrDb0DtOTROZ1hnd3Vkc2c> [Accessed: 23 November 2017]
- [19] Eurostat. National accounts aggregates by industry. Available from: <http://ec.europa.eu/eurostat/data/database> [Accessed: 23 November 2017]
- [20] Ministry of Infrastructure and Transport. 2017. Conto Nazionale delle Infrastrutture e dei Trasporti. Available from: http://www.mit.gov.it/sites/default/files/media/pubblicazioni/2017-07/Libro%20CNIT_2015-2016%20bassa%202.pdf [Accessed: 23 November 2017]
- [21] Ministry of Labour and Social Policy. 2017. Nota semestrale sul mercato del lavoro degli stranieri in Italia. Available from: <http://www.lavoro.gov.it/documenti-e-norme/studie-statistiche/Documents/Nota%20semestrale%20sul%20mercato%20del%20lavoro%20degli%20stranieri%20in%20Italia%202016/Nota-Semestrale-MdL-stranieri-2016-DEF.pdf> [Accessed: 23 November 2017]
- [22] Yin R. Case Study Research: Design and Methods. Thousand Oaks: Sage; 2003
- [23] Gioia DA, Corley KG, Hamilton AL. Seeking qualitative rigor in inductive research: Notes on the gioia methodology. *Organizational Research Methods*. 2013;**16**(1):15-31