INTERORGANIZATIONAL RELATIONSHIPS IN ITALIAN LOGISTIC PLATFORMS: THE ROLE OF META-LOGISTIC OPERATORS

Paolo Canonico*, Ernesto De Nito**, Gianluigi Mangia*, Marcello Martinez***

* Dipartimento di Economia Aziendale, Università degli Studi di Napoli Federico II, 80126, Napoli, Italia
** Dipartimento di Diritto dell'Organizzazione Pubblica, Economia e Società, Università degli Studi Magna Graecia, 88100, Catanzaro, Italia
*** Dipartimento di Strategie Aziendali e Metodologie Quantitative, Seconda Università degli Studi di Napoli, 81043, Capua (CE), Italia

ABSTRACT
The logistic system as an element giving a competitive advantage to individual organizations and business firm systems alike, is now becoming increasingly relevant (Håkansson e Persson, 2004). In particular, logistic platforms (in Italian, interporti) carry out a highly central role in the Italian economic system, in that apart from facilitating interconnections between various transport modalities, also facilitate the role of ports as links joining up overland routes with sea routes (Boscacci F., 2003). Many logistic studies, and more generally studies relating to supply chain management adopt a systems-type perspective, in which continuous interaction takes place between actors and activities characterizing the system and bringing about its success. In this sense, as Christopher claims (1992), “real competition is not [any more] company against company but rather supply chain against supply chain” (p.14). The aim of the paper is analysing the activities carried out within the logistic platforms infrastructures, amongst which a leading role is played by a certain special typology of actor, defined as Meta-Logistic Operators (MLOs).

Keywords: Logistics strategy, meta-logistic operator, logistic platform.

SERVICE AND PROCESSES WITHIN ITALIAN LOGISTIC PLATFORMS
The logistic system, as an element giving a competitive advantage to single organizations and business firm systems alike, is now becoming increasingly relevant (Power et alii, 2001; Håkansson e Persson, 2004; Gourdin, 2006; Li et alii, 2006). One of the main reasons, is to be found in the central position occupied by the processes associated with the collection and distribution of goods and finished products in the economics of the entire production cycle (Bechtel, 1997; Senn L. 2003; Esper, et al.. 2007). More especially, a discriminating role in the evaluation of a logistic network may be attributed to the strength and soundness of an efficiently-operative intermodality system (Leinbach and Capineri, 2006).
In this regard, a significant step forward in the history of intermodality in Italy was made between the late 1970s and the early 1980s, a time when considerable public and private funds were invested in
integrating transportation modalities effectively, and creating platforms specialized in the handling of load units (both port and inland terminals) (Senn, 2003; Boscacci, 2004).

As to the political interest shown in developing an integrated logistic network, a noteworthy trend is to be recorded with law n. 240, dated 4th August 1990, aiming at implementing and modernizing Italian infrastructures for promoting and extending intermodality further a field.

This was coherent with the progressive trend: whereas the objective in the first General Transport Plan (1986) had been to integrate the logistic and transport system in Italy, the focus in the 1999 General Transports Plan now moved towards integrating logistic systems.

Thus, there was the emergence of a number of logistic platforms and inermodal terminals that carry out a highly central role in the current economic system, facilitating both interconnections between various transport modalities and the role of ports as strategic (Dalla Chiara, et al., 2002). In this view, Italian logistic platforms can be compared with Spanish Zonas de Actividades Logisticas (ZAL), German Güterverkehrszentren (GVZ), French platformes logistiques, British Freight Villages. Interporti exert a locational pull on logistics sites by combining a strong intermodal nature with network advantages (Woxenius, 1999; McKinnon, 2001; Notteboom and Rodrigue, 2004).

Logistic platforms may, therefore, be defined as transit and warehousing knots, characterized as integrated systems of intermodal transport and logistic and general services (Dalla Chiara et alii, 2002). The role played by logistic platforms in the competitive context is moreover associated with the affirmation of specialized operators of transport services. In this context, there are many complex elements related to the fact that essential typologies of resources and different competences require a ‘joint effort’ on the part of different typologies of organizations and institutions (Dell’Olmo and Lulli, 2004). In this view, it is expedient to adopt an organizational perspective that implies a strong emphasis on the coordination mechanisms and on the inter-firm division of labor (Giannoccaro and Pontrandolfo, 2003).

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Reference to the role of operators specialized in the logistic services proves useful for understanding the real significance of logistic platform infrastructures, which are presented as internally-articulated systems characterized by the presence of many typologies of actors (e.g. forwarding agents, infrastructure owners, logistic operators, handling firms, etc.) who are all linked up together by a complex system of reciprocal interrelationships (Canonico, De Nito, Mangia, 2006).

With regard to the system of activities carried out within the logistic platform, a sharp difference must first be pointed out in that besides management and goods-handling and vehicle services, certain administration and consultancy services are also provided (see Table 1). Logistic platform infrastructures are found to be closely associated with local territorial bodies with regard to the management of transport policy undertakings aimed at relieving congestion, protecting the environment, and enhancing the quality of life.

Furthermore, logistic platforms imply the presence of adequate managerial and administrative expertise essential for performing real estate management services. In this view, logistic platform can provide what Greis and Kasarda (1997) define as economies of conjunction that identify the ability to handle multiple events and activities contemporarily (Rondinelli and Berry, 2000).

The examination of the activities carried out within the logistic platforms infrastructures (shown in Table 1) allows the identification of different typologies of organizations, making a distinction in terms of the centrality of the role played by a ‘focal organization’ (Lorenzoni, 1992). We interpret the focal organization as a Meta-Logistic Operator.

Thus, in reference to each single macro-category of services shown in Table 1, the services associated with planning and development activities and those of real estate management are typically carried out autonomously by the management company of the logistic platform. The services associated with traditional logistic operations are generally supplied by the various typologies of operators by utilizing privately-owned structures, as well as rented or licensed properties. It means that we are in front of a process of fragmentation. The presence of many and articulated relationships among the operators makes expedient to consider a coordination problem in terms of organizational mechanisms that can be used. (Evan, 1966; Lorenzoni, 1992; Martinez, 1997). Each single organization establishes relations with other firms, institutions, entities, in order to increase its influence and to meet necessary legal requirements (Oliver, 1990).

With regard to the management services of the intermodal terminals, these may be performed by companies specialized in manoeuvring, assembling and dismantling train services, as well as by the management companies themselves, or better still through a joint venture between the operator and the management company.
THE ROLE OF META-LOGISTIC OPERATORS BETWEEN COORDINATION AND CONTROL

Many logistic studies, and more generally studies relating to supply chain management adopt a systems-type perspective, in which continuous interaction takes place between actors and activities characterizing the system and bringing about its success. In this sense, as Christopher claims (1992), “real competition is not [any more] company against company but rather supply chain against supply chain” (p.14). From the analysis of the various typologies of services supplied in the logistic platforms, as well as of the heterogeneity and large number of operators involved, it seems possible to interpret this latter statement by claiming that the success of a logistic platform may be determined not only by the single management company, but by all the actors taking part in it and by the typology of their existing relationships. Thus, it becomes useful to consider the logistic platform as a single unitary system, as emphasised by Lambert and Stocke (1993) for whom logistic systems must be viewed as a whole.

Organizational theories state that organizations can not be considered conceived as autonomous respect to other institutions, firms, and public entities. Adopting a resource based perspective, it is possible to underline that the chances to succeed are fundamentally dependent on the capacity of setting up interorganizational relations (Pfeffer and Salancik, 1978). Nooteboom (2004) states that organizations establish relationships in order to improve their business processes. The selection of business partners is made in order to identify other organizations provided with the necessary resources.

In order to interpret the real functioning of a logistic platform it is possible to distinguish two main alternatives. The first one refers to the presence of a Meta-Logistic Operator that plays a central role in terms of coordinating and controlling the activities carried out within the logistic platform. The second one describes the situation in which there is not a central operator/organization able to play this focal role, but the distinguishing element is represented by an integrated system of relationships among different actors (Bowersox et al., 2000).

In this view, it is expedient to refer to the analysis by Golicic et al. (2003) who define the concept of inter-organizational magnitude within the logistics field, as the degree of strength or closeness of the reciprocal relationship. At the same time, Golicic and Mentzer (2006) analyze three different type of inter-organizational relations, considering in particular their magnitude. The first typology includes the market governance hypothesis; the second category refers to the hierarchical governance and so to the vertical integration strategic alternative; the third hypothesis defines the cooperative relationships that imply a concept of hybrid governance.

The idea of business models can be related both to the concept of creating strategic value and to the representation of reality. Stemming from this premise, a business model can be defined “as a representation of a firm’s underlying core logic and strategic choices for creating and capturing value within a value network” (Shafer et al., 2005).

The idea of business models seems to be particularly coherent with the relevance of inter-organizational relationships. In fact, the value creation process (Hamel, 2000) implies the existence of a sort of network, that can involve several and different typologies of organizations, firms, institutions.
METHODOLOGY

The investigation was carried out through an initial phase both of literature review on supply chain management and of material gathering from induced sources, and then subsequently through making semi-structured interviews with the top management of the seven logistic platforms analyzed (Nola, Parma, Padova, Rivalta Scrivia, Torino, Verona, and Bologna), which represent the load-bearing axis of the Italian Interporti system (Corte dei Conti, 2003). Each single interview lasted 90-120 minutes and was directly made at the participant’s workplace. The time-span is from 2004 to 2006.

Although a large part of logistic research is based on quantitative-type methodologies (Mentzer and Kahn 1995; Mentzer and Flint; Naslund 2002), preference was given to adopting a methodology of a qualitative-type of data collecting which Naslund considers necessary for developing the research on logistics, as it allows the opening up of a wider perspective on the investigation object (Naslund 2002).

More especially Naslund proposes as follows: «an interesting question is: if researchers within a certain discipline do the same kind of research as everyone else within the discipline, then how useful will that research be?» (Naslund, 2002, p. 327).

We decided to deploy a qualitative research in order to understand the emergence of new business models in the Italian logistic system. Our main aim was to understand in-depth the real functioning of logistic platforms in Italy, in order to identify (if possible) some business models conceivable as archetypes.

RESULTS AND DISCUSSION

On the basis of the results achieved, it seems possible to show certain elements that are in common among the Italian logistic platforms examined. Historically, due to the law 240/90 Italian logistic platforms have developed through public funding. In all the logistic platforms examined, for the management companies examined the organizational dimension is a critical variable, so all of them try to keep a lean structure. This organizational choice is coherent with the focus on real estate management services and administrative services. Moreover, it is useful to remark that in all the logistic platforms under scrutiny, with the exception of Rivalta, there is a highly-articulated group of established operators that carry out all logistic activities.

Apart from these common elements, there are also elements characterizing each logistic platform. In the case of the Padua one, the management company, Interporto Padova S.p.A., focuses mainly on managing rail and container terminals services. Thus, control over the entire cycle of logistic services by the management company figures as a core element in terms of centrality of the organization and its capacity to act as element of attraction with regard to all the other operators. Another peculiar element is represented by the effort of the management company of the Padua logistic platform to increase its own know how towards the provision of consulting services, for instance contributing to the design of new logistic platform structures in Eastern European countries.

In the Parma logistic platform, the role of management company (Cepim) is focused on the management of warehousing services. At present the Parma logistic platform management company is also involved in administrative activities that involve other logistic operators that exploit this platform. In the Bologna logistic platform, the management company (Interporto di Bologna S.p.A.) focuses on planning and territorial development, in order to support research initiatives, the promotion of intermodality, even through the participation of local government bodies.

In the Nola logistic platform, the management company focuses mainly on the administration and real estate services. The activities carried out by the management company, apart from the maintenance of the buildings, in particular regard the traffic control, that clearly represent a critical area for the
functioning of a logistic platform. Furthermore, the management company is involved in boundary spanning roles, setting up relations with potential investors, institutions and other stakeholders.

Considering the case of the Turin, the management company (SITO) focuses both on the strategic planning services and on logistic services. This solution seems coherent with the medium-term strategy of the top management, who wants to focus more and more on the development of logistic services, in order to create an international network with other important European logistic infrastructures.

In the case of the Verona logistic platform, the management company is really focused on the logistics services management, coordinating and controlling both the warehousing activities and dispatch/reception process. Furthermore, the strategic territory planning services are coherent with the mission of the ZAI consortium (the Meta-Logistic Operator).

The Rivalta Scrivia logistic platform represents a special case: in fact, the management company actually works as a real and proper logistic operator, keeping the ownership of almost all the warehouses and other infrastructures. It means that the management company is directly involved in all activities relating to logistic services and the real estate management services. On the contrary, planning and development services appear less crucial.

Through our analysis of the business processes within Italian logistic platforms we are able to identify 4 different models in order to describe the differences in the role played by the Meta-Logistic Operator. Key dimensions for interpreting such processes are, among the others (Woxenius, 1998; Ramstedt and Woxenius, 2003), the degree of control of logistical processes and the business focus of the Meta-Logistic Operator on intra-organizational or inter-organizational processes.

With the degree of control of logistical processes we assess the intervention of the Meta-Logistic Operator on the main business processes that take place in logistic platforms. High level of control on intermodal logistic business processes is a typical feature of those MLO that offer directly a various array of logistic services.

With an intra-organizational business focus, we mean a direct control of the MLO on logistic business processes.

With an inter-organizational business focus, we identify a situation in which logistic business processes are partially under direct control of the MLO, and partially managed by third parties, that are connected through business relations with the Meta-Logistic Operator.

**The MLO as a Real Estate Manager**

In this business model there is a low degree of control of the MLO on logistic processes, that are actually almost non existent. The Meta-Logistic Operator controls directly, instead, only processes that deal with real estate management (intra-organizational focus).

Stakeholders of MLO in this case are mainly private entrepreneurs that decided to invest in properties within the logistics industry. Planning and development processes are very limited and instrumental towards the chance to obtain public funding. Logistic processes and terminal management operations are run by third parties that decided to buy or rent buildings and infrastructures located in the logistic platform, or that run intermodal terminals. Such companies operate autonomously, have their own logistic cycle of sending and forwarding goods, and do not need to realize business integration with other partners.

**The MLO as an Intermodal Agency**

In this business model also there is a low degree of control of the Meta-Logistic Operator on logistic processes. MLO controls directly, instead, only processes that deal with territorial planning and development, that are promoted through an intense interaction especially with local public agencies (inter-organizational focus).
Stakeholders of Meta-Logistic Operator in this case are mainly public agencies that have an interest in developing public policies on transport issues, on congestion reduction, on traffic diminishment. Real estate processes are present but instrumental to the core objectives of such organizations. Also in this case, logistic processes and terminal management operations are run by third parties that decided to buy or rent buildings and infrastructures located in the logistic platform, or that run intermodal terminals.

*The MLO as a Logistic operator*

In this business model the MLO plays a very central role because it handles and/or controls the logistic processes carried out within the logistic platform.

The ability of the Meta-Logistic Operator of coordinating and controlling the logistic activity, in several cases, depends directly on the central role played by the organization in the first step in the development process of the logistic platform. In fact, very often the MLO after building up the infrastructures, manages directly the real estate properties in order to provide logistic services.

The main stakeholders are represented by private entrepreneurs who are involved in activities directly related with the logistics management. First of all, it is expedient to consider the role played by global transport operators (DHL, UPS…), by intermodal transport operators (CEMAT…..), On the other side, the real estate process do not represent the core of the business: consequently, these activities are very often outsourced. Finally, the Meta-Logistic Operator does not coordinate other players, that own either buildings or infrastructure within the logistic platform. Considering the interviews and the documentation analyzed, there is not a strong need of integration.

*The MLO as an Intermodal business promoter*

In this business model, the Meta-Logistic Operator is deeply involved in controlling and coordinating other logistic operator, even through the setting up of new inter-organizational coordination mechanisms.

With respect to the previous model, the main difference is that the MLO plays a very important role also in the management of the planning and development processes. The main reason is that, in several circumstances, the focal organization is focused in terms of competences and expertises in the planning and building up activities.

Local government entities represent one of the most important stakeholders for the Meta-Logistic Operator. Real estate activities (e.g. contract, administration, accounting, infrastructures and plants maintenance) are not so crucial: typically these areas of responsibility are outsourced.

In the following table we describe the positioning of the logistic platforms analyzed considering the two main dimension of degree of control on logistic processes, and the business focus.

**CONCLUSIONS**

With regard to the initial objective of the research that concerned the study of business models within the Italian logistic platform system, it is possible to draw some conclusions.

Firstly, the shaping of the Italian platform logistic system has in fact been influenced by its constitutive process through the financings provided for by law 240/90, as mentioned in paragraph 1. This element has considerably influenced the nature and role of the management company that presents a strong public-type characterization and consequently has objectives of a social kind.

Secondly, in the current situation within the different logistic platforms set ups, the presence of a Meta-Logistic Operator has been shown, typically represented by the logistic platform management company, which is centrally located on the account of the role it plays and of the various typologies of
activities it carries out, and the influence that it is consequentl y able to exercise. In this regard it seems useful to recall the example of Padua logistic platform, in which the management company assumes a central position in proportion to the control on the planning activities and implementation of the real estate and plant.

However it must be shown that, in the presence of a focal organization, the creation of a system of inter-organizational relationships which may effectively take shape as an “integrated network” does not follow straightforwardly. Indicative in this sense is the reference to the Bologna platform logistic in which, despite the presence of the management company that plays a focal role for the control of the planning and development activities, the presence has not been shown of a complex relational fabric of reciprocal dependence between the various knots (e.g. logistic operators, forwarding agents, distributors, carriers, etc.). In the case of Bologna, in fact, the management company has tried to bring together several actors by means of certain common projects (in particular the construction of an information system for the integrated management of the data) that have not encountered success, because of the resistance associated with economic and cultural factors.

Although the choice to build up a classification scheme looks like a process of simplification, it is interesting to note how the Italian scenario is various and complicated. If at a first and superficial analysis a logistic platform could be considered simply as a logistic operator, going deeper the Italian reality shows a focus on a different core business and complex know how.

As next step of the research, we intend to carry out an international comparison with Spanish Zonas de Actividades Logisticas (ZAL), German Güterverkehrszenentrein (GVZ) and French platformes logistiques. Our research question refers to the possibility to identify either points in common or differences with our results related with the Italian situation.

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