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## Outline of the Phenomenon of Commodification in Transport

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**Abstract:**

**Purpose:** An attempt to identify and describe the phenomenon of commodification in transport and to develop mechanisms that can help solve contemporary dilemmas of transport companies.

**Design/Methodology/Approach:** One of the determinants of the changing economic reality, including supply chains, is the increasing phenomenon of commodification, involving, inter alia, on the disappearance of differences between brands to such an extent that the only factor determining the choice of a given product or service is price. This raises the question: does commodification also occur in transport? The search for an answer to this question became an impulse to undertake research on the identification and description of the phenomenon of commodification in transport and the development of mechanisms that may help in solving the contemporary dilemmas of transport companies that have to operate in the conditions of intense market competition.

**Findings:** the identified and described phenomenon of commodification in transport raises the awareness of transport companies in the aspect of the impermanence of their competitive advantages. However, this approach may not be sufficient. Therefore, the transport company should additionally take into account the mechanism of strengthening competitive advantages developed in the second part of the chapter, which takes into account: the key success factors, logistic competences, transport strategies and the characteristics of transport services for the basic strategies of supply chains.

**Originality/Value:** An outline of the phenomenon of commodification in transport and of mechanisms that can help solve contemporary dilemmas of transport companies.

**Keywords:** Transport, commodification, competitive advantage.

**JEL codes:** M2, D4, R4.

**Paper Type:** Research study.

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## 1. Introduction

The natural feature of supply chains is undoubtedly the spatial dispersion of their individual links. Therefore, the efficient and effective functioning of supply chains, as well as their competitiveness, to a large extent also depend on transport<sup>2</sup>, the main function of which is the movement of goods (loads) from the point of shipment to the point of receipt between the links of a given supply chain. From an economic point of view, this process is often referred to as the process of spatio-temporal transformation of goods (loads), as it adds value to products in the form of the usefulness of place and time (Kauf and Tuczak, 2015). And the need to transport goods (loads) is a derivative of the demand for these goods. Such subordination of transport to individual logistic subsystems means that transport is an integral part of the logistic concept of almost every supply chain (Szpon, Dembińska-Cyran and Wiktorowska-Jasik, 2005).

Bearing in mind that currently the competition between transport companies largely relates to rivalry and exerting competitive pressure, and the price when choosing transport services is important, although it is not a key factor when choosing a carrier by the client (Aniśkiewicz, 2019).

It should be emphasized that the presented considerations are only the author's reflections on the reference of the phenomenon of commodification to transport, which may take place in a situation of intensification of intense market competition between carriers. Therefore, apart from referring the phenomenon of commodification to transport, the key part of the chapter are the mechanisms developed that can solve the contemporary dilemmas of transport companies.

## 2. The Phenomenon of Commodification<sup>3</sup>

As already suggested in the introduction, the presented considerations are only the author's reflections on the reference of the phenomenon of commodification to transport. Phenomena which, in relation to transport, consist in, among other things, the disappearance of differences between the offers of carriers to such an extent that the only factor determining the choice of a given transport service is only the price. This mechanism inevitably leads to the disturbance of the market balance and the destruction of even short-term competitive advantages, which, as we know, may be reflected in at least one attribute of a given transport service, which is the key criterion for its purchase.

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<sup>2</sup>In this chapter, transport is considered from the external perspective of its scope of operation, i.e. between the company and its suppliers and recipients. It should be noted that the adopted perspective does not reject the important role of internal transport, the so-called in-house or close to the functioning of the supply chain, only sets the boundaries of the considerations.

<sup>3</sup>The content of this subsection is taken from the item (Kopeć, 2018, pp. 107-108), which was prepared on the basis of the content contained in the article (D'Aveni 2010, pp. 12-15).

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Therefore, based on the observations carried out by Richard D'Aveni (2010), three most common models of the formation of the commodification trap can be distinguished, the descriptions of which are related to transport:

1. Model of deterioration in quality (deterioration trap).
2. Model of product multiplication (proliferation trap).
3. Escalation model (escalation trap).

The deterioration trap model - occurs when carriers offering transport services of lower quality and lower prices enter the market. As a result, other carriers, wishing to stay on the market, had to lower their prices at the expense of margins, which inevitably leads to a decline in their profitability, or possibly keep prices and lose orders. Model of proliferation trap - occurs when carriers appear on the market offering transport services slightly different from those already offered on the market. These services seemingly create a new combination of value and price, among others by adding or changing some detail of the offer, and then offered by competitors of a given transport service as something new, improved, but not always at a lower price.

Escalation trap model - occurs when transport services appear on the market that are improvements to the already existing ones, the so-called "Original" services offered by competitors at ever lower prices.

To illustrate the mechanisms of how transport companies should function in order to avoid the described models of commodification traps, we will use simple examples from the field of IT systems, analyzed from the perspective of Richard D'Aveni (2010). It is worth mentioning that the presented examples serve the same market sector.

Transport company "A" has made available to its customers a selected module of its IT Track and Trace system, thus predicting the model of product multiplication. On the other hand, transport company 'B' made available to its customers the 'original' Track& Trace platform and other modules, such as individual planning of delivery parameters. Hence, it can be concluded that company "B" envisaged an escalation model, albeit not in its pure form, as it did not lower its prices. However, being aware that as a result of competitive struggle the competition may start to imitate its actions, I suggest that company "B" controls both the actions and reactions of other market participants. At the same time, ahead of their activities, among other things, by creating new functionalities of the platform. Lowering prices would create an escalation trap.

It is known that competition between transport companies was, is and will always be, while in conditions of free competition it should be fair, respecting good manners and the right interests of entrepreneurs and consumers, as well as not violating human rights and freedoms (Journal of Laws No. 2021 item 162, art. 9).

The case studies described clearly show the fact that the competition between transport companies largely benefit customers, as it makes the transport services they offer are of appropriate quality and at a lower price or at the same price. In addition, the market is developing and transport efficiency is increasing.

Nevertheless, the awareness of the "right" of the impermanence of advantages may save carriers from a devastating price war. However, when one of the described models of the formation of the commodification trap appears on the horizon, it is important to approach the fight strategically. Especially when the mechanism proposed in the next section is taken into account, which can help to strengthen the logistic potential of transport companies.

### **3. Mechanisms of strengthening competitive advantages**

Apart from identifying the phenomenon of commodification in transport, attention should be paid to mechanisms that can help in solving contemporary dilemmas of transport companies. So that they can fully use their logistic potential and build the so-called "Defensive position", which will be the source of their competitive advantage. Unfortunately, in the economic reality there are various types of supply chains that have their subtle variations (Gattorna, 2013). Therefore, the presented considerations were made in relation to the two most common types of supply chains, i.e. an effective and flexible supply chain. Because often transport systems are created especially for specific supply chains or even specific recipients who operate within them (Jadczyk, 2019).

Bearing in mind that there are so many entities operating within a given supply chain that could be proposed ways to strengthen their competitive advantages. However, treating the supply chain as a whole, a comparison was made of the similarities and differences in both the methods and conditions of gaining a competitive advantage between an efficient and flexible supply chain.

On the basis of which it was possible to distinguish their hybrid supply chain (the shaded part of Table 1), which combines the decisive factors of the competitive advantages of both these chains. Its decisive success factor is the total delivery time. On the other hand, after combining the success factors of an effective, flexible and hybrid supply chain, the determinants of the success of the strategy of combating commodification were identified. These are: cost, availability and total delivery time (Kopeć, 2018).

However, in order to take full advantage of the logistics potential of transport companies, logistics competences are essential, as they result from the integration and coordination of resources and logistics capabilities. Logistics competences as one of the types of competences possessed by transport companies, and not only, that relate to processes and activities related to the management of the flow of goods and the accompanying information on the scale of the enterprise and

the entire supply chain. The condition for the education and development of logistics competences is the involvement of adequate logistics resources, their effective configuration and operation (Matwiejczuk, 2014). Bearing in mind that the resources and logistic capabilities possessed by transport companies are characterized by limitations, e.g., means of transport are characterized by a limited scope of cargo space and capacity, or limited availability in time and space.

It is important that entities offering transport services do not limit themselves to cooperation with other carriers, as well as cooperation with direct competitors, because only effective configuration and use of logistic resources is associated with better use of the logistic potential, which, as is known, allows achieving and maintaining a competitive advantage (in the discussed aspect) over non-cooperating competitors.

Choosing a strategy, i.e., a method of determining how the transport company intends to achieve its goals by serving a given type of supply chain. It should start with the recognition of the type of the operated supply chain, as well as with a comprehensive diagnosis of the environment, primarily in the area of the market within which the given type of supply chain operates, buyers of transport services and competitors. Paying special attention to the essential features that the offered transport service should have in order to create real value for the customer. Because an appropriate level of service guarantees customer satisfaction, while improper delivery of a transport service directly affects the functioning of the entire supply chain.

Therefore, the selection of appropriate features of the offered transport service should depend on the results of the identification carried out and allow for their various configurations, however, maintaining their internal consistency with other functional strategies, both of the company and the operated supply chain.

Thus, it is essential to list the key success factors, logistics competencies, transport strategies and transport service characteristics for the basic supply chain strategies in Table 1. Because neither transport companies nor their clients can afford not to define the market and then the segment in which they want to earn or spend money (Coyle, Bardi and Langley, 2002).

### **3. Conclusion**

To sum up, it should be stated that the phenomenon of commodification in transport, identified and described in the first part of this chapter, raises the awareness of transport enterprises in the aspect of the impermanence of their competitive advantages. In addition, knowledge of the commodity trap models (i.e., the model of deterioration in quality, the model of product multiplication, or the escalation model) is additionally valuable when the carrier gives them an appropriate weight and in an appropriate manner uses them to their advantage.

**Table 1.** Summary of key success factors, logistics competences, transport strategies and transport service properties for basic supply chain strategies

Supply Chain	Conditions for success	The decisive factor	Logistics competences	Transport strategy	Selected properties of the transport service
Effective	quality	cost	ability to adapt to market requirements while striving to optimize costs and the level of customer service	the choice of type and means of transport is largely cost-driven	demand: predictable
	total delivery time				subject of transport: bulk, loads mostly standardized
	availability (reliability)				regularity, punctuality
Flexible	quality	availability (reliability)	the ability to adapt to customer requirements and respond to their changes	the choice is largely dictated by the availability (reliability) of the type and means of transport	frequency, rhythm
	cost				demand: unpredictable
	total delivery time				subject of transport: diversified, loads mostly individualized
Hybrid (effective-flexible)	quality	total delivery time	they exist in different configurations depending on the market they serve	the choice of the type and means of transport is largely made on the basis of the total delivery times	speed
	total delivery time				flexibility
	availability (reliability)				they exist in different configurations depending on the market they serve

**Source:** Own study based on (Ciesielski and Długosz, 2010; Kopeć, 2018; Matwiejczuk, 2014 oraz Szymanowski 2010).

However, this approach may not be sufficient. Therefore, the transport company should additionally take into account the mechanism of strengthening competitive advantages developed in the second part of the chapter, which takes into account: the key success factors, logistic competences, transport strategies and the characteristics of transport services for the basic strategies of supply chains.

At the same time, it should be remembered that an "attack" on someone else's competitive advantage means the need to engage additional resources, while the probability of retaliation is the higher the greater the attacked transport company.

Therefore, special attention should be paid to intangible resources that are difficult to copy, such as knowledge, organizational culture, reputation or networks of relations (Głuszek, 2004).

The presented proposed mechanisms require further research, contributing not only to

the exploration of the problem of commodification in transport itself, but also to relate it to a wider extent to other types of the supply chain.

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