

prof. dr hab. Piotr Banaszyk  
 Uniwersytet Ekonomiczny w Poznaniu  
 ORCID: 0000-0002-9457-3613  
 e-mail: piotr.banaszyk@ue.poznan.pl

# The effectiveness criteria from the enterprise management and supply chain management perspective

*Kryteria wydajności z perspektyw zarządzania przedsiębiorstwem oraz zarządzania łańcuchem dostaw*

## Abstract

The issue of the economic efficiency of any business entity has extensive literature and equally frequent discussions and polemics. The main axis of the dispute is how to measure this efficiency, and specifically the field of reception of its measures. The evolution of views goes from simple financial approaches, by including qualitative events into measurement, to multidimensional approaches with the ambition to comprehensively capture the efficiency.

The emergence of supply chains and their increasingly important role in shaping the competitiveness of the companies participating in them has revealed a weakly perceived problem, namely the relationship between the effectiveness of the enterprise and the effectiveness of the chain as a whole. The analysis and assessment of the significance of these relationships is the subject of this study. The research goal is to identify and interpret the basic criteria underlying the management of a single enterprise in confrontation with such criteria related to the supply chain in which the enterprise participates. On this basis, practical conclusions and directives will be formulated. The research method used is deduction based on literature studies and observation of business practice.

As a result of the reasoning, it was found that for enterprises the best criterion for assessing efficiency is their profitability. However, for the supply chain as a whole, the measure of effectiveness should be an assessment of its competitiveness. The company is managed in terms of the maximization of EVA and MVA ratios. The supply chain, instead, is managed with a view to building its competitiveness. There is a positive correlation between these criteria. The more competitive the supply chain as a whole, the greater the possibilities for individual enterprises to maximize their efficiency.

## Key words:

Keywords: supply chain management, business efficiency, competitiveness

## Streszczenie

Zagadnienie wydajności ekonomicznej przedsiębiorstwa doczekało się obszernej literatury fachowej i jest przedmiotem częstych dyskusji i polemik. Debata na ten temat skupia się wokół pytań o sposoby pomiaru wydajności, a jeszcze konkretniej, o kwestię recepcji takich pomiarów. Ewolucja poglądów postępuje tutaj od prostego podejścia finansowego, poprzez uwzględnienie w pomiarze zdarzeń o charakterze jakościowym, po podejścia wieloaspektowe, nacechowane ambicją całościowego ujęcia problemu wydajności.

Pojawienie się łańcuchów dostaw i ich coraz istotniejsza rola w kształtowaniu konkurencyjności uczestniczących w niej firm ujawniło pewien problem, dotychczas niedostatecznie postrzegany: mianowicie, zależności pomiędzy wydajnością przedsiębiorstwa, a wydajnością łańcucha jako całości. Analiza i ocena znaczenia tych zależności stanowią przedmiot niniejszego artykułu. Jego celem badawczym jest określenie i interpretacja podstawowych kryteriów uwzględnianych w zarządzaniu pojedynczym przedsiębiorstwem w zestawieniu z takimiż kryteriami dotyczącymi całego łańcucha dostaw, w którym przedsiębiorstwo to uczestniczy. Na tej podstawie sformułowane zostaną wnioski praktyczne i zalecenia. Zastosowaną metodą badawczą jest dedukcja na podstawie studiów literatury i obserwacji praktyki gospodarczej.

W wyniku przeprowadzonego rozumowania ustalono, że w odniesieniu do przedsiębiorstw najlepszym kryterium oceny efektywności jest ich rentowność. Jednak w odniesieniu do łańcucha dostaw jako całości miarą efektywności powinna być ocena jego konkurencyjności. Przedsiębiorstwa powinny być zarządzane ze względu na maksymalizację wskaźników EVA i MVA. Łańcuch dostaw powinien być zarządzany z punktu widzenia budowania jego konkurencyjności. Pomiedzy tymi miarami występuje pozytywna korelacja. Im bardziej konkurencyjny jest łańcuch dostaw, tym lepsze rezultaty ekonomiczne osiąga ją przedsiębiorstwa go tworzące.

## Słowa kluczowe:

Słowa kluczowe: zarządzanie łańcuchem dostaw, rentowność, konkurencyjność

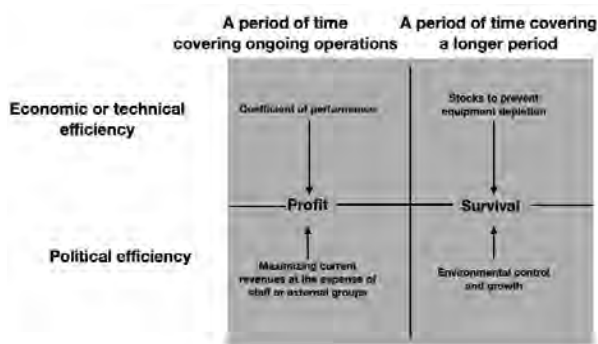
## Business efficiency — the essence and controversy

A thorough analysis of the problem of assessing the effectiveness of any organization (where both a single enterprise and the supply chain as a whole are considered organizations) was presented by D. Katz and R. Kahn (Katz and Kahn, 1979, p. 232–265). They presented a general conclusion stating that: "There is no doubt that we are facing the problem of developing satisfactory criteria for the organization's activities; less obvious is how to solve it. It is assumed here that the main difficulty is essentially theoretical — conceptual and the search for remedies should begin with the classification of concepts". The reasoning of these Authors leads to the conclusion that for each organization (including those that are focused on economic profit, i.e. enterprises) it is useful to apply the efficiency category. The efficiency of an organization allows for comparing energy expenditure to the energy result achieved. However, this measure is very imprecise, because it is difficult to capture the entire energy input. It is not completely direct. The organization draws energy both through material and work-related expenses. The carrier of the former, however, are objects of work and its tools. With regard to workloads, we can speak of their direct and indirect nature. In addition, it is difficult to determine the spatial arrangement from which energy is drawn. The latter complication is related to the geographical location of the organization, closer or farther from the supply and outlet markets. The more efficient the organization, the better its ability to accomplish growth processes and, in effect, to survive. Technical and economic factors increase efficiency of an organization. According to Katz and Kahn, it is also worth focusing on the impact of tactical (political) factors, thanks to which an organization can obtain privileged transactions or locations of its activities. As a consequence of the analysis, these authors come to the conclusion that "the effectiveness of the organization can be defined as maximizing its income through the use of economic, technical and tactical measures" (Kahn, Katz, p. 255). The logic of this reasoning is presented in Figure 1.

A similar initial opinion is formulated by Ephraim Yuchtman and Stanley Seashore: "little attention is dedicated to the concept of efficiency alone. It remains rather vague" (Yuchtman, Seashore, 1979, p. 222). These authors point out that the very widespread traditional approach to organizational efficiency derives its results from two key assumptions. First, each organization pursues a goal and, secondly, this goal can be described empirically and the effectiveness of its implementation can be assessed. The assumptions made reveal differences in whether this goal is set (e.g. by top management)

Figure 1

Organizational reference system



Source: (Kahn, Katz, p. 257).

or is derived regardless of the intentions of the owners and management of the organization. The terms of "purposeful and functional approaches" are proposed (Yuchtman, Seashore, 1979, p. 223). The first one regards the goals of the organization as the norm of its activities and allows quite easily for assessing the effectiveness of their implementation. The other approach is that the goal is derived from the reconstruction of the prevalent value system in the organization, which makes it possible to legitimize the actual goal, or set of goals, and to prove the reasons why this goal has priority over other potential aspirations. The purposeful approach is based on the belief that the organization's goals should enable proposing some useful ones, accepted by the organization's environment. In this approach, the organization serves the environment, in particular those entities which the survival of the organization depends on to the highest extent. The functional approach derives goals from intra-organizational values, i.e. it assumes that the goals of the organization serve the organization itself.

## The emergence process in the supply chain

The literature proposes many definitions of the terms used in this study, often in mutually incompatible terms. For this reason it is necessary to declare the position assumed here. For example, Elżbieta Golembaska uses the term logistics chain to indicate that "it is such a warehouse and transport chain, which is a technological combination of storage and transport points by freight routes, and organizational and financial coordination of operations, ordering processes and stock policy of all links in this chain" (Knowledge compendium: logistics, 2001, p. 19). Jarosław Witkowski, instead,

uses the term supply chain, describing it as "companies cooperating in various functional areas of mining, production, commercial, service companies and their clients, between which flows of products, information and financial resources occur" (Witkowski, 2010, p. 19). As can be seen in the definition of the logistics chain, it is the process of moving goods that is emphasized, which is the cause of organizational and financial consequences. In defining the supply chain, the emphasis is placed upon cooperation between enterprises and it is this cooperation that has effects in the field of the flow of goods, information and financial resources.

According to Oliver Williamson, the form of the transaction largely depends on the characteristics of the resources involved in the performance of the contract concluded. Resources can be universal or specific. In the first case, they can serve the requirements of many partners, whereas in the second they are tailored to the needs of the distinguished partner and are not at all or only poorly suitable to fit other partners. Specializing of resources can apply to both human and other inanimate type of resources. People learn mutual cooperation over time and gain trust in each other. Specializing inanimate resources reduces transformation (production) costs. Williamson argues that under conditions of using universal resources, the cooperation of enterprises is regulated by a competitive market, the use of which, however, increases transaction costs. Under conditions of using specialized resources, instead, there is a bilateral dependence of partners. In such a situation not only are the transformation costs decreasing, but also — if the cooperation is focused on the long-term horizon — the supplier does not have to include the cost of changing the recipient in the transaction costs. Williamson calls the phenomenon of fundamental transformation the shift: from cooperation based on the use of a competitive market, to cooperation based on hierarchical dependency and long-term relationship (Wilkin., 2016, p. 198–199). If you look more closely at this phenomenon, it can be seen that this is a process of shaping supply chains. It is profitable for companies to cooperate economically with each other, and it is best, in the long run, to be able to adapt their resources to mutual needs and possibilities.

Therefore, there is a process of transforming the characteristics of the potential of individual enterprises participating in the emerging supply chain, and transforming the nature of relationships connecting these enterprises. Following Mario Bunge, it can be assumed that two mechanisms work here: reorganization and growth. Both change the structure of the system that creates the supply chain (Bunge, 1979, p. 248–249). The reorganization consists in changing the structure of the system as a

result of shaping relationships and interactions between enterprises differently. The growth changes the structure of the system due to the increasing number of its elements, i.e., in this case, due to the emergence of more enterprises entering the supply chain. These two mechanisms — according to M. Bunge — are the reason that one cannot conclude about the condition and desirable shape of the supply chain as a whole, even referring to the best knowledge about each of the companies separately. This results from the so-called emergence, i.e. sudden appearance of something new and at the same time improving the state of affairs.

It can be assumed that the supply chain is a set of enterprises built along a vertical technological and operational process (or, as it is sometimes claimed, along the process of adding value to subsequent results of economic activity) ranging from obtaining raw materials, and ending with passing on final products to consumers. The terms used in this definition are:

- set of enterprises, i.e. any number of enterprises that can be treated as elements of their collection. The collection itself should be qualified as collective, i.e. as a whole it becomes more than a simple sum of its elements;
- vertical technological and operational process means that companies are cooperating with each other in the subsequent stages of production operations, in the process starting with the acquisition of raw materials and ending with the delivery of the product for consumption, i.e. their use to meet people's needs. If we adopt a subjective perspective, then by satisfying these needs, consumer satisfaction is built, and individual companies successively add value in use to the product.

The above approach determines that:

- (a) the real system is a supply chain composed of parts which are the enterprises participating in this chain and their mutual relations determined by the logic of the vertical technological and operational process organizing the cooperation of these enterprises;
- (b) the environment created by the supply chain consists of all physical and legal entities that do not belong to this system; they may condition the system's operation potential or are recipients of the system's output;
- (c) there is a mechanism shaping the activity of this system.

On the one hand, the above mentioned mechanism may result from the logic of the activity of enterprises participating in the supply chain (logic of the activity of system elements). On the other hand, however, enterprises participating in the supply chain through relationships resulting from their cooperation create a previously non-existent

structure, and thus a new mechanism determining the logic of the supply chain as a real system. The question therefore arises about the essence of these mechanisms and the relationship between the two mechanisms.

## The mechanism shaping the activities of an enterprise participating in the supply chain

Usually, the logic of any business activity results from the goal(s) as seen by whoever manages it. Peter Drucker expressed it in an universal way, saying that "the goal of management is to ensure the expected results implied from the activities of the institution. The management process must start with determining these effects and taking care of the resources necessary to achieve them. Management is a tool to provide an institution, regardless of whether it is an enterprise, church, university or hospital, with the possibility of achieving the intended results in the external environment in which it operates" (Drucker, 2000, p. 39).

For many years, the dominant view as to the desired goal of managing an enterprise was the belief, and a directive resulting from it, that it is maximizing the added value for shareholders (i.e. owners of capital financing the enterprise's activity).

The perspective of shareholder value assumes that it is capital suppliers that finance the creation and operation of an enterprise bearing a high economic risk. By providing funds, they expect adequate remuneration for their financial contribution. They could, for example, place their capital safely in a bank, so if they don't then they should be guaranteed an income higher than the banking percentage would be. From an operational point of view, this leads to the conclusion that the goal of business management is to maximize the economic value added and market value of the company. Economic value added (EVA) is the difference between the return on net assets and the cost of capital employed in the company (Brilman, 2002, p. 45). The concept of the cost of capital is of fundamental importance, interpreted here as the cost of lost opportunities. Therefore, it is not enough for an enterprises to be traditionally profitable to create economic value. Instead, it should be more profitable than would have resulted from investing the capital in alternative business operations. With EVA is strongly correlated the market added value (MVA), i.e. the excess of the market value of the enterprise (e.g. the value of its market capitalization) over the total value of invested capital (Brilman, 2002,

p. 46). This position regarding business management purposes therefore assumes that business owners or, more generally, financial capital providers, are entities from whose perspective the business efficiency assessment should be made. The range of economic events that should be taken into account is the financial results obtained by the enterprise.

EVA and MVA can be maximized in two main ways. Because the EVA calculation formula assumes that it is the ratio of net profit to the total value of assets, then:

- EVA increases if the net profit increases, and the total asset value may increase, but no faster than the profit dynamics. Net profit is the difference between sales revenues and the total cost of obtaining those revenues and the amount of taxation; thus, growing sales revenues and relatively decreasing costs and taxes, results in increasing EVA and also MVA;
- EVA also increases if the value of total assets decreases, and the net profit, where it decreases as well, then it does no faster than the dynamics of decrease of the former; the decrease in the net asset value will occur when some of them are given up. This means using the outsourcing method.

From the supply chain point of view, both of the above-mentioned methods create dangers. Because:

- if you focus on increasing sales revenues, it's easiest to achieve this by raising sales prices. One can imagine that this is not so difficult in a supply chain, because the recipient of the products and the payer are passive cooperators, forced to accept this increase (at least in the short term); however, instead of concerted cooperation, the negotiating advantage (competitive position) is used and the net profit of this co-operator is reduced. Business relationships in the supply chain are becoming hostile;
- where focusing upon the value of total assets, this may lead to a decrease in the level of specificity of resources due to the contractor's requirements; Oliver Williamson argues that in the conditions of use of specialized resources there is a bilateral dependence of partners, and if the cooperation is focused on the long-term horizon, then the supplier does not need to include the cost of switching customers in the transaction costs.

The explanation of the mechanism shaping the logic of the activity of each enterprise, understood as autonomous organizations, is based on the adoption of targeted approach (described in point 2). Enterprises are striving to maximize EVA and MVA because their capital suppliers require so, and they are the most important and influential subjects of the external reference system (environment).

## The mechanism shaping the supply chain activities

It can be assumed that the supply chain is a so-called extended enterprise. An extended enterprise is a set of independent enterprises achieving excellence in their core business and using some distinctive competences of other enterprises cooperating in a closely coordinated manner (Brown, Sackett, Wortmann, 1995, p. 243). For example, Anna Baraniecka and Sandra Zięba-Szewczyk believe that the supply chain "is widely treated by its researchers as an extended enterprise. It can therefore be assumed that it is subject to similar trends and is influenced by similar conditions as a single organization. This means that modern management concepts or new ideas that accompany business activities also apply to supply chain management" (Baraniecka, Zięba-Szewczyk, 2018, p. 4). Assuming that maximizing EVA and MVA are the goals of any enterprise that runs business in a competitive environment, a significant problem is revealed in relation to the extended enterprise. While a single enterprise has one decision-making center and uses the administrative structure to achieve its goals, the extended enterprise is a federation of enterprises. In this case, the problem is the need to find a solution that would enable reconciling the maximization of EVA and MVA by the extended enterprise and by each of the enterprises federated. It is known that the optimum of a part of any whole does not add up to the optimum of that whole. If the goal of an extended enterprise is to be achieved, then at least some of the federated enterprises should operate sub-optimally from the economic point of view, and this certainly will not satisfy financial capital providers. If the maximization of EVA and MVA is to be the achievement of each of the enterprises federated, then it will be impossible for the extended enterprise to achieve this goal. The goal(s) of the supply chain should therefore be different from the goal(s) of the companies it consists of. Referring to the observations of Yuchtman and Seashore — the goal(s) should be consistent with the functional approach.

According to Jay Barney, competitive advantage is achieved where preferred values are realized through a strategy different from those implemented by current and potential competitors, or even where competitors imitating this strategy are unable to discount all the benefits resulting therefrom (Barney, 1991, p. 102). Developing a competitive advantage can therefore be considered a universal goal of the supply chain business. Where competitive advantage is achieved, this is equivalent of a greater market share, higher sales revenues, a safer future prospect, satisfaction of capital suppliers and acceptance by all

stakeholders. Therefore, if supply chain companies strive to maximize EVA and MVA and treat that as their key values, then increasing the competitiveness of the supply chain can be interpreted as its goal.

This is more or less the reasoning presented by Rafał Tarasewicz (Tarasewicz, 2014, p. 39–44), as he concludes that "efficiency [of supply chains] (...) is defined as the capacity of an organization (supply chain) to create the value of enterprises (and supply chains in which they participate) for both owners and all stakeholders, and in particular the capacity to:

- a) overcome problems,
- b) build competitive advantage,
- c) achieve current and strategic adaptation to changes in the environment,
- d) ensure efficient and economical use of available resources to achieve the goals adopted,
- e) comply with ethical standards and care for the environment (CSR).

In addition, the author states that it is not enough for the supply chain to bring valuable partners together, but that it should also provide a synergy effect for these partners" (Tarasewicz, 2014, p. 44).

Logical factor analysis allows us to conclude that all of these goals are positively correlated with building a competitive advantage only. However, how the concept of competitive advantage should be understood, is another issue.

The way in which the supply chain is competitive is determined by the situation. The literature on the subject presents various suggestions in this regard.

One popular approach was proposed by Richard Lamming, Thomas Johnsen, Jurong Zheng and Christine Harland, taking as a starting point the characteristics of the final product co-produced by supply chain enterprises (further characterization of the concept taken from Lamming, Johnsen, Zheng, Harland, 2000, p. 678–687). They recommend the use of a three-criteria supply chain management classifier. Namely, they consider the impact: firstly, of the degree of innovation of the final product, secondly, the originality of this product, and, thirdly, its comprehensiveness.

Due to the degree of product innovation, these authors propose to adopt a division into innovative products and functional products. Functional products are defined by a long life cycle and easy forecasting of market demand for them. However, the profit margin realized is low. Supply chain management is therefore primarily focused on reducing the costs of logistics processes — based on the lean philosophy, i.e. the pursuit of the lean supply chain. Innovative products, instead, have a short life cycle and it is very difficult to forecast market demand for them. On the other hand, however, they allow to realize a high profit margin. Managing their supply chain therefore prefers time compression of logistics processes and customization

of approach to final customers. Cost reduction is of little importance. Rather, supply chain management is based on the agile philosophy, i.e. the pursuit of high agility in market adjustments. The supply chain of functional products should be physically effective, and innovative products — market adaptable. Supply chain management of innovative products must cope with economic risk to a significant extent.

Due to the level of product originality, the authors of this concept propose a division into unique products and standard products. The first ones are characterized by the attributes of high price and manufacturing costs, rarity, difficulties in imitating them, and non-substitution. These features refer to the resource point of view on the company's competitiveness resulting from the so-called VRIO potential<sup>1</sup>. VRIO means here the high specificity of human and financial capital of enterprises, which they obviously endeavor to protect as much as possible. Supply chain management is therefore geared to protecting strategically relevant information and unique knowledge. In turn, standard products are cheap, easy to manufacture, widely available and easily substituted by products of other industries. Here, the protection of information and knowledge does not matter, but competition can take place mainly at a low price.

Due to the degree of complexity, primarily in technological terms, the authors of the concept divide products into complex and simple. Complex products consist of many components, often technologically advanced. This means that the partners themselves represent a high technical, capital and human level. Simple products do not have these features. In relation to supply chain management, the relationship is visible — the greater the degree of product complexity, the more complex the supply chain (and even the network). Along with the growing complexity of final products, the complexity of the supply chain on the entry side of the company increases, while the complexity of the supply chain on the exit side can be both large and small. Individual partner companies in the supply chain often have high transaction power and try to take control of the chain, which does not necessarily builds trust in the supply chain.

Adopting the characteristics of the final product as the basis for classifying different supply chain management principles makes the authors of the concept distinguish between:

- the principles and methods of supply chain management of unique, innovative and complex products, where competitiveness is built through speed, flexibility, innovation and the highest quality; sharing knowledge and information between partners is largely about non-strategic messages using large-scale IT systems, while sensitive information and strategic knowledge are protected;
- the principles and methods of supply chain management of standard, functional and simple products, where competitiveness is built by striving for maximum cost reduction, stable quality and developed after-sales service; sharing knowledge and information between partners applies to both non-strategic messages using large-scale IT systems as well as sensitive information and comprehensive knowledge;
- the principles and methods of supply chain management of unique, innovative and simple products, where competitiveness is built through speed, flexibility, innovation and the highest quality; sharing knowledge and information between partners is largely about non-strategic messages with little use of IT systems, while sensitive information and strategic knowledge are protected;
- the principles and methods of supply chain management of standard, functional and complex products, where competitiveness is built by striving for maximum cost reduction and a developed after-sales service; sharing knowledge and information between partners is largely about non-strategic messages with little use of IT systems, while sensitive information and strategic knowledge are protected.

Each of the models indicated can be applied to manufacturing, trading, construction, agri-food processing enterprises, etc. The key issue is to identify the central problem in supply chain management as a whole and various approaches to information and knowledge management in that chain. Regarding the management of unique product supply chains, the key problem is the postponement of the decision on the final characteristics of products, which should be relatively distant from final customers, while knowledge is silo-like and accumulated in an isolated manner in each chain enterprise (sometimes such supply chains are called leaky) (Lamming, Johnsen, Zheng, Harland, 2000, p. 678). In the case of supply chain management of standard products, postponing decisions on the final characteristics of products should be relatively close to final customers, and knowledge must be shared and enriched without restrictions. In relation to innovative products, supply chain management should be focused primarily on compressing the time of logistics processes implementation, which forces coordination and synchronization of partner enterprises, but the innovation of the final product tends to shape the leaky supply chain. The management of the functional product supply chain should be regarded as a key problem by striving for constant reduction of operating costs, including logistics costs, and maximizing the logistic quality of final customer service. Knowledge management depends on the originality and complexity of the final

product. In the case of managing the supply chain of complex products, the key problem is the quality of products and the quality of logistic service to final customers. Knowledge management should again shape leaky supply chains.

The guidelines resulting from the concept presented indicate problems in supply chain management, the solution of which is in common interest of all enterprises that make up the chain.

Yet another suggestion is the concept of John Gattorna. He identified four statistically dominant customer behaviors. First of all, these are cooperative behaviors resulting from the close proximity of the supplier and recipient, whose demand is relatively predictable and allows for regular deliveries, as well as preferring partner relations. Secondly, they are behaviors seeking to look for the cheapest offer in relation to the expected demand, but based rather on hostile relations. Thirdly, these are dynamic behaviors requiring a very quick response to the changing demand characteristics and forcing the supplier to look for the opportunity and use it as soon as possible, without hope to shape the loyalty of the recipient. Fourthly, these are innovative behaviors consisting in the recipient's constant pursuit of development supported by the supplier, so not only the demand is variable, but cooperation with such a recipient turns out to be very risky, and the price does not play a decisive role. Each category of customer behavior corresponds to a specific category of the supply chain. If customers exhibit cooperative behavior, then the continuous refill chain is best suited. Good cooperation between the supplier and the customer is a key factor in success. High predictability of demand only requires trust between the parties. If customers show low cost search behavior, then the lean chain is best suited. The demand pattern is regular and therefore predictable, and therefore the risk is low. The supplier is focused on effective customer service and eliminating everything unnecessary in its business operations to minimize its costs. If customers exhibit dynamic behavior, then the best-fit chain is the efficient one. Business agility is a key factor. The supplier promotes fashion or reacts quickly to the recipient's requirements. It is not uncommon for the chain to have the potential to

duplicate inventory, production, transport or work. If customers show innovative behavior, then a fully flexible chain is best suited. Gattorna considers it an extreme form of an efficient chain focused on handling unknown demand reported by unknown customers requiring immediate delivery. Depending on the supply chain category, the company implements different logistics management strategies. In the case of a continuous replenishment chain, the company strives to build lasting relationships with loyal customers through a reliable service offer. In the case of the lean chain, the company aims to discount the scale effect and experience by focusing on offering products at the lowest prices. In the case of an efficient chain, the company strives to compress time in customer service and in logistic response to changes in demand. In the case of a fully flexible chain, the company strives to anticipate potential economic risk and selectively distribute resources so that its responsiveness to demand is highest. Gattorna also emphasizes that the clients of one company can represent different types of behavior, i.e. the company is forced to shape different supply chains at the same time.

The way of orienting the supply chain management mechanism, unlike the management mechanism of the enterprise that creates this chain, is focused around shaping competitiveness on the final market served by this chain. In turn, the competitiveness of the chain as a whole is a condition for the efficiency of each of the companies participating in the chain.

## Conclusion

The research problem declared at the beginning consisted in the identification and interpretation of management criteria of the enterprise participating in the supply chain, and the same chain as a whole. Literature studies have led to the conclusion that these criteria are of a different nature. The company is managed in terms of the maximization of EVA and MVA ratios. The supply chain, instead, is managed with a view to building its competitiveness. There is a positive correlation between these criteria. The more competitive the supply chain as a whole, the greater

■ Table 1  
■ Customer behavior and the type of supply chain

Customer behavior	Cooperative behavior	Behaviors seeking low cost	Dynamic behavior	Innovative behavior
Type of supply chain	Continuous refilling chain	Lean chain	Agile chain	Fully flexible chain

Source: own study based on: Gattorna, 2013, p. 47–70.

the possibilities for individual enterprises to maximize their efficiency.

It can be assumed that this hypothetical conclusion may become a premise for further efforts from researchers, this time relying on empirical research suitable for statistical analysis.

## Summary

Recently, a thesis has been advocated that competition in the global economy is rather between supply chains rather than individual

enterprises. The phenomenon of supply chains is, however, a source of new problems. One of them concerns differences in the criteria of enterprise management and supply chain. From a theoretical point of view, supply chain management requires consideration of the emergence effect and one is forced to consider the effects of the emergence of new relationships and growth effects. This study justifies the view that enterprise management is performed according to typical efficiency criteria, i.e. EVA and MVA indicators, whereas in supply chain management the goal is to build its competitiveness. These two measures reinforce each other.

## Przypisy/Notes

<sup>1</sup> The resource concept in management theory sees the sources of the company's competitiveness in the attributes of its resource potential, in particular in its financial value, rarity, imitation possibilities and organizational mastery of the use of individual resources — Jugdev, 2005.

## Bibliografia/References

- Baraniecka, A., Zięba-Szewczyk, S. (2018). Corporate Social Responsibility in Supply Chain Management, *Marketing i Rynek*, 11, p. 4.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage, *Journal of Management*, 17 (1), p. 102.
- Brown, J., Sackett, P., Wortmann, J. (1995). Future manufacturing systems — towards the extended enterprise, *Computer in Industry*, 25, p. 243.
- Brilman, J. (2002). *Modern management conceptions and methods*, Warsaw: PWE, p. 45.
- Bunge, M. (1979). *Treatise on Basic Philosophy. Volume 4. Ontology II: A World of Systems*, Dordrecht-Boston-London: D. Reidel Publishing Company, p. 248–249.
- Drucker, P. (2000). *Management in the 21st Century*, Warsaw: Muza SA, p. 39.
- Gattorna, J. (2013). *Dynamic supply chains. Value is created by people*, EuroLogistics, Suchy Las 2013, p. 47–70.
- Jugdev, K. (2005). The VRIO Framework of Competitive Advantage: Preliminary research implications for innovation management. Paper presented at the Portland International Conference on Technology Management: A unifying discipline for melting the boundaries, Portland, Oregon (July 31–August 4).
- Katz, D., Kahn, R. (1979). *Social Psychology of Organizations*, Warsaw: PWN, p. 232–265.
- Knowledge compendium: logistics*. (2001). Warsaw: PWN, p. 19.
- Lamming, R., Johnsen, T., Zheng, J., Harland C. (2000). An initial classification of supply networks, *International Journal of Operations and Production Management*, 20 (6), p. 678–687.
- Tarasewicz, R. (2014). *How to measure the effectiveness of supply chains?* Warsaw: Oficyna Wydawnicza SGH, p. 39–44.
- Wilkin, J. (2016). *Institutional and cultural basics of economy. Humanistic perspective of economics*, Warsaw: Scholar, p. 196–197.
- Witkowski, J. (2010). *Supply chain management*, Warsaw: PWE, p. 19.
- Yuchtman E., Seashore S.E., (1979). Organization Effectiveness in the Light of System Resources. In: *Human Behavior in Organization*, Warsaw: PWN, p. 222.

**Prof. dr hab. Piotr Banaszyk**

Head of the Chair of Logistics at the Poznan University of Economics and Business.

**Prof. dr hab. Piotr Banaszyk**

Kierownik Katedry Logistyki na Uniwersytecie Ekonomicznym w Poznaniu.

Księgarnia

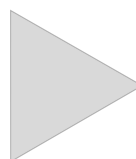
Internetowa

PWE

ZNAJDŹ

WYBIERZ

ZAMÓW



**www.pwe.com.pl**