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Enterprise Resource Management – New Dimensions and Problems

Abstract. The purpose of the hereby paper is to present the most important new dimensions and problems of enterprise resource management as perceived in terms of contribution of these resources to building strategic advantage. In the text the following issues have been discussed:

- current terminology dilemmas related to enterprise resources,
- present classifications of enterprise resources and their cognitive and utilitarian significance,
- role of enterprise resources in building strategic advantage,
- situational approach to resource management,
- increasing role of relational capital.

Keywords: resource management, capabilities, strategic advantage

Zarządzanie zasobami organizacji – nowe wymiary i problemy

Abstrakt. Celem niniejszego tekstu jest ukazanie ważniejszych spośród nowych wymiarów i problemów zarządzania zasobami organizacji, postrzeganych z perspektywy przyczyniania się tych zasobów do tworzenia przewagi strategicznej. Omówiono między innymi:

- współczesne dylematy terminologiczne towarzyszące zasobom organizacji,
- obecne klasyfikacje zasobów organizacji oraz ich znaczenie poznawcze i użytkowe,
- rolę zasobów organizacji w budowaniu przewagi strategicznej,
- podejście sytuacyjne do zarządzania zasobami,
- rosnącą rolę kapitału relacyjnego.

Słowa kluczowe: zarządzanie zasobami, zdolności, przewaga strategiczna

Introduction

Resources indispensable for organization operations have been the subject of management research virtually from their origin. The point of view of the first management researchers focused mostly on the so called traditional resources. However, later development of various management concepts resulted in fundamental changes of, among others, development of new forms of enterprise resources and of specific ways of using them.

The purpose of the hereby paper is to present the most important new dimensions and problems of enterprise resource management as perceived in terms of contribution of these resources to building strategic advantage. In the course of the studies

method of critical analysis of the literature was applied. The studies were carried out in two stages. In the initial phase presence and scope of resource management were analysed in scientific writings represented by international scientific journals available in the Emerald database. Thus the most significant dimensions and problems related to resource management were identified which are the subject of current interests of management researchers. The main part of the studies analysed selected scientific texts and the above formulated objective of the paper was achieved.

1. Terminology dilemmas related to enterprise resources

Complexity of the subject of resources of present organizations is demonstrated already in its terminology dimension. In the first period of the development of management sciences the term *resources* was sufficient to describe what do organizations need to produce goods and provide services. Here, presence of the so called traditional resources was recognized. Currently, the term *resources* co-exists with other terms close in meaning while the range of traditional enterprise resources was complemented with relatively new resources which to some extent existed in the past but were scarcely perceived or neglected.

Skaates and Seppanen (2005) rightly remark that in a situation when several terms close in meaning related to resources are used it is a prerequisite to explain them as precisely as possible in order to form a ground for organizing cognitive processes. Following this thought explanations of the term *resources* are presented together with the related term *capabilities*.

For this purpose, the author of the article applies Morecroft's (2002) approach according to whom:

"Resources are defined as anyone (human assets) and anything (tangible or intangible assets) that are available and useful in any activities an organization undertakes in pursuing its goals".

While capabilities are understood by Morecroft (2002) as:

"an organization's repeatable patterns of action in the use of resources, again usually in the context of activities that the organization undertakes in pursuit of its goals".

Therefore, the orientation for achieving enterprise's objectives is the common component of the two terms; both resources and capabilities should ensure efficiency of management processes. The consequence of the latter definition is that capabilities can be regarded as specific meta-resource of organization which results from learning processes within the organization and from its developing certain learned patterns of conduct. It is also worth noting that as enterprise's resources and capabilities are regarded only those which organizations have at their disposal. Such view is expressed also by Abu Bakar and Ahmad (2010) when they write that resources should be

owned or under control of organization. The second part of the mentioned statement implies that resources do not need to comply with the agreed limits of organization (owned resources) but may exist in its surroundings (controlled resources).

Enterprise's resources are limited to a greater or lesser degree. It means that management processes take place in different conditions in terms of limiting the resources; it is determined by such variables as for instance the size of organization (Abu Bakar, Ahmad 2010). However on the other hand, when we take a look at the purpose of an organization, which can be formulated as maintaining competitive advantage, it is required to take into account foremost the qualities of resources which can greatly contribute to the achievement of the objective thus formulated. Uniqueness of resources can be an example of the discussed quality.

2. Classifications of enterprise's resources

Actions related to the classifications of the enterprise resources are very diverse and bring various results. Selected classification approaches are presented below.

Significative classification of resources

This classification refers to the fundamental category of strategic management, i.e. competitive advantage. If an organization in its operations assumes an approach towards shaping competitive advantage based on resources, then resources can be classified with respect to the degree in which they contribute to shaping the aforementioned advantage. Thus it acquires hierarchical classification according to which individual types of resources impact competitive advantage in a specified way. Classification interpreted this way may embrace (Chaharbaghi, Lynch 1999):

- Peripheral resources – resources traditionally owned by an organization which however do not exhibit any relation to competitiveness of an organization. They are easy to acquire and replace.
- Base resources – have basic, fundamental significance for an organization, so that without them organization is unable to perform its primary functions. This type of resources can however be only regarded in terms of complying with minimum requirements related to organization operations in a competitive environment and does not ensure competitive advantage.
- Competitive resources – are resources which allow an organization to create added value taking into account market conditions. Examples of competitive resources are idiosyncratic technologies and knowledge resources, patents, location advantage, reputation and brand.
- Strategic resources – which refer to those unique resources of an organization which when introduced create a gap that cannot be bridged by the competition.

In the light of resource significance Warnier, Weppe and Lecocq (2013) use also term *common resources* to denote valuable resources that are not rare and do not allow the development of a competitive advantage but only establish a position of competitive parity. The same authors use the term *inferior resources* to designate non-strategic resources that are nevertheless used by an organization in its production process. Ultimately, however, they suggest division of resources into the following categories (Warnier, Weppe and Lecocq 2013):

- strategic resources,
- ordinary resources,
- junk resources.

As it can be noted, the this classification to a large extent corresponds to the previous one, yet they differ in the number of identified resources.

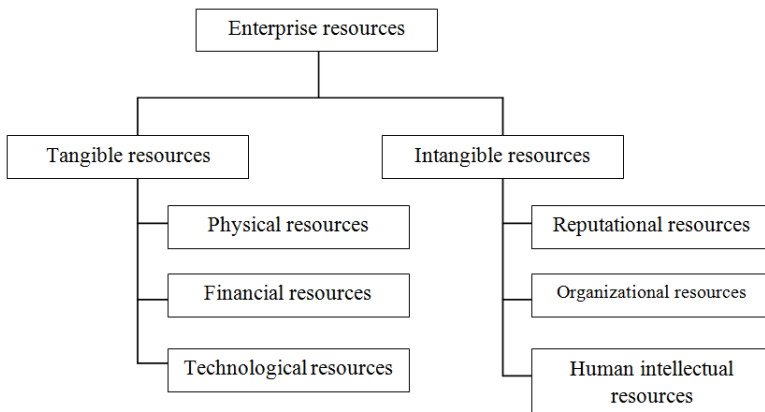
Generic classification of resources

In line with this classification resources can be divided to:

- tangible resources,
- intangible resources.

Tangible resources include capital, access to capital and location such as location of buildings, warehouse and other facilities. Intangible resources consist of knowledge, skills and reputation and proactiveness, innovativeness and risk-seeking ability (Abu Bakar and Ahmad 2010). Formal structure of enterprise resources in the generic approach has been presented on Figure 1.

Figure 1. Structure of enterprise resources



Source: author's own presentation.

The discussed classification ensures easier recognition and organization of enterprise resources.

Comparison of classifications of enterprise resources

Table 1 illustrates comparison of basic qualities of previously discussed classifications of resources.

Table 1. Comparison of classifications of resources

	Significative classification	Generic classification
Classification criterion	Impact of resources on shaping competitive advantage	“Visibility” of resources
Applicability of classification	Keeping a competitive benchmarking of resources Configuration of resources with respect to organization objectives and strategy Formulating objectives and strategy with reference to the resources owned Monitoring applicability of resources Functional and process management of resources development	Managing processes of obtaining and development of resources Taking decisions to invest in resources Protection of enterprise resources Co-authoring resources with stakeholders Taking into account types of resources in building internal organization

Source: author’s own research.

As it can be seen, the discussed classifications have complementary character from the point of view of their applicability in organization management. Generic classification, due to its clarity, allows to improve management processes from the point of view of building internal organization and taking all kinds of on-going decisions with respect to obtaining and development of resources. Significant classification is closely related to the strategic management process. Among others competitive benchmarking is an essential component of this process as it involves comparison of own potential of resources with other organization taken as a model.

3. Resources in building strategic advantage

The term of strategic advantage is used to describe dynamics of organization activities and unique resources which determine renewal its competitive advantage. Hence, the term is closely related to competitive advantage which is however less proactive as it concerns defining situation when an organization on an ongoing

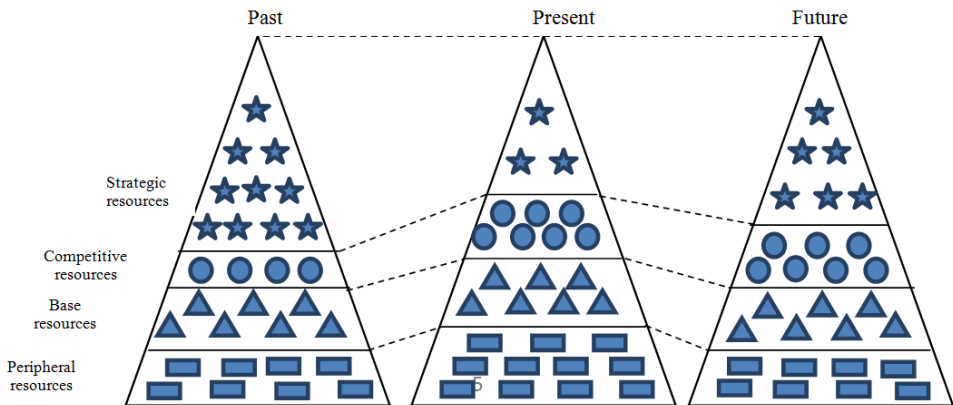
basis achieves ability to provide greater value than its competitors (Chaharbaghi, Lynch 1999). The concept of competitive advantage is therefore slightly static and based on rationalization of ex-post character. This is the reason why it does not explain how an organization should behave in a dynamic environment. Strategic advantage in turn (Chaharbaghi, Lynch 1999):

- provides the organisation with the unique ability to develop a strategic direction that creates new opportunities and shapes the future of its competitive environment.
- represents the sources of resource leadership in one or more product markets.

In such an approach, development of new resources becomes one of the essential objectives of an organization which leads to new implementation standards and perspectives of creating new business opportunities. Parallel activities connected with creating new resources may lead organization to discovery of new sources of strategic advantage.

Figure 2 illustrates the general idea of organization strategy based on dynamic configuration of resources.

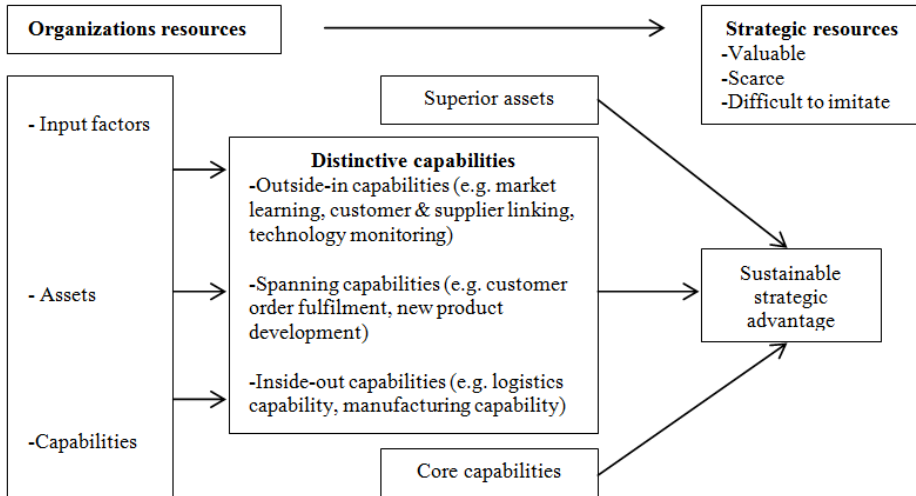
Figure 2. Dynamic configuration of resources for the needs of organization strategy



Source: Adapted from Chaharbaghi, Lynch, 1999.

The primary principle of this configuration is that the present state of strategic resources represents future potential of an organization to create new market values for which the organization can receive a premium. Furthermore, the presented dynamic configuration of resources forms a flexible response to various, potential scenarios of business operations. Figure 3 complements the considerations of the impact of resources on strategic advantage of organization.

Figure 3. Model of using resources in building strategic advantage



Source: Adapted from Olavarrieta, Ellinger, 1997.

Key assumptions made in the Figure 3 are as follows:

- in the process of creating strategic advantage organization should use various resources,
- resources important from the point of view of creating strategic advantage have internal and external origin,
- strategic resources and key capabilities of organization play a significant role in shaping strategic advantage,
- organization in the course of the continuous process of strategic management should develop resources with the aim of transforming them in capabilities of particular importance.

Azzone, Bertele and Rangone (1995) advocate the view that the competition based on the resources should include their measurement. Yet, their proposal covers shaping, monitoring and analysing resources measurements referring exclusively to the interests of shareholders as expressed by two fundamental items: profitability and growth rate. From the point of view of the present trends in the management science such a perspective seems too narrow – observations of the entrepreneurial practices also confirm that view. According to the author of the present paper it requires broadening the perspective to include also the other stakeholders what will result in the reduction of risk of missing not infrequently important aspirations. Table 2 gives an example of a set of indicators adequate to a situation of a high-tech company. Introduction in the organization practices of the resources measurement should concern only those aspects which are critical from the strate-

gic advantage perspective. It allows to define efficiency and effectiveness of their application what is essential for economic dimension of management. Ultimately, organization, on the basis of analysis of available data, may improve costs of resources.

Table 2. Example of indicators of resources typical for a high-tech company

Resources	Measures		
	Quantity	Quality	Accessibility
R&D capability	Number of patents	Number of quotations	Training budget
Brand	Brand awareness rating	Customer retention rate	Number of new market segments/Number of current market segments
Technical employees	Number of skilled people	Employee excitement rating	Organization's reputation in schools and universities
Capital	Capital assets	Cost of capital	Financial leverage
Integration	Number of interfunctional teams	Time to market	Functional versus process culture

Source: Adapted from Azzone, Bertele, Rangone, 1995.

4. Situational context of resources management

Complexity of operations carried out by present organizations oftentimes results in the need to adapt the applied approach to various situations. This regularity also concerns resources management. Below, specifics of the issue of resources management is presented in selected situational contexts.

Resources management in relations with clients

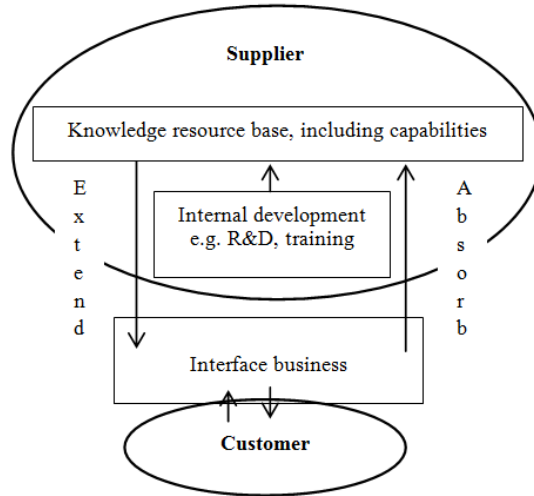
Figure 4 presents a framework model of resources management with respect to relations with clients.

As it can be noticed, organization functioning as the supplier develops its resources in twofold manner: internally and externally (however, in both cases by interactions with clients). Juttner and Wehrli (1994) believe that in the situation of interaction between an organization and a client presented in Figure 4 there are 6 types of resources exchange:

- exchanges for internal development of resources,
- exchanges for the external acquisition of resources,

- exchanges for intra-organizational resource coordination,
- exchanges for inter-organizational resource coordination,
- exchanges for external realization of offering values, and
- exchanges for internal realization of offering values.

Figure 4. Model of resources management in relations with clients



Source: Adapted from Skaates, Seppanen, 2005.

Skaates and Seppanen (2005) emphasize that in relations with clients there are three primary forms of enterprise resources development: 1) internally, 2) in external two-party projects, 3) in multi-party network-level external joint projects. The given forms have obviously formalized character what does not rule out the application of not formalized solutions, e.g. intuitive or unconscious.

Resources management in micro enterprises

In the literature one can find attempts to present main factors which determine management practices applied in micro enterprises. According to one of the proposals, among these factors there are (Kelliher, Reinl 2009):

- The micro-firm business strategy. It is based, *inter alia*, on reduction of the planning process, setting out subjective aims by the owner, fast response to the market signals, flexibility in specialization.
- Organizational structure and decision process. Usually, the owner is the key person who makes all significant decisions. Both the structure and decision-making processes are extremely flexible.

- Micro-firm business culture. It is usually based on motivations, values, attitudes and abilities of the owner. Very efficient internal communication is one of its qualities.
- Micro-firm relationships with the business environment. Such companies more often function in a not very competitive environment and have only limited ability to impact it.

The listed factors influence also practices of resources management in micro enterprises. Specifics of resources management in micro enterprises is defined by the following qualities:

- having a limited access to resources the enterprises are usually orientated towards short-term objectives (Kelliher, Reinl 2009),
- shaping new capabilities to compete is in case of these enterprises difficult due to the restricted capabilities of employees and lack of possibility to use the scale effect and achieve (Pil, Holweg 2003),
- difficulty in hiring specialists in various areas who would significantly improve learning processes (Simpson 2001).

In the outlined situation of limited resources management competencies and employees' commitment may oftentimes be the crucial success factor of micro enterprises.

5. Increasing role of the relational capital

In association with the increasing popularity of the outsourcing method the role of resources acquired from the environment is growing. Relational capital is one of the most important resource. It can be defined as the value of the relations that an organization maintains with different agents of its environment (de Castro, Saez, Lopez 2004). Thus the above definition does not restrict the perspective of building relational capital to single stakeholder (e.g. customers) but exposes holistic aspect of this category of resources. Sometimes relational capital is regarded as a component of social capital. The reason for this is the fact that trust and commitment of partners are the fundamental components indispensable for building relational capital (Sambasivan et al. 2011). Management of building relational capital should include several elements such as (cf. de Castro, Saez, Lopez 2004):

- structure and identification of the main characteristics of the agent,
- main processes that occurs,
- outcomes of the relation, and
- risk.

Therefore it can be noticed that creating relational capital is not a fully neutral process for an organization but is connected to numerous opportunities and threats.

The key stakeholders with which an organization can create relational capital are: customers, suppliers, shareholders and allies (e.g. competitors, research centres). Additionally, these may include: government agencies and market regulators, trade unions, community-based agencies and mass media.

Academic research on relational capital focuses nowadays on two primary trends. The first one concerns organizational forms fostering creation of relational capital. Among these strategic alliances are the most popular approach. The following qualities of creating relational capital as part of alliances are worth noting (Sambasivan et al. 2011):

- the value of relational capital is greatly determined by efficiency of everyday functioning of alliance,
- in case of international alliances creation of relational capital is influenced largely from cultural factors,
- efficiency of communication processes and information exchange have great importance for building relational capital.

The other research trend deals with identification of barriers and stimuli for creating relational capital. Among the first factors (barriers) opportunistic behaviour of organization is mentioned most frequently (Delerue-Vidot 2006). While reputation of organization is an important stimulus for creating relational capital. It is due to the fact that reputation is related to the way stakeholders perceive actions of the organization. In the literature three principal dimensions of organization reputation are mentioned (de Castro, Saez, Lopez 2004):

- financial reputation or financial strength,
- managerial reputation or corporate management responsibility,
- community reputation or community and green responsibility.

Each of these dimensions individually as well as part of various combinations significantly impact stakeholders' willingness to co-operate with the organization and shape the level of mutual trust. Empirical studies allow to conclude that creating relational capital may contribute to the following benefits (Sambasivan et al. 2011):

- streamlining achieving objectives by the organization and its partners,
- streamlining identification of new opportunities, chances and offering new products,
- fostering learning processes of the organization in terms of future strategic advantage,
- creating advantage networks,
- improving productivity and profitability.

The above list of benefits covers a wide range of them taking into account current and future situation.

Summary

Conducted research allows to formulate the following final conclusions:

- The notion of resources is oftentimes used interchangeably or concurrently with the term of capabilities. In the second case capabilities are understood as assembly of resources, or their transformation, which substantially determines the success of an organization.
- Currently, significative and generic classifications are of key importance. The first one explains the degree of contribution of individual types of resources to building strategic advantage of organization and enables to organize resources according to their significance. While the latter classification facilitates cognitive processes concerning resources and facilitates structuring them in two primary categories; tangible and intangible.
- Resources play an important role in building strategic advantage. Using them for this purpose involves, *inter alia*, application of dynamic and flexible approach which takes into account past, present and future. Development of strategy of organization should be accompanied by development of resource management aimed at creating strategic resources and key capabilities.
- Management of enterprise resources is subject to the laws of situational approach. Thus practices of resources management indicate its distinctness and specifics depending on situation, such as e.g. resources management in relations with clients or managing resources in micro enterprises.
- At present, growing importance of the role of relational capital in organization operations can be noticed. It results from general and intense use of outsourcing by organizations. Efficiency of building relational capital depends, *inter alia*, from organizational forms of co-operation of enterprise with its stakeholders, as well as from existing stimuli and barriers to development of relational capital.

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