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Third Party Logistics Evolution: Lessons from the Past

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This paper aims at providing an assessment of the third party logistics evolution over the period of 1900s up to the millennium. It concludes with a conceptual model which summarises the main stages of the third party logistics evolution according to relevant organisational, logistical and strategic transformations, and world main events. This task entails a thorough literature analysis of the organisational shifts and logistics movements over time. Their analysis is supported by the pertinent strategic trends and world main events.

Introduction

There is a continuous increase of the importance of the third party (TPL) or contract logistics in company's performance. The study of the TPL history has shown that as the companies continue to source in one continent and manufacture in another, and then selling in yet third, the management of the distribution channels becomes a very complicated task for the companies to manage in-house. Thus the need for contracting will continue to grow. Relevant estimates of the TPL penetration rate have shown a growth from 2.7% in 1992 to 10% by the end of the millennium. At the same time, the market for contract logistics is expected to reach \$47-50 billion in the year 2000 from \$10 billion that it was in 1992 (Muller 1993). The main reasons that lead companies to explore outsourcing are their need to reduce inventory, penetrate markets, reduce contracts, and gain expertise (Richardson 1990).

The study of the TPL evolution can provide guidelines for future trends in contract logistics development. This can contribute to future competitive strategy planning; company's understanding of the way TPL can contribute to its corporate plans, and encourage academia to search for further implications for the company's operations. This paper addresses three elements: the relation of organisational evolution to the TPL development, the five different phases that contract logistics went through in relation to the key variables affecting its growth, and the patterns emerging from the past that might predict the possible future of TPL.

The Three-Stage Model of Organisational Development

The term organisational development describes the evolution of the company's structural system. It reflects the inverse relationship between control and ownership over time. As the ownership structure becomes more complicated (from single to institutional ownership) the control becomes more decentralised. Concurrently the third-party distribution involves high company reliance for control on these third parties (Aestern 1993: 23). Therefore the historical review of the third-party distribution from an organisational evolution spectrum helps to explain one of its major development factors.

Chandler and Daems (Wilson 1995: 10-15) divide the organisational development in three stages: personal, entrepreneurial and managerial. The personal stage describes a highly centralised organisational form with no delegation of authority or capital outsourcing and full control of the company's activities and functions by the owner(s). The entrepreneurial stage has a level of separation between ownership and control. Thus the control power is delegated to professional managers for organisational functionality to be achieved. Finally, the managerial stage separates completely the ownership from control. The three levels of management, strategic, functional, and operational, are allocated to professionals. Hence, the managerial style is influenced by the level of effectiveness and efficiency required by the company functions. The next section describes the third-party

distribution evolution through this three stage model. Although the above study has taken place some time ago, it can still provide the necessary general framework to explain the different organisational steps.

Organisational Development as a Factor of the TPL Evolution

Organisation is a process (Urwick 1960¹: 11) that reflects on the relationship between control and ownership (Wilson 1995: 11). Therefore it can explain the dispersion of the power and control management activities by referring to the structural and strategic transformations. Hence, the evolution of the TPL has been influenced by the continuous organisational modifications. This section shows the link and the parallel growth of TPL and organisational change.

Despite the fact that the *personal* organisational form has its roots in the late 19th century it continued developing until the early 20th century. In this “Second Industrial Revolution” period, as it is commonly called, organisations were mainly focused on production and manufacturing. Since technology was not yet well developed to cover the product demand, the market remained mainly domestic. The strategic, functional, and operational control is by single individuals. Thus, companies are not willing to shift to TPL unless there are significant cost advancements or there is a lack of transportation means. Even if the latter is the case the activities of the TPL provider focused only on providing physical or haulage services. The power and control stayed in the hands of the producing company management. In other words, transportation organisation and personnel selection is usually under the client’s “own-operation” (Buck 1990).

Consecutively, the *entrepreneur* organisational form is the intermediary form between the simple structure of individual organisational control and the complete separation of control and ownership through the development of complex organisational network structures. The main world event that determined the future of both organisational structure and TPL evolution was World War I. Following that time the geographical changes, economic recession and new market trade prospects encouraged the development of mergers and recognition of the increasing importance of distribution. Although TPL was still responsible for only a single distribution activity, haulage, a vital positive step was made towards TPL’s future prospects. Retailing became the first main TPL “customer” that developed contract distribution relations. The reason was the critical role of an effective distribution network that could fulfil the needs for right time - right place distribution. These activities could not succeed for the company unless there was assistance from a third-party that specialised in these activities. So, retailers became the first to pin point the advantages of the TPL and became the drivers to spur the developers of TPL. “Retailers were among the first to recognise the effect of distribution efficiency on inventory holding, and consequently profit margins” (Wilson & Fathers 1989: 26-29). Wholesalers however did not recognise the significant role of TPL until the mid 1970s, that is later in the managerial organisational form. However the main control of transportation rested with the company.

The main movements after the mid 1940s were *rationalisation* and *corporatism*. In *managerial* organisational form, the control is independent to the ownership. Primarily World War II and subsequently the other world conflicts caused major geopolitical, economic and technological modifications. This is the period of fundamental shifts in markets and continuous organisational upheavals. More specifically, World War II stimulated the M-form (multi-divisional form) expansion, initially in the USA, and later in the rest of the world, targeting operational efficiency and new market service improvement (Chandler 1980:32). With the end World War II, companies targeted quick response and industrial expansion. In other words, because of the need for operational efficiency, new market capture, and escalating trade, the physical distribution was upgraded in priority. At this point the TPL was starting to be considered as an alternative to own-transportation². Cost advantages and transportation shortages are still the main reasons for companies selecting TPL. However what is noticeable is that although there is a realisation to outsource transportation to experts, there is a time gap between “we accept and understand there is a need for TPL” and the “managerial acceptance and implementation of the TPL strategy”. Thus the change of the company’s strategic attitude towards the TPL lags behind. The loss of power and control remained the major reason for delaying the selection of the TPL option. In the period from the late 1950s until the 1970s internationalisation, the rise of multinationals, and the synergy concept prepared the ground for TPL. In the beginning TPL providers were operating separate warehousing and transportation activities without much control on the management. However, over this time the quality and the customer satisfaction movements required companies to increase their attention on the improvement of those activities and leave the

¹ Found in Wilson 1995.

² Company owns all the needed transportation means and it is responsible for their maintenance and management (planning and personnel).

TPL provider to concentrate more on the distribution processes. With changes in the trade rules in the competition arena and the increasing complexity of the distribution channels TPL providers were gaining more and more influence over the distribution strategies of the companies. The big breakthrough, when even academia recognised the vital importance of the TPL was in the 1980s. Porter's *Competitive Strategies* (Porter 1980a) and *Five Forces Model* (Porter 1980b) and marketing's five P's, established TPL as an essential function for the success of the company. The TPL provided not only integrated services but also undertook the planning and implementation of whole product distribution projects. In addition, the continuous multiplication of providers increased the competition among them to supply additional services.

To summarise, this brief historical review has shown patterns relating the growth of TPL to organisational development. There is a logical sequence in the way TPL develops in relation to other factors affecting its growth. Thus, by knowing the independent variables, it is easy to predict the dependent one (TPL). It is very important to examine the major factors that might explain the future of the TPL. The next section presents an analysis and explanation of the key factors affecting the TPL development.

The Five Phases of TPL

There are not clear cut boundaries in the TPL evolution. However the development can be divided in five main phases according to the type of services it provides, the level of control it exercises and the level of strategic importance it plays in companies' strategies. The *type of services* can be divided in five categories:

- **Single services;** the third party can provide only haulage (or transportation) or warehousing services.
- **Separated services;** the third party can provide either hauling or warehousing services.
- **Integrated services;** the third party can provide a combined haulage or warehousing services.
- **Combined services;** the third party can provide extra services on top of the equipment, warehousing, transportation functions such as trade administration and planning services.
- **Complex combined services;** the third party can provide a network of different services, such as planning, equipment, handling, yard management, warehousing, administration and information, and transportation functions (Rao, Young and Novick 1993).

The *level of control* can be defined as the power of the client company to govern the third party's activities of planning, administrating and implementing the distribution function. The level of control, also, reflects the level of trust and reliability of the company to the third party. In addition, it suggests the level of organisational structure or decentralisation inside the company. The *strategic importance* of the third party represents the degree on which the company depends for strategic survival on the third party activities. The type of partnership can give a better picture of the degree of integration and interdependency of the company upon the third party (Virum 1993).

Consequently, according to the above classification, the five phases of the TPL evolution are (Table 1):

- **Introductory period;** the concept of TPL is in its infancy. Companies do not consider the third party provider unless there is a significant cost advantage or transportation shortage. This period lies from 1900s till late 1950s.
- **Awareness period;** the concept of TPL gains popularity. Companies start to consider the third party alternative as inventory control and cost reduction pressures on the company's competitiveness and profitability increase. However, TPL still raises some concerns about the companies' loss of power and control over logistics.
- **Necessity period;** the concept of the TPL begins to be adopted by the companies. The significant market and legal changes increase the distribution complexities that necessitate the assistance of a third party specialised in distribution. This period lies from mid 1960s till late 1970s.
- **Integration period;** the concept of TPL interests more and more companies. The internationalisation and the augmented complexities of the distribution channels press companies to shift to third party distribution. This period runs from the late 1970s until the late 1980s.
- **Differentiation period;** the concept of TPL is considered as a differentiator in the company's competitive position. The globalisation trend and the increased importance of partnerships and alliances as a way to increase competitiveness necessitate TPL as a vital function to support the companies' mission. This period lies from the late 1980s until the late 1990s.

Table 1: The Five TPL Phases

<i>Phase Period</i>	<i>Phase Name</i>	<i>Characteristic</i>
<i>Early 1900s - Late 1950s</i>	Introductory Period	Single Services
<i>Late 1950s - Mid 1960s</i>	Awareness Period	Separate Services
<i>Mid 1960s - Late 1970s</i>	Necessity Period	Integrated Services
<i>Late 1970s - Late 1980s</i>	Integration Period	Combined Services
<i>Late 1980s - Late 1990s</i>	Differentiation Period	Complex Combined Services

The chronological development of logistics during these five phases was affected by three key factors. These are:

- **World main events;**¹ determine the uncontrollable factors or external boundaries and opportunities affecting the company's logistics strategic planning.
- **Business Strategies;** determine the controllable factors or internal boundaries and strengths.
- **Logistics;** determine the need for TPL through the link of the external pressures to the strategic targets and logistics abilities.

TPL Chronological Development

This section presents a chronological review of the five phases of the TPL evolution, and analyses how the major environmental factors influenced the development process of TPL.

Early 1900s - Late 1950s. Turbulent geopolitical changes modified the whole structure of the socio-economic world society. New key players, Western Europe, US and Russia, appeared in the world business arena and major steps were taken in the technological field. The increased world war activity altered the national boundaries causing severe socio-economic shifts. World War I brought the economic recession of 1930s and encouraged the shift towards heavy industry, with leaders in Great Britain, France and Germany. World War II and the Korean War determined the future of the commercial activity. The sustained economic growth of the 1950s encouraged the commercial flourishing and the international production expansion. Eventually major developments happened in the financial area. The Bretton Woods agreement and the establishment of the World Bank and International Monetary Fund (IMF) facilitated trade and promoted exchange rate stability and international monetary co-operation. Inevitably, the strategic focus of the companies shifted towards budgetary planning and control (Grant 1995). Influenced by the socio-economic changes, the new management thinking is in the relation of strategy and structure as an important factor for company's efficiency and the need to apply a resource base strategy and performance paradigm. These movements brought the rise of larger organisations and the need for contract management. These increased the demands on distribution movement and delivery response in order to satisfy the mass production and retailing demand. Thus the logistics trends changed from the simple movement of goods to physical distribution as a separate function (McKibbin 1987).

Even as early as 1900's, logistics was considered as a tool of marketing (Weld 1916) and a subset (Clark 1922), while the first formal definition was given in 1927 (Borsodi 1927: 19). Company logistics attitudes focused on the efficiency of physical distribution from the activities of transport, storage, inventory control, order processing and packaging. In other words the development of the physical distribution concept is considered as an "emerging business issue" and began to attract strategic interest (Shaw 1916) and created the total cost concept of logistics (Lewis 1956). Thus the world changes and the strategic movements for cost efficiency stressed the importance of logistics through transportation efficiency. However the ownership and maintenance costs for the means of transportation increased as the trade activity increased too. Thus companies had to start considering the alternative of contract haulage. This is the introduction period for the TPL concept in the company's strategy. However the providers held full operational control and their services were restricted to the provision of transportation services. The technological innovations of this period in manufacturing, vehicle and transportation network played a catalytic role in the TPL development, as the movement of goods activity increased significantly. The general management attitude does not consider TPL's contribution to the company's profitability unless there is a transportation shortage or cost advancement.

¹ The analysis of the world main events is based on: Stearns, P.N. (1993) *The Industrial Revolution in World History*, Westview Press.

Late 1950s - Mid 1960s. The most important geopolitical change of this period is the exploitation of the Pacific Rim as a result of the Asian Cold War. For this period the key players include North America and Western Europe. The continuous economic growth increased consumerism and sequentially the competition. The internationalisation of the market and search for cost efficient suppliers necessitated a changed strategy. Companies shifted towards more modernisation and invested in technological innovation, such as computers and automated production, to support their future growth. Thus the new strategic approach focused on long term planning and prescriptive corporate strategy, operationalisation and decentralisation (Lynch 1997: 39-44). At that time Peter Drucker describes physical distribution as the “management dark continent” and raised awareness of the logistics function. Hence, there is an increasing interest from the trade associations, companies and academia¹ towards the logistics function. The new logistics trends are the integrated logistics management (ILM) and the recognition of the significant differences between in-bound and out-bound logistics. Companies focused on physical distribution as a consolidation function for operational efficiency. However the operational efficiency is related to the TPL provider (*Physical Distribution Forum* 1972). The rationale behind this is that the market growth in relation to the internal capacity shortages, capital and inventory control, and total cost trend, made it impossible for companies to be responsible for the transportation or warehousing ownership, maintenance, planning and control, with the result of a shift to outsourcing. Thus TPL started to stimulate company interest towards logistics outsourcing benefits.

Mid 1960s - Late 1970s. This period is characterised by major political, legal and financial changes. The key players are the US, Western Europe, Asia and Russia. The legal changes involve continuous transport deregulation which accelerated trade activity. In addition the oil crisis of the late 1960s brought major financial and business changes. The United States took the dollar out of the gold standard, inflation soared, there was investment suppression, unemployment rates were alarming, and there was price inflation. Furthermore, Singapore & Hong Kong gained advancements from the British military & economic investment, South Africa generated substantial earnings & investment from Western economies, exports increased in the Pacific Rim, growth became more cyclical with another oil price shock, expansion of the industrial economies, Korean industrial growth matched with Japan, and finally Soviet Union & East European nations have complete industrial economies. As a result, companies adopted an international thrust that modified the traditional management to a modern one. From a strategic point of view, companies applied corporate strategy, portfolio planning and scenario building. That, in combination with the revolutionary changes in technology (manufacturing, automation, etc.), IT, and escalating logistics costs concentrated the attention of the companies even more on logistics. Physical distribution started to be considered as a strategic alternative that could help to manipulate the economic uncertainties and contribute to the sales growth, and reduce the energy and transportation costs (Anderson 1985). Hence, companies were interested in the creation of ILM to assist the total corporate function in improving company’s marketability. The logic is to improve manufacturing, marketing and financial results (Stearns 1993: 3) through the increase of customer satisfaction. In order to reduce the capital shortages, cost fluctuations and inventory (Cavinato 1984) the concept of “make or buy” or sub-contract distribution is considered (Christopher, Walters, and Wills 1978). The TPL services gradually increased in size, number, type of services and territorial coverage. Furthermore, the TPL started to be considered as part of physical distribution and the make and sell function. The companies perceived the TPL as an alternative to improve the distribution operations, cost effectiveness and achieve optimal cost and service situation (Fielding 1974).

Late 1970s - Late 1980s. The main characteristic of this period is internationalisation followed by continuous legal and economic adjustments. There was exploitation of the rest of the Pacific Rim and Australia for cheaper labour and resources. Thus the non-industrialised areas showed impressive growth. For instance, Brazil became the industrial leader of Latin America and the Far East shows global development, while social mobility increases. Furthermore, Soviet Union showed impressive growth, and there was an increase in the communication, financial services, management, advertising, professional and technical services. On the other hand, the strategic focus is on the analysis of the industry and competition. Thus, there is a major strategic emphasis on the competitive aspects of formal corporate strategy and integration processes. Thus, companies began to look at logistics systems as a potential source of competitive advantage and how to get leverage from it (Shapiro 1984). Sharman (1984) emphasised the need to rediscover logistics, as a result of the “shrinking of product life cycles, proliferating product lines, shifting distribution chains, and changing technology” (through

¹ The first logistics journals and textbooks were came out this period: *Transportation Journal*, Vol. 1, No. 1, 1961; *Logistics and Transportation Review*, Vol. 1, No. 1, 1964; Heskett, J.L., Heskett, J.L., Glaskowsky, N.A. and Ivie, R.M. (1964) *Business Logistics*, New York: Ronald Press; Smykay, E.W., Bowersox, D.L. and Mossman, F.H. (1961) *Physical Distribution Management*, New York: Macmillan.

the development of computer data handling). The deregulation, intermodalism, shipment control, trade policies (Davis 1987) increased the complexity of the trade and distribution channels. In addition the improvement in telecommunications and computers improved the efficiency and the control of the logistics function, allowing the developing of the distribution function through complex global channels. The logistics concept is spread throughout the management strategies and there is a strong marketing and logistics relationship as logistics becomes the way of achieving better customer satisfaction. Thus the new logistics trends focus on the international, and reverse logistics (Gattorna and Day 1986). As a sequence the TPL providers are perceived as profit centres and differentiators as they contribute to better logistical operations. The rationale behind the TPL expansion is the business expansion that accompanied the increased complexity of the distribution channels, high export activity, technological advances, legal changes and globalisation trend (Buck 1988). The TPL growth plays an important role in the strategic management, and contributes to service and cost efficiency. Finally, it attracts the interest of academia (Wilson and Fathors 1989). The TPL is considered as a differentiator from the companies and not merely a need any more.

Late 1980s - Late 1990s. This period is characterised by global activity, major legal changes and modifications in the trade and political blocks'. The legal changes involve the GATT expansion to the commercial services, the INCOTERMS revision of 1990 (*INCOTERMS* 1990), and the consolidation and development of trading blocks. An example is the collapse of the Eastern European controlled economies and the creation of a new trade block. The main economic events (Lynch 1997) that took place in this period were the currency problem in Japan and the United States' pulling out of recession. In addition there is the rise of highly competitive and cheap labour economies of Far Eastern countries (Singapore and Malaysia) in relation to the establishment of the global corporations. The dominant themes in company's strategic agendas are the quest for competitive advantage and the resource based view for core competencies. Thus the new logistics trends are towards the global logistics with emphases in the reverse and environmental logistics through the integrated material management (Busch 1988). The application of expert systems encourages the expansion of the logistics concept to the profitability contribution to the company (Spah and Novack 1995). The marriage between marketing and logistics gains more and more importance, as a more integrated relationship between marketing and logistics for increased profit was emphasised (Lambert and Cook 1990). Thus the new trends for logistics management are global logistics, contract logistics or logistics partnerships, marketing logistics "reliability - responsiveness - innovation" (Andraski, Novack 1996), long term channel relationships (Geessenheimer and Robicheaux 1996), and contract manufacturing (Crainic and Dejax 1989). Thus the TPL is now considered to bring to the company economic, management and strategic advantages (Aester 1993). The TPL services are continuously increasing in size and range of services. The supply is more than the company demand and the first signs of the intense competition among TPL appeared. The improvement and the variety of the services they provide contribute significantly to the company's strategic planning and implementation as the world trade activity is at its peak. The distribution channels are becoming more and more complicated as the pressures from increased competition, international supply and distribution networks, corporate restructuring and high levels of expectation increased (Sheffi 1990).

Discussion

The above analysis has shown the parallel evolution of TPL and the main factors affecting its development. Figure 1¹ visualises the phases of their growth. There are three main observations to be made:

- TPL evolution lags behind the strategic and logistics development as the organisational structure becomes more complicated;
- the TPL evolution follows the logistics process of development;
- there is a logical sequence of events during the TPL evolution.

As the external environment changes continuously new boundaries and opportunities appear. Figure 1 shows that the strategic focus (Grant 1997: 17) changed from financial control through operating budgets to planning growth, portfolio planning, choice of industries, markets & segments and positioning within them, and sources of competitive advantage within the firm. Simultaneously, the logistics thought modified from market to segmented, integrated, customer, and differentiation focus (Kent and Flint 1997: 15-29). Thus when competitive advantage becomes the main strategic theme in the company's planning then logistics is perceived as a differentiator in order to satisfy the strategic demands. At the same time TPL evolution follows as an outsourcing of combined services, as the distribution channels become more complicated.

¹ The strategic evolution is adapted from Grant (1995). The logistics evolution is adapted from Kent and Flint (1997). The time phases have been modified to fit the five phases of the TPL development.

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