

LOGISTICS CUSTOMER SERVICE IN THE PACKAGING INDUSTRY

Krzywda D.*

ABSTRACT: The packaging market is an example of an industrial market with a very high level of competition. Recently there has been a struggle for a competitive advantage based on quality, price and technological innovation. Faced with this situation, some companies in the industry are adopting a customer service logistics strategy as a competitive strategy, described in the literature on the subject and known from business practice. In this paper an attempt was made to examine the effectiveness of this method of achieving competitive advantage in the packaging industry. For this purpose, data obtained from 8 packaging companies applying the strategy known as the strategy of the most important element of customer service were examined. The research was based on interviews with managers of these companies and portfolio analysis. The research confirmed the hypothesis that the most important service element strategy involves the risk of high service costs or low costs with low profits at the same time. As a result, recommendations and conclusions have been formulated for the management of such entities.

Keywords: packaging market, competitive advantage, packaging companies, logistics strategy as a competitive strategy

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Introduction

Over the past decade, the global packaging industry has enjoyed steady growth, driven by shifts in choice of substrates, expansion of new markets, and changing ownership dynamics. Headline changes include increased use of plastics to replace other substrates and accommodate consumers' demand for convenience, the economic boom in China and other emerging regions, and greater industry consolidation and growing private equity ownership. Growth will continue in the decade ahead, but with more pressure and disruptive changes likely (McKinsey & Company, 2019). Packaging industry is one of the key industry in the world, where various industrial stakeholders work together and try to understand the logic of supply-chain networks and value networks of the future (Olsmats, Kaivo-oja, 2014). In this sense, the packaging industry is a network of companies belonging to different industries, linked to each other by customer supplier relationship. The metal, chemical, glass, paper, mechanics and electronics industries all draw a part of their turnover from packaging goods (Cottica, 1994). Due to its wide range and development, the packaging industry is an area of very strong competition. For a long time now, there has been a struggle based on quality, price and innovation.

* **Dariusz Krzywda**, PhD., Czestochowa University of Technology

✉ Corresponding author: dariusz.krzywda@wz.pcz.pl

Faced with this situation, some of the companies in the industry are opting for a customer service logistics strategy as a competitive strategy (Ulewicz, Vaško & Klimecka-Tatar, 2014). This article summarizes the study of the effectiveness of this competitive strategy in the packaging industry.

Literature Review

The packaging market is a complex phenomenon and can be categorised according to many criteria. A wide range of topics can be identified in market research. A great many studies on food packaging are dedicated to food packaging and the latest trends in this field (Kalpana et. al., 2019), including technological issues, the issue of adapting packaging to environmental requirements (Petit et. al., 2019; Bala, 2020; Geueke et. al., 2018). The least well represented topic in packaging market research is business management in the packaging industry and there are not many comprehensive studies on this subject in the literature, although those that exist point to some particularly difficult problems in the industry. Hallberg (2017) argues that in the European packaging industry, product pricing is costly and complex and companies may differ in their ability to implement pricing strategies (Hallberg, 2017). Sadrzadehrafiei et al. (2013) considers implementing ERP in dry food packaging industry Renn (2007) discusses risk perception and Communications in food packaging industry. There is a lack of studies on competitiveness and strategic management in this industry.

Meanwhile, research on business competitiveness and competitive advantage strategies has a rich and long tradition in management science literature. It features numerous concepts of a business's competitive advantage and shows that new concepts are constantly being developed, which is probably a result of the complexity of the nature of such advantage, diversity of its sources and different types of approach to its identification and sizing (Strandskov, 2006). In the traditional approaches, the most common sources of competitive advantage include cost advantage, quality leadership, leadership and the marketing concept of competitiveness. More recent concepts of a company's competitiveness take into account challenges resulting from sudden changes in its environment. Their distinguishing features primarily include innovation, entrepreneurship and the network connections of companies in a given sector (Wang et al., 2011).

One of the most popular concepts of competition is the concept developed by Michael E. Porter, who identified three strategies that can be adopted by an enterprise in order to build a competitive strategy. These are the strategies of differentiation, (qualitative leadership), cost-effectiveness and focus (Porter, 1998). Kotler (1994) has also made a major contribution to the study of competitive strategies, distinguishing between the following types of strategies: leader strategy, contender strategy, follower strategy, niche strategy and alliance strategy. However, there are also other concepts in the literature on the subject. One of them is a concept based on resources and core competencies developed Hamel and

Prahalad (1990). As it is often emphasized, in practice Porter's concepts of competitiveness and core competencies complement each other, because, when combined, they comprehensively characterize the internal aspects of businesses and their environment (Beyer, 2012).

Another concept of competitive advantage is the relational approach, which is based on the assumption that this type of advantage is based on the relations of the company. The source of advantage in this approach is the specialization of the participants in a given network, as well as unique relationships allowing for better use of specific resources of collaborating partners. Another contemporary approach to competitive advantage is the knowledge-based concept, which has its roots in a concept based on resources and core competencies. Knowledge is regarded here as a strategic resource of the company, determining its development, survival and generating a lasting competitive advantage (Bolcas, Ionescu, 2016). In the latest concepts, it is emphasised that the competitiveness of enterprises is determined by their operating capability, their ability to change and their performance (Oláh et al., 2017a, Oláh et al., 2017b). Against such numerous strategies for achieving competitive advantage, the concept of customer service deserves - from the point of view of the objectives of this study - a very special attention. Customer service started to be of interest as early as in the 1980s, when managers pointed out that in the face of growing competition, when many companies offer products and services of similar quality, a perfectly organised customer service can be a distinguishing feature, thanks to which it is possible to win customers and encourage them to continue cooperation (Coyle et al. 1996). It is stressed, however, that customer service is not only an area of interest for marketing specialists, but also for experts in logistics. Logistics can make a big contribution to the achievement of sustained competitive advantage, particularly through the combined impact of improved customer service and lower costs to serve. The contribution that customer service can make to the building of long-term relationships with customers and hence enhanced customer retention is emphasised (Christopher, 2002; Ambriško, Grendel, Lukáč, 2015). A sustainable competitive advantage is based on a combination of efficient and effective logistics operations and well-functioning, adjusted, in-house-developed IT systems. This operational capability is in turn sustained through five dynamic capabilities: managerial knowledge and presence, cross-functional teamwork, control, learning and supply chain relationships (Sandberg, 2011). In this context, there is a gap in research in the field of management of packaging distribution companies. The competitive strategies adopted by these companies based on logistics require verification in the practical field.

Research hypotheses and methodology

The aim of the study was to verify the most important element of customer service as a strategy of achieving a competitive advantage by means of a portfolio analysis. This is one of the varieties of customer service strategy singled out by Kempny

(2001) alongside the low service cost strategy, customer selection strategy, core logistics skills strategy and trade-offs strategy i.e. a group of strategies for achieving competitive advantage through customer service logistics strategies. The strategy of the most important element of customer service is to provide deliveries in the shortest possible time, availability of the product from stock, reliability of deliveries, flexibility, accuracy, completeness, etc. The hypothesis was put forward that a strategy of a key service element could lead to a reduction in the profitability of the customer portfolio and therefore requires constant monitoring and analysis of the profitability of the measures taken.

The subject of the survey were 8 trade enterprises and producers of southern Poland offering auxiliary packaging materials (packaging tapes, polyester tapes, stretch film and packaging accessories), belonging to the group of small and medium enterprises. These companies were selected as research facilities from a larger group of companies offering similar products, but differ from the others in that they follow the same competitive strategy - that of a key customer service component. They are therefore in competition with each other. These are small companies with an average market presence of around 20 years. The customers of the companies are manufacturing companies, various industries located in different parts of Poland, mostly manufacturing companies and companies of different sizes - from large manufacturing plants to small family businesses. Suppliers of the surveyed companies are large companies producing packaging and auxiliary packaging materials of high economic power, both in Poland and in various countries of the European Union (France, Croatia, Turkey, Germany, Spain).

As mentioned above, the strategies of the surveyed companies are based on achieving a competitive advantage due to the extremely efficient logistics service. This strategy in all 8 cases results from unusually intensive competition on the market in the packaging industry. It is very difficult to achieve a competitive advantage here consisting in the advantage in the quality or innovativeness of the product, as there are many importers and producers of packaging and packaging materials on the market, who additionally apply an aggressive pricing policy. Moreover, the demand for packaging materials and auxiliary packaging means is a dependent demand, which means that its size depends on the production volume in the enterprise. The offer of the companies was to be addressed to those customers who do not systematically perform material planning or do not include packaging in material planning or operate in the area of large fluctuations in demand and are not able to forecast demand with sufficient accuracy. Therefore, the advantage of the surveyed companies was to rely on efficient logistic service, i.e. immediate fulfilment of urgent orders, even relatively small ones, with diversified assortment. It would be possible thanks to maintaining appropriate warehouse stocks, which would ensure high availability of products and short lead times, which in turn would be possible through efficient handling of orders, mainly ad hoc, on the phone. According to the data obtained from managers, in practice companies were forced to analyse the value of customers and their profitability. While it was

possible to maximize the value of the company for customers and achieve a high retention rate of customers, it was found that the income was too low. The survey was based primarily on the method of customer profitability analysis, which - in order to triangulate the research - was extended by a qualitative method in the form of in-depth interviews with the management of enterprises (logistics managers or sales departments) and analyses based on the available financial documents. The study was based on an analysis using a customer profitability matrix developed by Christopher and Peck (2003). These authors proposed a matrix of customer profitability, taking into account the costs generated by customers, which is shown in table 1. On the basis of this matrix, a Direct Customer Profitability Index (DCP) was calculated.

Table 1. Customer profitability matrix (Christopher and Peck 2003)

Net sales value for the customer	high	Protection zone	Cost-analysis zone
	low	Build-up zone	Risk zone
		low	high
Service costs			

The build-up zone is created with relatively cheap customers with low net sales value. In their case, the possibility of increasing turnover without a proportionate increase in service costs is considered. Customers in the risk zone should be given special attention in terms of medium- and long-term opportunities to improve sales value or reduce the cost of service, as well as strategic reasons for their maintenance. The cost analysis zone is used to calculate the chances of increasing profitability while reducing the service level and finding new ways of securing orders. Special opportunities are being sought with customers in the protection zone in order to develop relationships so that they do not use the services of new suppliers, as they represent a high value for the company (Christopher, Peck, 2005). In the presented study, due to the fact that these companies operate in the same segment and often fight for the same customers and compete with each other, the data obtained for each of them was included in a single matrix of analysis.

Results and Discussion

The analysis carried out on the basis of the customer's profitability matrix allowed us to locate the company's customers in four fields.

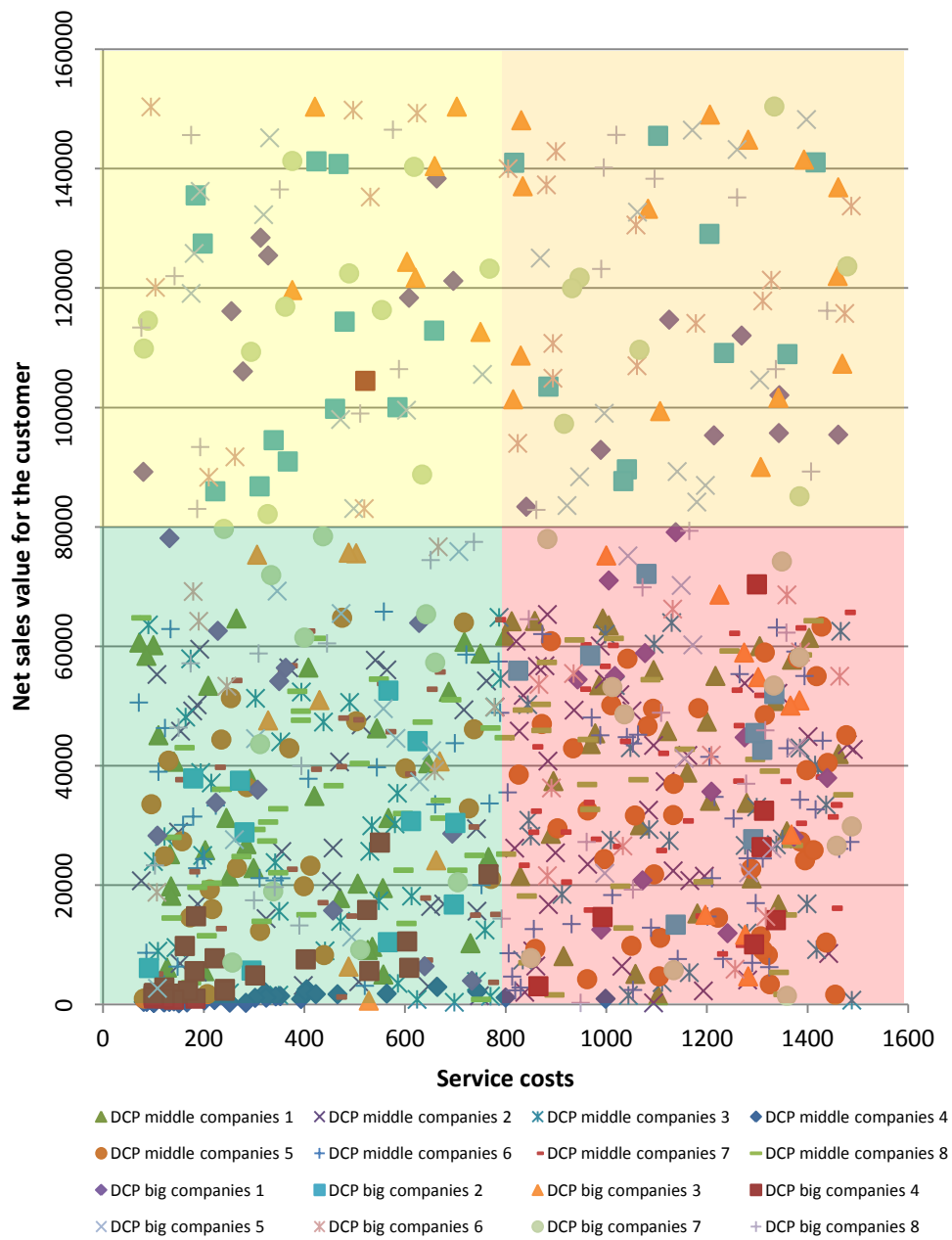


Figure 1. Customer profitability matrix developed for the company under study

In the first part of the analysis two conclusions were drawn. First of all, most of customers of all 8 surveyed companies are located in the "build-up zone" field, which means that these are cheap to service and generate low sales value. Secondly, it was found that the location of customers in the individual fields of the matrix is correlated with the size of the customer. While medium-sized customers are concentrated mainly in the build-up zone and to a smaller degree in the protection zone, large companies are present in all four fields of the matrix, although the largest concentration occurs, as in the case of medium-sized customers, in the build-up zone. This means that medium-sized companies that are the customers of the surveyed enterprises mostly generate very low service costs and, at the same time, small or average profits at the most. This results from the strategy adopted by the companies, which is based on the availability and reliability of delivery, flexibility, etc. In practice, however, it means that companies act as an "emergency service", which at any time carries out small, sudden orders by delivering goods to the customer at any time when required. Such actions allow to retain many regular customers, but in these relations, the customers, being certain to have their order processed and delivered, demonstrate a rather little degree of discipline. Companies take orders by phone and respond quickly to customer needs, often delivering small volumes of low-value goods to customers spread across different regions. This was the idea behind the strategy and the advantage of companies that, without formalising their ordering methods, had to meet urgent needs without unnecessary formalities. Direct contact with concrete persons accepting orders was to lead to a business relationship based largely on personal contacts, trust and loyalty. Such a policy of companies, however, results in the generation of service costs, the structure of which consists of many different elements, which can be grouped into three categories. The table 2 shows examples of grouped customer service costs for a 560 € order.

Table 2. Example of purchase and customer service costs for a 560 € order.

Purchasing costs:		
- purchase price		442 €
- business talks, business correspondence		0,72 €
- participation in fairs		2,43 €
- costs resulting from legal regulations concerning purchases		3,57 €
- transport, services of transport companies		35,72 €
Customer service costs:		
- Selling costs:		
- managing the commercial department		18 €
- infrastructure management		5 €
- services of external companies		2 €
- Distribution costs:		
- the formation of the transport unit		5 €
- stockholding		1 €
- delivery costs		5 €
- after-sales services		2 €
Total costs:		522,44 €

Since the sales price was €560, the profit from the sale of the goods at this price is 37.56 €. The relationship between the different types of costs and profit is shown in Figure 2.

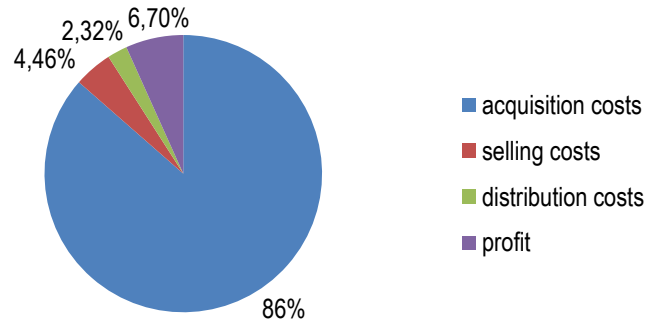


Figure 2. Percentage of different types of costs in relation to profit

Managers of the surveyed companies confirmed in interviews that for most transactions it is much easier to estimate the costs of purchase than the costs of sales and distribution. Sales and distribution costs are variable, as companies act as emergency services, it is very difficult to predict the size and structure of orders. Customers are often companies that do not have a disciplined warehouse management and inventory management. The profit is also affected by fluctuations in purchase prices at a constant sales price. Prices of some products change due to changes in raw material prices (e.g. the price of stretch film, which is produced from oil) or due to changes in currency exchange rates. In turn, distribution costs are influenced by, for example, the possibility of load consolidation. If a supplier can combine loads and make several deliveries on the same day to customers located close to each other, this reduces distribution costs. Meanwhile, the priority in order fulfillment is delivery time, not costs. Logistic goals of companies very often cannot be consistent with strategic goals.

The second part of the analysis provided a closer look at the different fields of Christopher and Peck's matrix, and made it possible to draw further conclusions about the discussed strategy.

In the build-up zone, there are customers purchasing generally available products, on the market of which there is a strong competition based mainly on pricing. In order to win customers all incentives and promotional activities of companies operating in this area must therefore focus on lowering prices, which is extremely difficult, as such a policy puts the profitability of sales in question. According to the suggestion made in the literature on the subject, in the case of companies in the build-up zone, it is necessary to try to increase turnover without increasing costs. This is almost impossible in the case of the dependent demand of the company's

customers, as these customers are already fully sourced from the investigated company and since they operate on the dependent demand basis, they cannot be expected to increase their orders.

In the risk zone there is a group of companies that generate relatively high service costs but not very high profits. The managers of the surveyed companies explained the specific cases with generally very good personal contacts with these companies and underlined the specific nature of the relationship. For these customers, a reduction in service costs is considered, but this can be difficult. No one has questioned giving up these customers because of the personal relationships in question. In the area of cost analysis, the figure also included several entities, mostly enterprises, with which the companies have formalised their cooperation and with which they have established strong B2B relations. Again, the surveyed companies temporarily do not see the possibility of reducing service costs. The protection zone includes companies purchasing innovative products - specialized polypropylene tapes used for securing goods for shipment on vehicles. There are only a few of these products on the market, their market is not large, and dealing in this product requires appropriate certificates and technical documentation confirming that the product meets the technical requirements. This is the only zone where the management of the company is satisfied with the existing business relations and profitability. According to the literature on the subject, in the case of such clients it is necessary to take care of the relations and look for opportunities to deepen them, because they are of great value to the company. At present, the management of the 6 of the investigated companies are considering decisions related to the modification of the adopted competitive strategy. It appears that the way in which the company in question operates as an "emergency service" generates relatively high costs. Competition in the packaging industry is very strong and customers - contrary to the expectations of the company managers - do not show the expected loyalty and can easily resign from deliveries from a given supplier as soon as they receive a better price offer from another one. However, this situation does not apply to the protection zone with companies purchasing polypropylene tapes. The surveyed companies are therefore considering a change of strategy: a partial departure from a group of products such as packaging tapes or stretch film (medium-sized customers from the build-up zone) and finding customers who buy polyester tapes (such as large companies from the protection zone). In other words, the change would consist in changing from the strategy of the most important customer service element to the differentiation strategy described by Porter, i.e. a strategy outside the scope of logistics-based strategies. This would be a radical change, requiring appropriate marketing efforts and, more importantly, not without risk.

Conclusions

The presented study had its limitations, obviously. In the packaging industry, there is a great diversity, both in terms of the form, scope and methods of operation of companies. Therefore, it is very difficult to identify entities with common features and generalise research results. Nevertheless, the analysis of the company's customer portfolio based on the presented matrix combined with an in-depth interview with the management allowed us to confirm the hypothesis and formulate the following, more general conclusions concerning the achievement of competitive advantage using the strategy of the most important element of service. This strategy, based on the shortest delivery time, stock availability, delivery reliability, flexibility, accuracy and completeness, is a strategy based on logistical advantage, which involves the risk of high service costs or low costs with low profits at the same time. Christopher and Peck's analysis of the matrix leads to the conclusion that companies should aim to move their customers to the left (reducing costs) and upwards (maximising profit) in the chart. In practice, however, this is extremely difficult in some industries and market segments. From the point of view of the surveyed companies, it is only possible to shift to the left on the chart (i.e. to reduce costs). In the case of companies that operate on the basis of an efficient logistics strategy, it should be noted that this strategy may turn out to be very costly. Nevertheless, it is possible to take measures that would reduce costs. This can be done by increasing the minimum order quantity or aiming to eliminate from the portfolio those customers who generate relatively high costs with low profitability. Consideration should also be given to correlating the price with the size of the order, which is, of course, a well-known solution in the strategies of supplier companies. Another issue is the price increase itself, which, due to the high competition on the market in this area, is a risky move that may result in the loss of customers. However, solutions based on price increases are, as evidenced by discussions with industry representatives, exceptionally risky steps, because in this industry the effects of turbulent environment accumulate: fluctuations in demand on the consumer market, economic situation, changing legal regulations concerning packaging, as well as growing competition. However, one way out is to change the strategy from a strategy based on efficient logistics to another that would guarantee higher profitability. Regardless of what decisions the management makes, in the current market conditions portfolio analyses should be systematically conducted and managers should constantly adjust their actions to their results.

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LOGISTYCZNA OBSŁUGA KLIENTA W BRANŻY OPAKOWANIOWEJ

Streszczenie: Rynek opakowań jest przykładem rynku przemysłowego o bardzo wysokim poziomie konkurencji. Toczy się tu walka o przewagę konkurencyjną oparta na jakości, cenie i innowacyjności technologicznej. W obliczu tej sytuacji, niektóre firmy z branży przyjmują strategię logistycznej obsługi klienta jako strategię konkurencyjną, opisaną w literaturze przedmiotu i znaną z praktyki biznesowej. W artykule podjęto próbę zbadania skuteczności tej metody w osiąganiu przewagi konkurencyjnej w branży opakowaniowej. W tym celu zbadano dane uzyskane od 8 firm opakowaniowych stosujących strategię zwaną strategią najważniejszego elementu obsługi klienta. Badanie opierało się na wywiadach z menedżerami tych firm oraz analizie portfelowej. Potwierdziło ono hipotezę, zgodnie z którą w przypadku strategii najważniejszego elementu obsługi klienta istnieje ryzyko wysokich kosztów obsługi lub niskich kosztów przy jednoczesnym niskim poziomie zysków. Sformułowano też zalecenia i wnioski dotyczące zarządzania takimi podmiotami.

Słowa kluczowe: rynek opakowań, przewaga konkurencyjna, firmy pakujące, strategia logistyczna jako strategia konkurencyjna

包装行业的物流客户服务

摘要: 包装市场是竞争非常激烈的工业市场的一个例子。最近，人们一直在为基于质量，价格和技术创新的竞争优势而斗争。面对这种情况，行业中的一些公司正在采用客户服务物流策略作为竞争策略，这在主题的文献中已有描述，并从商业实践中得知。本文尝试检验这种方法在包装行业中获得竞争优势的有效性。为此，对从8家包装公司获得的数据进行了调查，这些公司采用了称为客户服务最重要要素的策略。该研究基于对这些公司经理的访谈和投资组合分析。该研究证实了以下假设：最重要的服务要素策略同时涉及高服务成本或低成本，低利润的风险。因此，已经为管理此类实体制定了建议和结论。

关键词: 包装市场竞争优势包装公司物流策略作为竞争策略