Analysis of Firm Resource Base in the Process of Resource-Based Strategies Formulation

Yordanka Yorgova, PhD Candidate
Faculty of Business and Management, University of Ruse
e-mail: yyorgova@uni-ruse.bg

Abstract: The advantages of resource-based strategies (RBS) and the lack of their application in firms in Bulgaria, according to observations of the author of the present article on Bulgarian business, lead to the necessity of clarification of the process of their implementation for practice purposes. The objective of the present article is to propose a methodology for analysis of firm resources as the beginning phase in the process of RBS formulation. In this regard research in the specialized literature in the field of the resource-based view (RBV) has been made and main considerations regarding the analysis of firm resource base have been drawn. The method used was content analysis and the materials researched include more than 200 works in the RBV. The main findings regard clarification of the term “firm resources”, systematizing resource categories, and summarizing criteria for assessment of firm resources as determinants of (sustained) competitive advantage. As a result, it is concluded that a methodology for analysis of firm resource base should include: 1) review of firm resources; 2) assessment of firm resources as determinants of competitive advantage. Future research regarding the next step in the process of RBS formulation is outlined.

Key words: Resource-Based View, Resource-Based Strategies, Firm Resources Analysis, Sustained Competitive Advantage

JEL Classification: L22, M21
I. Introduction

Contrary to the marketing approach (Porter’s five forces model), the theory of the resource-based view (RBV) assumes that the firm could build its strategy on the basis of the resources it possesses (Wernerfelt, 1984; Barney, 2007; Grant, 2010).

According to the resource-based theory (RBT), when the market, on which the company operates, goes down, then the company could redirect its activity, and, considering its resources, enter a new market. For example, a company in the railway industry could redirect its activity in the construction sector (Grant, 1991).

According to the RBV resources are also basis for implementing diversification strategy (Wernerfelt, 1984; Barney, 2007; Grant, 2010).

One of the advantages of the resource-based strategies (RBS) compared to the market-oriented strategies is that the former could be more effective in terms of fast and dynamic changes on the market. In such conditions the firm needs more reliable basis for formulating a strategy, and that basis could be its resources (Grant, 2010).

Another advantage of RBS is that they allow the company to gain profits much higher than the normal for the industry, through treating its resources in the best possible way (Peteraf, 1993; Barney, 2007; Grant, 2010).

The implementation of RBS is also means for sustaining the company’s competitiveness, through building a competitive advantage on the basis of firm-specific resources (Collis & Montgomery, 1995; Barney, 2007; Grant, 2010).

The advantages of RBS and the low popularity of RBV among Bulgarian firms, lead to the necessity of clarification of the process of their implementation for practice purposes.

Formulation and implementation of resource-based strategies is a complex process, whose operationalization is not sufficiently addressed in the resource-based literature (Barney, 2007), though there
are attempts to this end (Ford & Mahieu, 1999).

The aim of the present article is to propose a methodology for analysis of firm resources as the beginning phase in the process of RBS formulation. Such analysis would help managers in the practice.

To achieve the aim the following objectives have been formulated:

- The specialized literature in the field of RBV and RBS implementation to be researched;
- The main considerations regarding the analysis of firm resource base before RBS formulation to be outlined.

II. Materials and methods

From the literature overview (Armitage & Allen, 2008) made in the field of RBV, regarding the research question of how resource-based strategies are applied (Yorgova, 2012; Yorgova, 2013) it could be stated that the RBS formulation should be preceded by analysis of the firm resource base. The analysis of resources should aim at determining which resources are sources of competitive advantage, so that adopting a firm strategy is based on the exploitation of these resources. The analysis should give information to the management about the resources (especially intangible) the firm possesses. In this connection, it is important for managers to know what is meant under resources in the RBT.

Hence, the resource-based literature has been researched in relation to the following issues:

- Definition of firm resources;
- Types of firm resources;
- Assessment of firm resources as determinants of competitive advantage.

The method of research is content analysis (Nedyalkov, 2011) of works in the field of RBT. For materials regarding RBV in strategic management, the following data bases have been researched: The Regional Library "L. Karavelov", Ruse (RL); the University Library of RU “Angel Kanchev” (UL); COBISS of the National Library "St. тази насока (Ford & Mahieu, 1999).

Целта на настоящата статия е да предложи методика за анализ на фирмени те ресурси като първоначален етап в процеса на формулиране на РБС. Такъв анализ би подпомогнал мениджърите в практиката.

В изпълнение на целта са формулирани следните задачи:

- Да се проучи специализираната литература свързана с РБВ и прилагането на РБС;
- Да се отразят основни съображения, свързани с анализа на фирмената ресурсна база преди формулирането на РБС.

II. Материали и методи

От направения литературен обзор (Armitage & Allen, 2008) в областта на РБВ във връзка с изследователския въпрос за това как се прилагат ресурсно-базирани стратегии (Yorgova, 2012; Yorgova, 2013), може да се твърди, че формулирането на РБС трябва да се предхожда от анализ на ресурсната база на фирмата. Анализа на ресурсите трябва да има за цел да определи кои ресурси са носители на конкурентно предимство, така че възприемането на стратегията да е основано на използването именно на тези ресурси. Анализа трябва да даде информация на мениджърите с какви ресурси (особено нематериални) разполага фирмата. И в тази връзка е важно мениджърите да знаят какво се разбира под ресурси в РБТ.

Следователно ресурсно-базираната литература е проучена по следните въпроси:

- Дефиниция за фирмени ресурси;
- Видове фирмен ресурси;
- Оценка на фирмени ресурси като носители на конкурентно предимство.

Методът на проучване е контент-анализ (Nedyalkov, 2011) на разработки в областта на РБТ. За материали, свързани с ресурсно-базирания възглед в стратегическото управление на фирмата са проучени следните бази данни: Регионална библиотека „Л. Каравелов” (РБ), гр. Русе; Университетска библиотека на РУ „Ангел Кънчев” (УБ); COBISS на Националната Библиотека „Св. Св. Кирил
St. Cyril and Metodius” (NL); and the system of Science Direct.

The bibliographic information from RL shows the following results: 1 book in English; 1 article in Bulgarian (of M. Kuzmanova); 16 articles in English, which could also be found in Science Direct. None of these materials presents the analysis of firm resources in the process of RBS formulation.

The information from UL has yielded the following results: 1 book in Bulgarian (of T. Semerdzhiev); 1 book in English (of Haberberg & Rieple); 2 papers – of G. Milcheva and M. Kuzmanova; 2 books in English of J. Barney (through interlibrary borrowing). All of these materials present some aspects of the firm resources analysis.

The search in COBISS of NL is made according to the following keywords: resource-based; resource; dynamic/organizational/ distinctive capabilities; core competences/skills; distinctive competences; analysis <AND> resource – all in Bulgarian. Results show: 3 articles in Bulgarian – of L. Parashkevova – regarding only core competences.

The search in Science Direct has been made using the following keywords:
- resource-based view – 174 articles
- resource-based perspective – 5 articles
- resource-based theory – 68 articles
- resource-based strateg* – 64 articles
- combining the keywords resource-based view <OR> resource-based perspective <OR> resource-based theory <OR> resource-based strateg* – 221 articles.

Most of the articles found present empirical research regarding the application of the RBV.

In addition, a search in the global web has been conducted and the materials found from the resource-based literature are mainly theoretical – 43 articles.
III. Results and discussion

Results from the researched literature could be summarized in the following findings:

- The foundation of RBT was established from the mid 1980-s till the beginning of the new millennium, and in some aspects, the theory has continued to develop to present day.
- For the last 12 years empirical works regarding application of RBV in the strategic management of the firm have increased significantly and prevail over the theoretical works, and they are strongly based on the preceding theoretical formulations.

On the basis of the above mentioned findings, it could be concluded that considerations about the resource analysis should be drawn from the theoretical postulates in the resource-based literature. Among the scholars, establishing the foundations of the RBT are Wernerfelt, Barney, Grant, Peteraf, Prahalad & Hamel, Amit & Schoemaker, Teece, Pisano & Shuen, Collis & Montgomery and others.

3.1. Definition of firm resources according to the RBT

The notion Resources in the resource-based literature has a very broad meaning. Many scholars coalesce into the view that resources are the weaknesses and strengths of the organization, using the SWOT-analysis terminology. Others view those resources as the tangible and intangible assets of the firm (Wernerfelt, 1984; Barney, 2007). Still others coalesce into the idea that firm resources are the very factors of production, i.e. the inputs into the production process (Grant, 1993). And some share the concept that resources are stocks of available factors, that the firm owns and controls (Amit & Schoemaker, 1993).

Not all resources owned by the firm, however, are important to it. Those resources which enable the company to gain a competitive advantage are labeled specific resources or strategic resources. According to Barney (2007) strategic are only those resources, which lead to the implementa-
tion of a strategy that adds value to the company. Barney (2007) labels strategic resources as firm resources, which are only the strengths of the organization.

While Barney (2007) suggests that firm resources could be acquired on strategic factor markets, Dierickx & Cool (1989) define specific firm resources as accumulated within the organization, and as non-tradeable assets (e.g. reputation, loyalty to the brand, etc.).

Specific resources of the firm are also the so called Rumelt’s “isolating mechanisms”. “Isolating mechanisms” are those organizational processes, which due to their casual ambiguity make the organization unique, compared to its rivals. “Isolating mechanisms” are, for example, property rights to scarce resources, information asymmetries, producer learning, buyer switching costs, buyer search costs, channel crowding, economies of scale, etc. (Peteraf, 1993).

Firm-specific assets are those assets, which are difficult or impossible to imitate, as well as difficult to transfer because of transaction and transfer costs and due to the tacit knowledge they may contain. Such assets could be technological, complementary, financial, reputational, structural, institutional and market assets; as well as trade secrets, specialized production facilities and engineering experience, etc. (Teece, Pisano & Shuen, 1997).

It is assumed by the resource-based theorists that specific firm resources are intangible rather than tangible assets. Examples of intangible assets are: production experience; brand names; reputation; patents; intellectual property; trade contacts; organizational knowledge; skills, judgment and experience of individual employees; management skills; capabilities; and competences.


Competences refer to the knowledge owned by the firm (Moingeon et al., 1998), (2007) обозначава стратегическите ресурси като фирмени ресурси и ги свързва само със силните страни на организацията.


Специфични активи на фирмата са онези активи, които са трудни или невъзможни за имитиране, трудни за трансфериране поради размера на транзакционните и трансферни разходи, както и поради скритото знание, свързано с тяхното използване. Такива могат да бъдат технологични активи, допълващи активи, финансови активи, активи на репутация, структурни активи, институционални активи и пазарни активи; а също и търговски тайни, определени специализиране съоръжения за производство, инженерингов опит и други (Teece, Pisano & Shuen, 1997).

Поддръжниците на ресурсно-базираната теория споделят виждането, че специфични за фирмата ресурси могат да бъдат по-скоро нематериалните активи, отколкото материалните такива. Като нематериални активи се разглеждат най-често следните: производствен опит; търговска марка; репутация; патенти; интелектуална собственост; търговски контакти; фирмени знания; умения, пречека, опит на работниците; мениджърски умения, способности и компетенции.

specific practices that the organization has acquired and that could be used throughout the whole organization (Prahalad & Hamel, 1990; Haberber & Rieple, 2001). Capabilities are the skills that the organization has, and that it could use in various situations (Haberberg & Rieple, 2001). They refer to the ability of the organization to use its competences. (Moingeon et al., 1998).

For example, Grant (2010) states that resources are unproductive on their own, unless they are connected in teams of resources, which cooperate and coordinate with one another, and in which resources interact so that firm capabilities are developed as main sources of competitive advantage. Furthermore, according to Teece, Pisano & Shuen (1997) competences are developed when assemblies of resources are used together for the creation of new specific organizational capabilities.

Despite the distinction between resources, capabilities and competences mentioned above, the author of the present article assumes that these notions could be labeled as firm resources or firm-specific resources, and referred to as sources of competitive advantage from a resource-based view.

### 3.2. Types of firm resources

Firm resources could be classified from an accounting point of view, e.g. using National Accounting Standards or International Accounting Standards in Bulgaria.

The theorists of the RBV categorize firm resources and capabilities through different classifications – tangible and intangible (Wernerfelt, 1984; Grant, 1991); resources and capabilities (Grant, 1991); physical, human and organizational resources (Barney, 2007); financial, physical, human and organizational resources (Tsang, 1998); etc.

There could be found plenty of variations of classification of firm resources within resource-based literature. For example: Haberber & Rieple (2001); Teece, Pisano & Shuen (1997); Ferreira et al. (2011); Ordaz et al. (2003); Shen & Wang (2010).
Below is an attempt to summarize various classifications from the resource-based literature, and thus systematize categories of firm resources.

A) Assets/Resources

- **Tangibles**
  - **Physical capital** – it includes plants, buildings, facilities, location, machines and equipment, raw materials and inventory; it can be source of competitive advantage in the following cases: the firm has access to scarce resources, such as mineral raw materials and deposits, and so on; the firm uses a firm technology of low cost or high productivity, compared to technologies, offered on the market; the firm has purchased physical capital at lower price before competitors have realized the value of the capital goods (Haberberg & Rieple, 2001).
  
  - **Financial resources / assets** – they can be a source of competitive advantage, because they can be transferred into another asset – e.g. acquisition of best professionals in a certain field (Haberberg & Rieple, 2001).
    
- **Intangibles**
  - **Reputational**
    - **Reputation** – it is one of the most important intangible assets; it gives information about the company and influences the actions of clients, suppliers and competitors (Teece, Pisano & Shuen, 1997).
    
    - **Trade mark / brand name** – it is a reputational asset; it is the name that firms use on the market and has a certain symbolic meaning to the customer (Haberberg & Rieple, 2001; Wernerfelt, 1984), Barney (2007), Grant (2010), Teece, Pisano & Shuen (1997) and other theorists also show brand name as a strategic resource.

- **Institutional assets** – these are the policies of state institutions and various public organizations, which allow or do not allow certain business activities, and influence the business as a whole (Teece, Pisano & Shuen, 1997).
• **Market assets (the market)** – they represent the position of the firm on product markets; they should not be overestimated, because under conditions of fast technological change, market positions become unreliable, since there is no link between market share and innovation (Teece, Pisano & Shuen, 1997).

  o **Trade contacts** – they represent a resource which is acquired as a consequence of the performance of the company activity, and on the basis of which the company could enter a new market (Wernerfelt, 1984).

• **Technological assets** – these are trade secrets, innovative production processes, etc.

  o **Information and communication technologies (ICT)** – they cannot be a source of competitive advantage on their own because of their fast development and wide availability, but the usage of such technologies together with the firm management for accumulation of organizational knowledge could be a source of competitive advantage (Barney et al., 2001).

  o **Information systems (IS)** – they contribute to a great extend to creating sustainable competitive advantage, but usually in complementarity with other resources (human, organizational, technical, and business resources) (Wade & Hulland, 2004).

• **Firm knowledge** – it includes the information that the organization has for its internal and external environment; organizational knowledge may be explicit, tacit and fungible – it is explicit when it could be transferred in a codified way, i.e. orally or in writing; it is tacit when it could not be codified, but is revealed through its application by employees (i.e. know-how); and it is fungible when individual employees could be used for the performance of different activities (Grant, 1996).

  o **Information** – it an important resource when it allows the company to implement a strategy, which gives the company a first mover advantage in a new market (Barney, 2007).

  o **Firm (technological, proprietary)**

• **Marketetingovи активи (пазар)** – те изразяват позицията на фирмата на продуктовите пазари; те не бива да се надценяват, тъй като при условия на бърза технологична промяна пазарните позиции стават ненадеждни поради липсата на връзка между пазарен дял и иновация (Teece, Pisano & Shuen, 1997).

  o **Търговски контакти** – те представляват ресурс, който се придобива вследствие осъществяване дейността на фирмата, и на базата на който може да се излезе на нов пазар (Wernerfelt, 1984).

• **Технологични активи** – това са търговски тайни, иновационни производствени процеси и др.

  o **Информационни и комуникационни технологии (ИКТ)** – сами по себе си те не могат да носят конкурентно предимство поради бързото им развитие и широката достъпност до тях, но използването на тези технологии с менеджмънта на фирмата за натрупване на организационно знание може да представлява източник на конкурентно предимство (Barney et al., 2001).

  o **Информационни системи (ИС)** – те водят в изключително висока степен до придобяването на конкурентно предимство, обикновено при взаимодействие с други допълващи ги ресурси (човешки, организационни, технически и бизнес ресурси) (Wade & Hulland, 2004).

• **Фирмени знания** – те включват информацията, с която фирмата разполага за вътрешната и външна среда на организацията; организационното знание може да бъде явно, скрито и заменимо – явно е, когато може да се предаде в кодиран вид, т.е. устно или писмено; скрито е, когато то не може да се изрази в кодиран вид, но се проявява при извършване на действия от работник (например ноу-хау); и е заменимо, когато един работник може да бъде използван за извършването на различни дейности (Grant, 1996).

  o **Информация** – тя е важен ресурс, когато позволява на фирмата да приложи стратегия, даваща й предимството да навлизане първа на нов пазар (Barney, 2007).

  o **Фирмено (технологично, предприемаческо) ноу-хау** – фирмениято ноу-хау може да бъде трудно трансфе-
etary) know-how – firm know-how could not be easily transferred because of its tacit knowledge character, and thus it is a source of competitive advantage; besides, it is fungible, i.e. the company could produce a wide variety of products with the firm know-how (Teece, Pisano & Shuen, 1997).

• **Property rights** – they are sources of the sustainability of the competitive advantage because they enable rent appropriation from factors of production, e.g. human resources, technologies, innovations, etc. (Grant, 2010; Teece, Pisano & Shuen, 1997); property rights could be established through various types of contracts (trade, labour, civil contracts, license agreements, etc.); they include also patents, licenses, know-how, and so on.

  o **Patents** - they are intellectual assets, together with data bases, research programs, and so on (Haberberg & Rieple, 2001); a number of scholars (Wernerfelt, 1984; Barney, 2007; Grant 2010; Peteraf, 1993; Teece, Pisano & Shuen, 1997, to name a few) define the patent as a valuable and rare resource, which is not only a source of competitive advantage, but also makes it possible for rents from the patented asset to be kept within the firm.

• **Organizational capital**

  o **Organizational structure** – it is an instrument for exploiting core competences, and for strategy formulation (Prahalad & Hamel, 1990); it is an important element of firm organization that determines the usage or non-usage and the way of exploitation of resources; it is the firm formal reporting structure that gives information who reports to whom in the organization (Barney, 2007).

  o **Organizational culture** – it is a complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conducts its business (Barney, 2007); firm culture is an important condition for establishing a competitive advantage and usually it is associated with the informal management control (Barney, 2007).

  o **Trust** – it is the mutual confi-
dence that no party to an exchange will exploit another's vulnerabilities (Barney, 2007); thus the high degree of trust could be a source of competitive advantage (Barney, 2007).

- Guanxi – it means good relations (i.e. a friendship that suggests a continuous exchange of favors) and it is an aspect of the Chinese management (Tsang, 1998); besides serving as means for entering a new market, guanxi might also be a source of sustained competitive advantage (Tsang, 1998).

- Firm procedures, policies, rules
  - Routines – they form organizational competences; an organizational routine or a competence is, for example, quality, miniaturization, system integration, etc. (Teece, Pisano & Shuen, 1997).
  - Formal management control – it includes budgets and other financial reports that give information to the top management about the company's activity as well as about the performance of middle and lower managers and employees (Barney, 2007; Mihaylova, 2011).
  - Corporate social responsibility; etc.

- Organizational and managerial processes – their function is confined to the coordination / integration, organizational learning and configuration of activities within the organization (Teece, Pisano & Shuen, 1997).

- External relations of the company; Management information systems (MIS); etc.
  - Human resources – they are one of the most important sources of competitive advantage, because of the uniqueness of each individual (Haberberg & Rieple, 2001); human resources could hardly be sources of sustained competitive advantage, because usually they are highly mobile among companies; human resources include: skills / individual know-how; capacity for communication and collaboration; motivation; etc.
  - Complementary assets – they are resources, which lead to the increase of 2007); следователно високата степен на доверие може да бъде източник на конкурентно преимущество (Barney, 2007).

- Междуполно взаимоотношение (guanxi) – гуанси означава добри взаимоотношения (по-точно приятелство, предполагащо продължителна размяна на услуги) и представлява аспект на китайския менджмънт (Tsang, 1998); освен средство за навлизане на нов пазар (различно от търговските контакти), гуанси може да бъде източник на устойчиво конкурентно преимущество (Tsang, 1998).

- Фирмени процедури, политики, правила
  - Рутинни действия – те стоят зад компетенциите на организацията; организационна рутин или компетенция са пример качеството, мениджмънта, системата интеграция и други (Teece, Pisano & Shuen, 1997).

- Формален мениджърски контрол – включва бюджет и други фирмени отчети, които дават информация на топ мениджърите за дейността на фирмата и за представянето на мениджърите на средно и по-ниско ниво и на служители (Barney, 2007; Михайлова, 2011).

- Корпоративна социална отговорност и др.

- Организационни и мениджърски процеси – тяхната функция се заключава в координацията / интеграцията, организационното обучение и реконфигурацията на дейностите в организацията (Teece, Pisano & Shuen, 1997).

- Връзки на фирмата с външни институции; Управленски информационни системи (УИС); и др.

- Човешки ресурси – те са един от най-важните източници на конкурентно преимущество, поради уникалността на всеки отделен индивид (Haberberg & Rieple, 2001); човешките ресурси трудно могат да бъдат източник на устойчиво конкурентно преимущество, тъй като обикновено те са високо мобилни между фирмите; към човешките ресурси съпадат: умения / ноу-хау на служителя; способности за комуникация и сътрудничество; мотивация; и др.

- Допълващи активи – те са ресурси, които увеличават действието на
the performance of a basic resource, i.e. they lead to synergic effect; it is possible that some assets could not be used without the presence of co-specialized assets (Teece, Shuen & Pisano, 1997; Peteraf, 1993; Amit & Schoemaker, 1993).

B) Capabilities

- **Teamwork** – it is a resource, the importance of which is determined by the fact that firm capabilities emerge when resources interact within teams of individuals (Grant, 2010; Barney, 2007).

- **Production experience** – it is a resource that is accumulated within the firm as a result of realization of a company’s activity (Wernerfelt, 1984).

- **Innovation activity** – it is a firm capability, which enables the company to create new products/process/technologies, and also resources that it can use in the production; according to Oster (2011) what makes the companies different is their capacity to innovate; according to Kuzmanova (2002) for the restoration of the balance between available resources and desired goals, the organization needs to innovate its activity and resources.

- **Research and development** – R&D could lead not only to the creation of new products, but to new resources too, as well as to renewal of assets (Wernerfelt, 1984; Grant, 2010; Teece, Pisano & Shuen, 1997); this group includes: product and process development.

- **Managerial capabilities** – they could be manifested in process management, human resource management, organization of firm activity, etc.
  - *Strategic planning* – it might be a strategic resource provided that it meets certain criteria, as Barney (2007) points out.
  - *Controlling* – according to Nedyalkov (2010) controlling as a management function and a part of the management information system could also be reviewed as a strategic (complementary) resource; according to Papazov & Mihaylova (2012) strategic control plays a balancing role between different activities of the firm and organizational resources, i.e. they lead to synergic effect; it is possible that some assets could not be used without the presence of co-specialized assets (Teece, Shuen & Pisano, 1997; Peteraf, 1993; Amit & Schoemaker, 1993).

B) Способности

- **Работа в екип** – тя е важен ресурс поради факта, че в екипите се зараждат фирмени способности (Grant, 2010; Barney, 2007).

- **Производствен опит** – той е ресурс, който се акумулира във фирмата в резултат осъществяване дейността на предприятието (Wernerfelt, 1984).

- **Иновационна дейност** – тя е способност на фирмата, която й позволява създаването на нови продукти, процеси, технологии, а също и ресурси за целите на производството; според Остер (2011) това, което прави компаниите да се различават, е техният капацитет на иновиране; според Кузманова (2002) за възстановяване равновесието между разполагаемите ресурси и желани цели на организацията е необходимо непрекъснато иновиране на дейността и ресурсите.

- **Изследователска и развийна дейност** – НИРД може да доведе, освен до създаване на нови продукти, и до създаване на нови ресурси, както и до подновяване на активите (Wernerfelt, 1984; Grant, 2010; Teece, Pisano & Shuen, 1997); тази група включва: разработване на продукти и процеси.

- **Мениджърски способности** – те могат да се изразяват в управление на процеси, човешки ресурси, организация на фирмата дейност и др.
focusses on the main ones concerning production or services.

- **Capability of knowledge augmentation** – it is facilitated by the organizational learning, which is the capacity of individuals as a group to teach each other on one hand, and on the other hand – to learn from one another (Haberberg & Rieple, 2001), (Teece, Pisano & Shuen, 1997).

- **Entrepreneurship** – it refers to capabilities such as cognition, learning and usage of entrepreneurial knowledge, recognition of opportunities, capability of discovering, combining and coordinating resources and capabilities, and the ability to continuously innovate (Alvarez & Busenitz, 2001).

C) Competences

- **Technological competences** – such are, for example, the semiconductors of NEC; post-it notes of 3M; copiers and printers of Canon; the engines of Honda; and so on; the information technology of the Japanese Seven-Eleven; the design and customer psychology of Benetton; the applied finances of Merck, etc. (Haberberg & Rieple, 2001), (Prahalad & Hamel, 1990).

- **Managerial competences** – they represent the capabilities of general managers in decision-making, administration, defining organizational purpose, vision and mission, delegating responsibilities to middle management, and other activities; they could be identified as technical, human and conceptual. (Barney & Arikan, 2006), (Castanias & Helfat, 1991).

- **Competences in corporate control; competences for recognition of external change, etc.**

It could be noted that the resource-based literature regards quite a wide range of firm resources. This range could even be extended, considering the specificity of each individual firm. For example, the firm could treat as a resource the nature of the company – e.g. family business. This resource may be referred to as intangible assets (firm knowledge) or as capability of production of products or services.

- **Spособност за придобиване на знания** – тя се развива благодарение на организационното обучение, което представлява способността на хората като група в дадена организация да се обучават един друг, от една страна, а от друга – да се учат един от друг (Haberberg & Rieple, 2001), (Teece, Pisano & Shuen, 1997).

- **Предприемачество** – то се заключава в способности като познавателност, натрупване и използване на знания, разпознаване на възможностите, способност да се откриват, комбинираят и координират ресурси и способности и способност непрекъснато да се иновира (Alvarez & Busenitz, 2001).

В) Компетенции

- **Технологични компетенции** – такива са, например, полупроводниковите на NEC; самозалепващите листчета на 3M; копирните машини и принтерите Canon; двигателите на Honda; информационната технология на японската компания Seven-Eleven; дизайнът и психологията на потребителя на Benetton; и приложните финанси на Merck. (Haberberg & Rieple, 2001), (Prahalad & Hamel, 1990).

- **Мениджърски компетенции** – те се изразяват в способностите на генералните мениджъри при вземането на решения, в администрирането, в дефинирането на целите, мисията и визията на организацията, в делегирането на отговорности на мениджърите средно ниво и в други дейности; те могат да бъдат технически, човешки и концептуални (Barney & Arikan, 2006), (Castanias & Helfat, 1991).

- **Компетенции в областта на контрола; компетенции за разпознаване на външната промяна и др.**

Може да се отбележи, че ресурсно-базираната литература разглежда доста широк набор от фирмени ресурси. Този набор може дори да бъде разширен съобразно спецификата на всяка индивидуална фирма. Например, фирма може да третира като ресурс естеството на фирмата – семейен бизнес. Този ресурс може да спада към нематериалните активи (фирмени знания) или към способности (производствен опит).
Managers could easily review the resources the firm possesses, using the above presented classification as a basis, and systematizing firm resources into main categories: resources (tangible and intangible); competences and capabilities.

3.3. Assessing firm resources as determinants of competitive advantage

Resource-based literature suggests various criteria and sets of criteria, which resources should meet in order to be strategic resources and respectively sources of competitive advantage. There could be found some overlapping of notions for part of the criteria, suggested by different resource-based theorists. Some of the most popular criteria in the resource-based literature are those of: Barney (2007) – VRIN and VRIO criteria; Grant (1991); Peteraf (1993); Collis & Montgomery (1995); and Amit & Schoemaker (1993). Most of the researches in the RBV field use Barney’s (2007) sets of criteria, but also suggest other combinations of criteria (Rodriguez & Rodriguez, 2005; Moingeon et al., 1998; Wade & Hulland, 2004; etc.).

An attempt for synthesizing and combining different criteria, suggested by different RBV theorists, is made below. According to the author of the present article the set of criteria through which the resources could be assessed should include the following:

- **Value** (i.e. to add value to the firm) – resources are valuable when they enable the firm to conceive of or implement strategies that improve its efficiency and effectiveness (Barney, 2007); resources are valuable when they lead to the production of products or services, which the customers want and are willing to pay for (Collis & Montgomery, 1995).

- **Rarity** (i.e. to be scarce) – resources are rare when they are owned only by the firm or by a small number of firms; when the resources are possessed only by the firm, they are sources of competitive advantage to it; provided that the resource is possessed by a small number of companies, then the firm is in competitive
parity, and against the rest of the rivals it has a competitive advantage (Barney, 2007); scarcity shows superior access to resources and capabilities (Amit & Schoemaker, 1993).

- **Inimitability** (i.e. without imitation) – inimitability refers to the impossibility resources to be copied by the competition (Teece, Pisano & Shuen, 1997); by default the absence of imitation does not last forever, therefore it is not recommended formulating long-term strategies on the basis of resources, which can easily be copied (Collis & Montgomery, 1995); factors that make resources more difficult to imitate are, for example:
  - **Path dependency** – the acquisition of valuable and rare resources as a result of the path a firm followed through history means that competitors could hardly imitate these resources at the moment, because they lack that particular historical development (Barney, 2007); resources, accumulated within the firm, such as skills, capabilities, reputation, etc. are scarce, because it is impossible to cut short the time path necessary for their accumulation (Collis & Montgomery, 1995).
  - **Causal ambiguity** – it represents misunderstanding or less than full understanding of the link between resources and the competitive advantage they generate (Barney, 2007); it impedes competition, because would-be competitors cannot understand on which resources the firm’s success is based or they cannot understand how to reproduce the resource in question (Collis & Montgomery, 1995).
  - **Social complexity** – it refers to the resource or the system within which the resource operates; social complex resources are, for example, interpersonal relations among firm managers, firm culture, reputation of the firm among clients and suppliers, etc. (Barney, 2007)
- **Non-replicability** (i.e. difficult to replicate) – replication refers to the possibility of the firm itself to copy a resource from one economic activity to another, and usually it is hindered by the tacit knowledge embedded in routines (Teece, Pisano & Shuen, 1997); some resources and ca-

---

2007); осъществява по-добрия достъп до ресурси и способности (Amit & Schoemaker, 1993).

- Неподражаемост (т.е. без имитация) – неподражаемостта се отнася до невъзможността ресурсите да бъдат копирани от конкурентите (Teece, Pisano & Shuen, 1997); липсата на имитация по правило не продължава вечно, затова не е препоръчително изграждането на дългосрочни стратегии въз основа на ресурси, които са лесни за копиране (Collis & Montgomery, 1995); фактори, които правят ресурсите по-трудни за имитиране са например:
  - Зависимост от изминаването на път от организацията - придобиването на ценни и редки ресурси вследствие на изминаването на организацията исторически път означава, че конкурентите трудно биха могли да имитират тези ресурси на момента, защото те няма да са изминали същия път (Barney, 2007); акумулираните във фирмата ресурси, като умения, способности, репутация и др. са осъдени, защото е невъзможно да бъде съкратен времевият път на тяхното акумулиране (Collis & Montgomery, 1995).
  - Каузална неопределеност – тя представлява неразбиране или непълно разбиране на връзката между ресурсите и конкурентното предимство, което те носят (Barney, 2007); тя възпрепятства конкуренцията, тъй като желаещите да се конкурират не могат да разберат на кои ресурси се базира успеха на фирмата или не могат да разберат как да превъзходят въпросния ресурс (Collis & Montgomery, 1995).
  - Социална комплексност – тя се отнася до ресурса или системата, в която той функционира; социално сложни ресурси са, например, междусъществените отношения между мениджърите във фирмата, фирменията култура, репутацията на фирмата сред клиенти и доставчици и др. (Barney, 2007).

- Невъзпроизводимост (т.е. трудни за реплициране) – репликациите се отнасят до възможността самата фирма да копира ресурса от една икономически дейност в друга и обикновено се възприема от скритото знание в рутинните действия (Teece, Pisano & Shuen, 1997); някои ресурси и способности могат лесно да бъдат имитирани чрез репликация, например в търговията на дребно много лесно може да бъде ко-
pabilities can easily be imitated through replication, e.g. in retailing competitive advantage that derives from POS terminals, retail charge cards or extended hours of opening can easily be copied by competitors, but much more difficult to replicate are competitive advantages, based on routines (Grant, 1991).

- **Non-substitutability** (i.e. non-transferability) – this criterion puts the question whether the unique resource could be substituted with another resource; substitution of the resource suffered the steel industry with the introduction of aluminum beer cans (Collis & Montgomery, 1995); the criterion non-substitutability overlaps with the criterion non-transferability – both characteristics refer to resources for which competitors could hardly find an analogue (a substitute) or obtain them through a company acquisition / merger, because of the specific character of the resources within the firm (e.g. brand name, reputation, capabilities, etc.) (Barney, 2007; Grant, 1991; Semerdzhiev, 2007).

- **Durability** (i.e. slow depreciation) – durability concerns asset depreciation as a result of wearing out or introduction of new technologies; tangible resources tend to be less durable than intangible assets, and capabilities and competences are even more durable than intangible assets (Grant, 1991).

- **Rent appropriability** (i.e. the economic rent from resources and capabilities to be appropriated by the firm) – this criterion sets the question who gets the value that a resource creates – the value of a resource is usually a subject of bargaining among customers, distributors, suppliers, and employees (Collis & Montgomery, 1995); the appropriation of rent from employees can be realized by integrating them in teams or incorporating them in organizational routines, so that firm success is a result of teamwork and organizational routine, and is not due to individual experts (Grant, 1991).

- **Organization** – this criterion means that resources should be used by the firm organization in the best possible way (Barney, 2007).
RBT presupposes (Barney, 2007; Peteraf, 1993) that the criteria should reflect two important characteristics of resources – i.e. heterogeneity and immobility (or imperfect mobility). The first characteristic means that the company possesses a unique resource that will be a source of competitive advantage. And the second means that the resource is kept within the firm, i.e. it will be a source of sustained competitive advantage.

The effect of resource characteristics on creation and sustaining of competitive advantage is shown in Table 1.

### Table 1. Implications of resource characteristics

<table>
<thead>
<tr>
<th>Criteria for assessment / Критерии за оценка</th>
<th>Implication / Значение</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Characteristics / Характеристика на фирмените ресурси</td>
<td>Building competitive advantage / Създаване на конкурентно преимущество</td>
</tr>
<tr>
<td>Value / Ценност</td>
<td>+</td>
</tr>
<tr>
<td>Rarity / Редкост</td>
<td>+</td>
</tr>
<tr>
<td>Inimitability / Неподражаемост</td>
<td></td>
</tr>
<tr>
<td>Non-replicability / Невъзпроизводимост</td>
<td></td>
</tr>
<tr>
<td>Non-substitutability / Незаменяемост</td>
<td></td>
</tr>
<tr>
<td>Durability / Трайност</td>
<td></td>
</tr>
<tr>
<td>Rent appropriability / Усвояемост на печалбата</td>
<td>+</td>
</tr>
<tr>
<td>Organization / Организираност</td>
<td>+</td>
</tr>
</tbody>
</table>

Meeting the criteria value and rarity guarantees that resources are specific and heterogeneous, i.e. sources of competitive advantage. Organization of resources helps the value and rare resources to be used by the firm in the best possible way, i.e. organization is determinant of competitive advantage presence. Then the criteria inimitability, non-replicability, non-substitutability and durability are used for establishing the imperfect mobility of firm resources and respectively sustaining the competitive advantage.

### IV. Conclusions

In conclusion it could be noted that as a result of the research in the resource-based literature the following considerations, regarding the analysis of resources as an initial phase in the process of resource-based strategy formulation are drawn:

Покриването на критериите ценност и редкост гарантират, че ресурсите са специфични и разнородни, т.е. че са източници на конкурентно преимущество. Организираността на ресурсите спомага за ценните и редки ресурси да бъдат използвани по най-добрия начин от фирмата, т.е. организираността предопределя наличието на конкурентно преимущество. След това критериите неподражаемост, невъзпроизводимост, незаменяемост и трайност служат за установяване немобилността на фирмени ресурси и съответно за поддържане на конкурентното преимущество.

В заключение може да се отбележи, че в резултат от проучената ресурсно-базирана литература са изведени следните съображения я, касаещи анализ на ресурсите като първоначален етап в процеса на формулиране на ресурсно-базирана стратегия:
Clarifying the definition of firm resources;
Classifying firm resources, using a wide range of categories;
Assessing firm resources as sources of competitive advantage through a set of criteria.

On the basis of these considerations the methodology of analysis of firm resource base should include: 1) review of firm resources; 2) assessment of firm resources as determinants of competitive advantage.

From the RBV literature researched it could be concluded that competitive advantage could be found not only within the firm but also in overlapping of firm resources with key industrial factors (Amit & Schoemaker, 1993; Ordaz et al. 2003). This implies that the next phase in the process of RBS formulation should be the analysis of key industry factors. This analysis may be the subject of further research in the field.

Reference/Литература


