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Intangible resources in strategic management of organizations
Zasoby niematerialne w strategicznym zarządzaniu organizacjami

Abstract: The paper concentrates on showing the role of intangible assets in gaining the competitive advantage of modern organizations and their importance in strategic management organizations. The starting point of deliberations is insightful presentation of the resource-based theory basic assumptions and the discussion of the attributes of the resources that are the most valuable for contemporary organizations. In turn literature overview of different classifications of intangible resources of an organization with a particular focus on the evolution of these typologies is done. The relationship between intangible resources, intellectual capital of the organization and intangible assets of the company were indicated.

Keywords: management, intangible resources, strategic management

Streszczenie: Opracowanie koncentruje się na ukazaniu roli zasobów niematerialnych w kształtowaniu przewagi konkurencyjnej współczesnej organizacji i ich wagi w zarządzaniu strategicznym organizacjami. Punkt wyjścia rozważań stanowi wnikliwa prezentacja założeń podejścia zasobowego w zarządzaniu oraz dyskusja atrybutów zasobów najcenniejszych dla współczesnych organizacji. Kolejno dokonano przeglądu literaturowy klasyfikacji zasobów niematerialnych organizacji ze szczególnym uwzględnieniem ewolucji tych typologii. Wskazano zależności pomiędzy zasobami niematerialnymi, kapitałem intelektualnym organizacji oraz aktywami niematerialnymi przedsiębiorstwa.

Słowa kluczowe: zarządzanie, zasoby niematerialne, zarządzanie strategiczne

Introduction

The intensive growth in the interest in the issue of intangible resources of an organization is the consequence of a synergic impact of at least several factors – the emergence of a knowledge-based economy characterized mainly by the redefinition of resources, the search for new sources of sustainable competitive advantage or the dynamic development of research on reporting previously indefinable elements determining the success of an organization.

All these phenomena are positively correlated with the crystallization of assumptions of the resource-based approach as the youngest school of strategic
management, commonly treated as a research trend and not a fashion or a tendency. Its assumptions aspire to be paradigmatic and are consistent with the paradigms of the new economy\(^3\).

The focus on resources as significant elements in creating the value of an organization, usually perishable goods, available upon request, often outside a company as part of a network is the essence of contemporary tasks that the managers of organizations face.

Although there is the basic dilemma of contemporary company management – what should be taken into account when creating a strategy and a plan for the organization – the environment or the resource base\(^4\), it was at the beginning of the 21st century when G. Hamel and C.K. Prahalad\(^5\) sought the sources of competitive advantage of a company in obtaining the resource leverage. According to them, the competitive advantage of tomorrow may be obtained by concentrating resources (around key strategic objectives), accumulating them in a more effective manner (by filling resource gaps with other types of resources and thus creating added value), quickly recovering resources (as a result of a considerable reduction in time between incurring expenses and obtaining earnings) and protecting them as best as possible (Tab. 1).

Therefore, the development of the resource school results mainly from the belief that the company's interior, namely its resources, is a more stable base for the organization's strategy in the turbulence of the contemporary environment\(^6\). For this reason, the primary challenge of contemporary entities is still the deep roots in the resource concept and the pursuit of functioning in such networks where a given organization is the main navigator and its dominating position results from having unique attributes. These usually are intangible resources – they are now most often the potential for creating value and, as a result, the future of competition.

Thus, the purpose of this study is to synthesize the previous achievements with regard to managing intangible resources of an organization in the aspect of defining them, determining attributes and classifying, the discussion on the assumptions of the resource-based approach as well as resolving differences between intangible resources and intellectual capital.

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\(^3\) J. Barney, D.J. Ketchen Jr., M. Wright in the paper *The Future of resource-based Theory: Revitalization or Decline?* ("Journal of Management" 2011, no. 3) widely prove that resource-based concept is the theory.


Tab 1. Ways of generating the effect of resource leverage

<table>
<thead>
<tr>
<th>Manner</th>
<th>Actions</th>
<th>Essence</th>
</tr>
</thead>
</table>
| Concentration of resources    | focus                    | – consistent execution of uniform strategic objectives in the long term by everyone in the organization  
|                               |                          | – determining strategic objectives on the basis of a consensus |
|                               | focusing                 | – protects the company against the dispersion of resources and the incoherence of objectives  
|                               |                          | – clearly specified rights with regard to determining the objectives and the methods of their execution |
|                               | orientation              | – limiting actions to several most important objectives  
|                               |                          | – selecting only those areas in which high value seen by the customer is generated (the relation between this value and the cost of generating it should be as high as possible) |
| Accumulation of resources     | maximization of potential| – the company as a learning organization, especially in the formula of empirical and cybernetic learning  
|                               |                          | – full use of the organization's human capital |
|                               | absorbing                | – using resources beyond the organization's boundaries by purchasing licenses, using the services of subcontractors, the internalization of the partners' skills |
| Supplementing resources       | merging                  | – configuring various resources in a manner making it possible to multiply the value of each of them  
|                               |                          | – merging skills in new ways, e.g. the ability to effectively integrate various functional skills – research and development, production, marketing and sales - or ingenuity in inventing the permutations of existing skills (merging one's basic technologies in new ways) |
|                               | balancing                | – taking over these resources that multiply the value of unique features defining the company's competitiveness  
|                               |                          | – securing the company's key supplementary resources |
|                               | multiplication           | – multiple use of a given feature of competitiveness increases the effect of leverage |
|                               | adding                   | – searching for common objectives with others  
|                               |                          | – establishing effective alliances with competitors against mutual enemies |
|                               | security                 | – maximum protection of valuable resources against competitors |
| Recovering resources          | catalization of success  | – shortening the time of recovering expenses for generating resources accelerates their development  
|                               |                          | – minimizing the return on investment time for involved funds |

Source: own prepared based on: G. Hamel, C.K. Prahalad, 

Basics of the resource-based approach in management

The early roots of the resource theory of a company consist of several concepts – the theory of a company's growth, the theory of a company's resource dependence or the resource-based approach to sustainable competitive
advantage, and the contemporary form of the resource-based approach to a company was established in response to the need of a complete strategic analysis providing the instruments for the assessment of a company’s status\(^7\).

Other trends and concepts were developed on the basis of the resource-based approach, they are presently commonly explored and constitute an inseparable part of the resource theory – the concept of key competences, the theory of distinctive strategic skills, the trend of dynamic skills, the theory of organization based on knowledge, the concept of organizational learning, the concept of new forms based on technology\(^8\).

The resource-based approach is based on the assumption that the growth depends on adjusting the company's resources to market opportunities and the company develops its products and services in line with its competencies. The organization itself is treated as a reservoir of skills and resources which are supposed to generate economic rent\(^9\).

Therefore, the enthusiasts of the resource school advertise the thesis that the differences between companies in obtained results are the outcome of their unique resources which determine their competitive position, available strategies and markets, and their fundamental assumption is the thesis on the diversity of companies\(^10\). The thesis on the heterogeneous nature of companies explains generating profit and assumes that organizations differ from one another in terms of owned resources and skills, and these differences are the source of specific financial results. These existing fixed differences between companies with regard to their resources and, at the same time, the ability to achieve outstanding profits, are derived from three factors – limiting ex post competition (strong barriers in obtaining, copying and replacing key resources), imperfect mobility of resources (not all assets may be bought), limiting ex ante competition (the lack of information on which assets will be truly valuable in the future)\(^11\).

To sum up, the resource-based perspective of strategic management comes down to the following areas of perception\(^12\):
- general formulation of objectives: long-term growth due to the development, use and transfer of core competences,
- focusing competition: company against company,
- base of competition: using the widely understood company’s competences,

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• nature of competitive advantage: permanent, difficult to fake, transferable to other domains, hidden,
• strategic orientation: mainly offensive – through the transfer of competences, the further development of old and new markets, impact on competition factors,
• horizon of planning: emphasis on long-term planning,
• role of domains: storage for resources and skills (competence centre),
• task of the top management: to integrate resources and skills on the basis of a specified comprehensive concept (throughout the entire company).

Thus, the source of competitive advantage according to this theory are tangible resources, intangible resources, competences for using resources to create value, knowledge and the ability to learn as well as the ability to intentionally change the operational routines. The resource school itself is one of the four fundamental approaches to strategies which has an established theoretical and empirical base, although it is not free from certain deficiencies – a tautologic structure, the lack of symmetry or the arguable practical usability in formulating and implementing strategies.

Essence of intangible resources of an organization

According to the basic assumptions of the resource school, resources may constitute the basis of an effective strategy and contribute to building sustainable competitive advantage, according to J. Barney, when they are characterized by strategic value (the organization may use opportunities and defy hazards due to them), the scarcity of presence (at current or future competitors), the difficulty to imitate and the lack of substitutes.

The notion resources refers to all tangible and intangible elements necessary for the organization to pursue its objectives in an effective and efficient manner. They are the components of production operations useful to man and cover all elements used by the organization in its operations – they include everything that remains at the disposal of a company and may affect its functioning. Therefore, they are all goods that the companies use in their processes and actions and will signify a set of available factors – visible and invisible – owned and controlled by the company. They are also characterized as everything the organization owns or knows, and what allows the organization to pre-

13 W. Czakon, Zasobowa teoria firmy w krzywym zwierciadle, op. cit., p. 9-10.
15 R. Krupski, Rozwój szkoły zasobów zarządzania strategicznego, op. cit., p. 5; W. Czakon, Zasobowa teoria firmy w krzywym zwierciadle, op. cit., p. 11.
17 Mała encyklopedia prakseologii i teorii organizacji, PWE, Warszawa 1978, p. 293.
pare and implement a strategy improving its business performance\textsuperscript{19}. They are basically defined as assets (tangible and intangible) as well as organizational skills crucial to what a company is able to do in the strategic sense\textsuperscript{20}. In consequence, they may be tangible (financial, material and human assets) or intangible (knowledge, organizational culture, reputation, brand, relations with the environment, intellectual property rights).

Some of these resources are purchased by organizations on the markets of factors and are obtained from the outside, but many of them need to be developed by the companies themselves in the long term – then they are specific for the companies that created them and become unique. This is a dominating attribute of a company's intangible resources under the conditions of the knowledge-based economy and in the case of organizations based on knowledge.

The spectrum of properties of intangible resources is built by their subsequent features (Tab. 2):

- intangible resources individually contribute to creating value or generating growth to a small extent – they should be combined with tangible resources so that they determine the development of the organization, and the model of company management based on intangible resources should be holistic,
- the value of intangible resources is strictly related to the future of the organization – this type of resource corresponds to the company's skills and its potential with regard to growth and development in the future,
- intangible resources are more unstable compared to tangible resources – if the company's value decreases, the value of its intangible resources decreases much faster,
- the quality of intangible resources depends on the intensity of interactions between the intellectual potential of employees and other assets because they are all built around knowledge,
- intangible resources rarely directly affect the financial results of the company's operations, but they have an indirect impact through the synergy effect of relations.

Currently, there is a systemic approach to resources according to which the company is treated as a structure built from parts dependent on one another, constituting an internally consistent, dynamic whole, interdependent on the connections and cooperation among its elements\textsuperscript{21}. This also implies the concentration on the classification of resources themselves. Additionally, the resource school imposes and suggests specific, although various, typologies (Tab. 3).

J. Barney\textsuperscript{22}, as the precursor of the resource theory, defines resources as assets, skills, organizational processes, knowledge, information and other attributes of a company which make it possible to build its strategy and to improve effectiveness, divides them into the following groups:

\textsuperscript{19} J. Rokita, Zarządzanie strategiczne. Tworzenie i utrzymanie przewagi konkurencyjnej, PWE, Warszawa 2005, p. 139.
\textsuperscript{21} A. Skowronek-Mielczarek, Zasoby w rozwoju przedsiębiorstwa, „Studia i Prace Kolegium Zarządzania i Finansów”, Szkoła Główna Handlowa w Warszawie, 2012, z. 121, p. 128.
\textsuperscript{22} J.B. Barney, Firm resources and sustained competitive advantage, op.cit., p. 99-120.
- physical resources – buildings and machines, technology used in the production process, geographical location and access to raw materials,
- human resources – training, experience and knowledge of employees,
- organizational resources – structure of the organization, planning, controlling, coordination systems, informal relations inside the organization, the company’s relations with the environment.

**Tab. 2. Features of intangible resources of an organization**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting via accounting systems</td>
<td>Mostly not reported by the accounting department and invisible in standard accounting systems Usually immeasurable ROI difficult to determine, based on forecasts</td>
</tr>
<tr>
<td>Availability</td>
<td>Usually rare Multiple, various applications which do not reduce their value Simultaneous – they may be used in several places and by many people at the same time</td>
</tr>
<tr>
<td>Scope of depreciation</td>
<td>They gain value if they are appropriately used Subject to the synergy effect to the greatest extent May rapidly lose value when they cease to be difficult to imitate or gain substitutes</td>
</tr>
<tr>
<td>Easy to collect and multiply</td>
<td>In most cases, they cannot be purchased or copied in full Dynamic – they disappear if they are not used</td>
</tr>
<tr>
<td>Costs of transfer</td>
<td>Difficult to define – the more silent knowledge builds a given resource, the higher the costs of its transfer</td>
</tr>
<tr>
<td>Scope of legal protection</td>
<td>Limited and imprecise Large difficulties in enforcing property rights</td>
</tr>
</tbody>
</table>


**Tab. 3. Selected classifications of intangible resources of an organization**

<table>
<thead>
<tr>
<th>Division of intangible resources R. Hall</th>
<th>Classification of intangible resources in the concept of T.A. Stewart</th>
<th>Components of intangible resources according to B. Lev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intangible assets</td>
<td>Hard intangible assets: patents, property rights, derivative assets of the IT age – software, databases</td>
<td>Products/intangible services created as a result of discoveries or accumulated knowledge, e.g. new products, services, patents</td>
</tr>
<tr>
<td>- independent of people and may be protected by law: contracts, licenses, trade secrets, copyrights, patents, trademarks</td>
<td>Soft intangible assets – KNOWLEDGE ASSETS: skills and abilities, experience, loyalty, organizational culture</td>
<td>Customers e.g. trademarks, channels of on-line distribution, marketing alliances</td>
</tr>
<tr>
<td>Skills</td>
<td>- depend on people and it is difficult to protect them by law: know-how of employees, organizational culture, learning skills, company reputation</td>
<td>Human resources e.g. remuneration and incentive schemes, trainings</td>
</tr>
<tr>
<td>Classification of intangible resources in the concept of T.A. Stewart</td>
<td>Human resources e.g. remuneration and incentive schemes, trainings</td>
<td>Organizational structure of business and processes, information systems, controlling</td>
</tr>
<tr>
<td>Hard intangible assets: patents, property rights, derivative assets of the IT age – software, databases</td>
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</tr>
<tr>
<td>Components of intangible resources according to B. Lev</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Typology of intangible resources proposed by B. De Wit and R. Meyer

<table>
<thead>
<tr>
<th>Relational resources</th>
<th>Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relations</td>
<td>Knowledge</td>
</tr>
<tr>
<td>Reputation</td>
<td>Capabilities</td>
</tr>
<tr>
<td>all possibilities available to the company resulting from contact with the environment</td>
<td>Attitude</td>
</tr>
<tr>
<td>mean the preparation to act in a certain field</td>
<td></td>
</tr>
</tbody>
</table>

Classification of intangible resources of a company by M. Bratnicki

<table>
<thead>
<tr>
<th>Market resources</th>
<th>Organizational resources</th>
<th>Relational resources</th>
<th>Intellectual property</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. brand, reputation, channels of distribution</td>
<td>e.g. management systems, organizational structure, organizational culture</td>
<td>e.g. relations with financial institutions, relations with suppliers</td>
<td>e.g. patents, copyrights, trade secrets</td>
<td>e.g. experience, creative thinking and problem solving skills</td>
</tr>
</tbody>
</table>

Division of intangible resources according to B. Lowendahl

<table>
<thead>
<tr>
<th>Competences</th>
<th>Relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>individual</td>
<td>organizational</td>
</tr>
<tr>
<td>knowledge on skills attitudes</td>
<td>database technology methods standards processes organizational culture</td>
</tr>
<tr>
<td>reputation customer loyalty employee loyalty</td>
<td></td>
</tr>
</tbody>
</table>


From intangible resources to intellectual capital

The research on the essence of intangible resources management in organizations has evolved with time. Initially, any notions referring to "soft" strengths of the organization or its non-measurable features were used interchangeably. Intangible resources were even identified with intellectual capital of the organization in the first phase of academic discourse (this opinion was represented, for instance, by the Konrad Group). At the beginning of the 21st century, the greatest doubts were related not so much to defining or arranging intangible resources, but to their connotations with intellectual capital. The fact that knowledge in this case is not systematized still does not explicitly decide the convergence or separability of these notions.

The notion capital was very widely used in defining the intangible resources of the organization and significantly differs from its primary meaning present in accounting. Two approaches in defining the intellectual capital are

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distinguished – static and dynamic. The static approach takes into account the designation of the notion and determining the components of intellectual capital. Attention in the dynamic perspective, in turn, is focused on relations between its sub-capitals and the flows of knowledge between particular elements of the intellectual capital. Both the notion intellectual capital and its structure are presented in very different manners.

The conducted conceptual analysis indicates significant differences in perceiving the examined notions and suggests a certain logical sequence in the interpretation of notions simultaneously indicating problematic issues (Tab. 4).

Tab. 4. Comparison of the notions assets, capital, resources

<table>
<thead>
<tr>
<th>Notion</th>
<th>Definition</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>• notion with regard to accounting</td>
<td>• they are expected to bring, directly and indirectly, future benefits in the form of net revenue from operations</td>
</tr>
<tr>
<td></td>
<td>• financial assets controlled by the unit, with a value determined in a credible manner, arising from past events which will cause a revenue of economic values in the future</td>
<td>• the company may control access to them</td>
</tr>
<tr>
<td></td>
<td>• they are expected to bring, directly and indirectly, future benefits in the form of net revenue from operations</td>
<td>• they need to be measurable in cash units, and the revenue needs to be definable</td>
</tr>
<tr>
<td>Capital</td>
<td>• accounting notion</td>
<td>• it may and should be multiplied</td>
</tr>
<tr>
<td></td>
<td>• difference between the assets of a company and all of its liabilities</td>
<td>• abstract and homogeneous</td>
</tr>
<tr>
<td></td>
<td>• value of economic measures capitalized in tangible and intangible resources</td>
<td>• has an aggregated form</td>
</tr>
<tr>
<td>Resources</td>
<td>• notion with regard to management sciences</td>
<td>• specific and heterogeneous</td>
</tr>
<tr>
<td></td>
<td>• elements controlled by a company that make it possible to implement a strategy oriented on the development of the organization's efficiency and effectiveness</td>
<td>• exposed to depreciation</td>
</tr>
</tbody>
</table>


In this convention, the notion intangible resources should be perceived in the widest perspective – as non-cash elements that do not have a physical form and remain at the disposal of the organization. Intellectual capital is, in turn, this part of intangible resources which is used to create value. Intangible assets are a part of intangible resources covered by reporting in financial statements. They also include intellectual assets constituting a part of the intellectual capital (Fig. 1).

That is why generating the intellectual capital of an organization is the measure of the effectiveness of intangible resources management, and the efforts of the management staff should be focused on filling the gap between the output resource base and intellectual capital.
According to M. Warner and M. Witzel, intangible resources become intellectual capital when the organization uses them in one of the five planes in the perspective of\cite{WarnerWitzel2005}:

- innovations: they generate added value, contributing to the creation of new products and services as well as to the improvement of the existing ones; they improve production processes and deliveries, positively affect the quality, reduce costs as well as improve customer service,
- employees' skills: they improve the quality of designing and production which results in the production of better, more reliable and cheaper products and services,
- knowledge of the market: it enables the identification of market niches as well as offering goods and services convergent with customer expectations,
- knowledge of the environment: it determines the speed of responding to the actions of competitors and flexibility in the case of changes to the economic and legal environment of the company,
- internal coordination: it guarantees the effective use of the base of the company's tangible and intangible resources.

The organization's intellectual capital is created in this manner set up on three pillars: human, organizational and structural capital.

A conclusion may be drawn that the potential of the organization's competitiveness is represented by its intangible resources, and the organization's current position – by its intellectual capital. When intangible resources are examined, their components are identified while estimating the level of intangible resources – the intellectual capital is evaluated, and when intellectual capital reports are created – the organization's intangible assets are determined.

**Summary**

The conducted analyses regarding the role of intangible assets in the strategic management of organizations lead to the conclusions that managing

Intangible resources should take place both at the strategic and the operational level. From the strategic perspective, it should be focused on improving the quality of particular intangible resources and on increasing the synergy effect with control over them as a tool. In turn, from the operational perspective – it should be focused on controlling the development of particular categories of intangible resources, so that they facilitate or improve the course of internal processes, strengthen the company's relations and – after association with tangible resources – affect the quality of products or services.

In consequence, it seems that the following stages should be taken into account in the management of intangible resources:

1) Determining objectives related to intangible resources and the strategy of their development, directly resulting from the company's mission, vision and general strategic objectives.
2) Indicating intangible resources of crucial importance to the company.
3) Identifying and assessing the present state of owned intangible resources, also determining their measurement system.
4) Comparing the base of the organization's intangible resources to the general situation in the industry.
5) Undertaking actions aimed at improving the most important intangible resources.
6) Reporting the company's intellectual capital.

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