

ORGANIZATION OF SUPPLY CHAIN FOR INTERNATIONAL CONSIGNMENTS OF LTL CARRIER ON THE MARKET

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Abstract

The purpose of this article is to bring solutions used in the forwarding companies, within the framework of the construction of international supply chains. This is an extremely important aspect which is already at the stage of creating a strategy for the development of the portfolio of services provided by the shipping company. Discusses system forwarding transport process, what they use and what services they offer. The last part of the article shows a comparison of the two models used to carry out the international transport of general cargo (LTL)-bilateral cooperation between the two freight forwarding companies of two countries and the international distribution system that connects a number of partners. Shown here are the pros and cons of both solutions. However, they are pretty much balanced, therefore, shows both solutions, but the final choice of one of them may be subject to several very individual factors to be taken into account by the managers making the choice.

Key words pickup and delivery models, operation strategies, logistic networks, forwarding, international supply chain management

1. INTRODUCTION

The themes of the forwarding company is closely linked to the process of organization of the supply chain, which is an ordered scheme of the actions taken in order to provide the product in place and time, which corresponds to the needs of the buyers. The supply chain is also characterized as interconnection between suppliers and consumers, on the basis of processes and activities, which, as the final product to give services to clients.(Kot, Starostka – Patyk, Krzywda, 2009)

The concept of the supply chain organization, which is affiliated with the international means of transport can be described as a collection of actions that are related to the overcoming of differences (temporal and spatial), and which are on the line of production and consumption. (Kramer, 2004)

Similarly, referred to it as an activity consisting in the sale and delivery of the product obtained the final consumer, in accordance with the previously defined needs or desired quantity, at the right time and place for it. (Grabarski, Rutkowski, Wrzosek, 2001)

2. SOLUTIONS OF THE INTERNATIONAL SUPPLY CHAIN

Supply chain cargo consignments in the international distribution system, in the context of the agent handling is done in two ways. Forwarders to begin construction of the product of the international

General cargo face a choice of whether to become a participant in one of the available distribution systems or establish direct cooperation with similar partner – shipping company in the country. To make a choice between should become, therefore, the way in which the company wants to solve the problem—there are two ways to specify them: as "upward causation—everything" (separation problem on its actual smaller components) or "holistic" (where the links between the components of the problem and looking for a holistic solution for him). (Kot, Starostka – Patyk, Krzywda, 2009)

Such activities are aimed at building an international distribution channel, which is understood as a system dependent companies that deal with the physical flow of the products from their manufacture to the final client, as well as streams of payments, property rights, information and promotion. (Duraj, 2004)

Focusing only on the line of organizing transport FTL and PTL, for example, does not give an adequate level of profitability services. The relationship is also closely linked with marketing concept, which must be targeted at market orientation of the company. Overriding value in that case must be customer starts and their needs. Developing a portfolio of product in this field is an increase to meet the needs of the customer at an angle of the place, time and quality of service. (Szymczak, 2000)

Also the fragmentation of business on many smaller clients may produce better liquidity, even if one of the operators will be late with a payment for freight, which on the local market for freight transport services is quite widespread. Such a system is characterized by great potential for their own, which gives opportunities to perform tasks in his framework, and consists at him five main factors, namely: technical, technological, the socio-economic-organizational and financial information.(Demińska – Cyran, Jedliński, Milewska, 2001)

3. THE DETERMINANTS OF THE DEVELOPMENT OF FREIGHT FORWARDING COMPANIES

By analyzing the problem in example: XYZ Company offers shipping services FTL and PTL. However, the market is moving constantly towards fragmentation. Companies do not want to build stocks on their warehouses, however, large quantities of products or semi-finished products and prefer to receive smaller quantity at increased frequency in spite of higher costs of such services. It also increasingly spread the idea of Just-in-Time supply,(Dima, Grabara, Pachura, 2010) that do not focus on full loads. Global business strategy for companies, such as ranges as well: the reduction of CO2 emissions, reducing the amount of energy needed to transport, and to reduce the volume of traffic in cities, promotes the development of the product general cargo transport. (Popa, 2011)

If company is not going to be determined to develop cooperation in this field, can bounce on it negatively in terms of economic performance. This is due to too high or too low levels of customer service. In the case where the level of customer support is higher than its financial capacity, the company will suffer significant losses associated with rotation. If, however, it will not guarantee the quality of services to field competitive companies can.(Kempny, 2001) Business strategies related to the long-term maintenance of key customers are geared more towards the reduction of operating costs than on an increase in the price level of services. For those companies to service clients—decision-making forwarding still a key role is played by the rates on the service even if the market position of the supplier services.(Kot, 2010) Thus, through marketing approach – you can look at the wider logistic market and found common benefits by several partners within a single distribution system. (Ciesielski, 2006) Attention should be paid also to cover the cost of logistics. Continuous examination of the level of costs is extremely important, especially in terms of logistics and forwarding companies can not forget in any way about them as is the case with the level of logistical costs in any other undertaking.(Man, Nowicka – Skowron, 2010)

3.1 The international distribution system

In Europe there are more than a dozen international distribution systems. Among them we can highlight:

- ONLINE Systemlogistik GmbH,
- System Plus Logistic Service GmbH & Co. KG,
- IDS Logistik GmbH
- The Pall-Ex Group
- TPN – The Pallet Network

They all have similar features, as well as the rules for participation in these works. The principle of their operation is to create one central HUB for cross-dock, whose office should be located in the central part of Europe, so as to guarantee the shortest commute times from all the neighboring countries, which are members of the system. Having prepared for operations in the system overnight HUB, the company recruits participating, on the basis of quazi franchises.

3.2 Direct cooperation

Another commonly used solution is to establish by shipping direct cooperation with another company in the expedition of the State with which the company wants to start exchange of goods transport. Bilateral cooperation-how is determined the market cooperation, works in a very similar way to the system of international distribution, however, combines two companies mentioned only (one from each Member State); or several companies from one Member State to the one from the other. Such a combination between service providers, a kind of competitive, gives a similar effect as the service provider of the connection with the client. The merging companies must pay attention to the proper preparation of the project, its subsequent control and constantly review the progress in mutual learning processes.(Popa, 2010)

The introduction of solutions to everyday connection can be used in the case of guarantees for the satisfactory or pipe. Currently, transport policy is created in a rather innovative way in Central and Eastern Europe, particularly as a result of the enlargement of the European Union, and to facilitate the exchange of goods. See also the significant impact of technological advances on the transport sector, which gives you the ability to use the latest technology (even) in the context of the development of services offered. (Kot, 2008)

4. RESEARCH ANALYSIS OF REVENUE

To analyze the case, comparing both solutions for revenue, cost and profit data on actual dates of company SwissLogis Ltd for 2012, there is need to look at in detail on the number of items handled by the company during the period from March to December of 2012. The data presented in Table 1 show the quantities of items in terms of monthly, as well as the sum of revenues, costs and the income generated from the sale of a product of international transport general cargo on the Poland-Italy. The company has used during this period only from bilateral cooperation arrangements with the Italian partner operators.

Table 1. Number of shipments handled in the framework of the international distribution by SwissLogis Ltd in period for from 03.2012 to 12.2012

| MOUNTH | IV | V | VI | VII | VIII | IX | X | XI | XII | TOTAL |
|--------------------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|----------|
| NUMBER OF SHIPMENTS | 8 | 16 | 32 | 45 | 29 | 43 | 56 | 48 | 34 | 311 |
| REVENUE(TOTAL EUR) | 2596,8 | 4021,4 | 11334,4 | 14341,5 | 8804,4 | 14426,5 | 16732,8 | 15451,2 | 10482,2 | 98191,2 |
| COST (TOTAL EUR) | 1388,48 | 2795,69 | 5835,52 | 7733,25 | 4925,36 | 7678,08 | 10092,88 | 8200,8 | 5949,32 | 54599,38 |
| GROSS PROFIT (TOTAL EUR) | 1208,32 | 1225,71 | 5498,88 | 6608,25 | 3879,04 | 6748,42 | 6639,92 | 7250,4 | 4532,88 | 43591,82 |

Source: Own elaboration based on information obtained from the shipping company SwissLogis Ltd, 2013

The data presented in Table 1 indicate the tendency of the development of the company. Since March the amount increased gradually supported. Growth was reported for July. In August, followed by a decrease (due to economic circumstances is a period of vacation home in Italy - the parable of the authors) to again increase recorded in September and October and following slight declines by the end of the year (November and December). The company in this period for recorded income from sales of this product of EUR 43591,82.

Table 2. Illustrative data on consignments accepted into the detailed analysis in the cost comparison of both solutions.

| SENDER | RECIVER | From [post code – first part] | Where [post code – first part] | Income [EUR] | Costs – bilateralcooperation [EUR] | Costs – distribution system [EUR] |
|---------|---------|-------------------------------|--------------------------------|--------------|------------------------------------|-----------------------------------|
| REG | SPO | PL30 | IT81 | 116,9 | 83,50 | 107,55 |
| BEL | TIR | PL30 | IT50 | 217,1 | 155,07 | 168,97 |
| REG | SPO | PL30 | IT81 | 116,9 | 83,50 | 91,89 |
| ZAP | CED | PL35 | IT20 | 329 | 235,00 | 288,77 |
| CHR | PAN | PL26 | IT90 | 287 | 195,00 | 245,30 |
| ELP | REC | PL44 | IT30 | 217,1 | 155,07 | 165,74 |
| CHR | MES | PL26 | IT00 | 254,7 | 176,40 | 182,30 |
| FAS | CAT | PL40 | IT23 | 36,4 | 26,00 | 34,60 |
| ELP | NES | PL44 | IT06 | 312,3 | 223,07 | 237,21 |
| CHR | PAN | PL26 | IT90 | 652,2 | 405,60 | 438,06 |
| LES | PAV | PL63 | IT31 | 72 | 50,50 | 60,73 |
| MOL | DEL | PL83 | IT10 | 314,3 | 224,50 | 248,63 |
| AMK | PIZ | PL96 | IT55 | 168,6 | 120,43 | 145,69 |
| POL | BES | PL30 | IT20 | 43,5 | 31,07 | 43,97 |
| BEA | SEA | PL21 | IT50 | 231,2 | 165,14 | 189,60 |
| CHR | PAN | PL26 | IT90 | 652,2 | 465,83 | 552,26 |
| AVERAGE | | | | 251,34 | 174,73 | 200,08 |

Source: Own elaboration based on information obtained from the shipping company SwissLogis Ltd, 2013

Table 2 shows the 16 representative cases – consignments which have been handled by the company SwissLogis Ltd in month of may 2012. Looking at the coverage of the whole year to be tempted by an analysis of the income projections in terms of the whole year. Such a calculation can be done by the average business expenses for one shipment, calculated on the basis of representative 16 consignments presented in Table 2 in comparison with actual income. A detailed calculation of the forecast data presented in Table 3.

Table 3. In terms of income forecast throughout the year on the basis of a system of international distribution.

| MOUNTH | IV | V | VI | VII | VIII | IX | X | XI | XII | TOTAL |
|--------------------------|--------|--------|---------|---------|--------|---------|---------|---------|---------|---------|
| NUMBER OF SHIPMENTS | 8 | 16 | 32 | 45 | 29 | 43 | 56 | 48 | 34 | 311 |
| REVENUE(TOTAL EUR) | 2596,8 | 4021,4 | 11334,4 | 14341,5 | 8804,4 | 14426,5 | 16732,8 | 15451,2 | 10482,2 | 98191,2 |
| COST (TOTAL EUR) | 1606,4 | 3212,8 | 6425,6 | 9036 | 5823,2 | 8634,4 | 11244,8 | 9638,4 | 6827,2 | 62448,8 |
| GROSS PROFIT (TOTAL EUR) | 990,4 | 808,6 | 4908,8 | 5305,5 | 2981,2 | 5792,1 | 5488 | 5812,8 | 3655 | 35742,4 |

Source: Own elaboration based on information obtained from the shipping company SwissLogis Ltd, 2013

Projected income, which would be developed in the case of participation in the international distribution system in accordance with the data in Table 3 would be EUR 35742,40. To compare and choose the preferable solution for the company, as well as during the actual case to evaluate whether the company has taken the right decision in terms of the selection there is need to compare monthly income and annual for both variants. It is understood that if the income is generated in the effort smaller compared with the not worst of customer satisfaction, and maintaining the quality of the service, this solution should be considered. In addition to the increase of income, it should be also keep in mind that the same increase circulation company generates additional benefits. Even increasing the level of cash in circulation.(Ślusarczyk, Kot, 2012)The compilation is presented in Table 4.

Table 4. A comparison of the actual income from prepared forecasts.

| MOUNTH | IV | V | VI | VII | VIII | IX | X | XI | XII | TOTAL |
|--------------------------|---------|---------|---------|----------|---------|---------|----------|---------|---------|----------|
| NUMBER OF SHIPMENTS | 8 | 16 | 32 | 45 | 29 | 43 | 56 | 48 | 34 | 311 |
| REVENUE(TOTAL EUR) | 1208,32 | 1225,71 | 5498,88 | 6608,25 | 3879,04 | 6748,42 | 6639,92 | 7250,4 | 4532,88 | 43591,82 |
| COST (TOTAL EUR) | 990,4 | 808,6 | 4908,8 | 5305,5 | 2981,2 | 5792,1 | 5488 | 5812,8 | 3655 | 35742,4 |
| GROSS PROFIT (TOTAL EUR) | -217,92 | -417,11 | -590,08 | -1302,75 | -897,84 | -956,32 | -1151,92 | -1437,6 | -877,88 | -7849,42 |

Source: Own elaboration based on information obtained from the shipping company SwissLogis Ltd, 2013

5. ANALYSIS SUMMARY

The company opting to participate in the international distribution system would provide less income on an annual basis about EUR 7849,42 than using the bilateral cooperation arrangements with other forwarding. Analyzed the statement is confirmed by the quantitative benefits of bilateral cooperation. Looking at the pros and cons of global both variants of cooperation can, however, see the value added that is not often seen in the table, the digital approach.

Participation in the international distribution system carries many benefits for the partners of the acceding to it, the main ones are:

- Turnkey solutions to calculate shipping prices
- Availability of transport to many countries at the same time
- Joint, mutual responsibility for quality of service

International Distribution System is unfortunately also the drawbacks of participation in it:

- A system of penalties for failure to comply with the terms of the agreement
- The need to fill in the items of the car line
- the cost of entry and participation in the system

Bilateral cooperation gives the company a lot of amenities, but also disadvantages. The most valuable aspects of the application are:

- Easy contact – the immediacy of contact between partners
- Specialization in handling the country concerned
- Ease of settlement-no other intermediaries between partners

Discussed bilateral cooperation, however, also has a few flaws:

- dependence on one supplier of services in the country
- the lack of options for potential development

6. CONCLUSIONS

Shipping if someone want to develop in the direction of LTL freight services international, needs to decide how it wants to participate in this kind of supply chain. These distribution systems, as well as bilateral cooperation on developing capabilities like give company its product portfolio. Both solutions allow to meet the needs of customers forwarding, however, participation in the system allows to enter into supply and load in more countries by an extensive network of partners. Unfortunately, the cost of participation in them and the risk associated with additional costs, as not conducive to the development of the company in the context of strategic planning. Look also here clients of great importance, if the company that so far has not offered LTL transport services, in a short period of time, through the accession to the system, extends their capabilities in many countries, support of the distribution can be badly received. Consumers today increasingly prefer to choose a specialist with an industry, because, despite the slightly higher costs, they can get much better service. Specialization in a given direction of transport by far provides the cooperation between partners. Presented arguments confirm that the better choice is the progressive development and enabling future directions-the import export partner. This form of cooperation also provides greater transparency in the accounts and, with proper choice and efficient operating conditions and reliable contact and information about shipments.

Market leading in the direction of the fragmentation of the loads, it will also create opportunities for continuous product development LTL. Freight forwarding companies that in a professional manner will be provided their services offered to transport general cargo, to become the market leaders for directions, where in addition to a relatively competitive prices will offer very high-quality service. Solution of

distribution systems franchise quazi, should become a kind of complement to LTL freight services and provide support for the pipeline individual clients, and were occasionally pallet consignments, for a relatively low price.

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