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Investment Ability as a Source of the Company's Competitive Advantage Based on Human and Financial Resources – Theoretical Outline

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ABSTRACT

In this paper, which is based on extensive research, the author provides a theoretical outline of the investment ability of companies. He understands investment ability as a type of knowledge that is necessary before the investment itself and also for its implementation. Investment ability is the ability of companies to correctly assess the feasibility and profitability of an investment project, and to define its detailed specifications, the required technology and the most favorable sources of financing, both internal and external. The purpose of this paper is to fill a gap in the field of studying the relationship between resources and investment ability. The author defines investment ability as a relatively new theoretical construct, from the point of view of resource-based theory. The aforementioned theory focuses on the company's resources and dynamic capabilities and thus offers a suitable theoretical basis for determining how internal factors, which are also observed in the field of the company's investment activity and which in a way help define its investment ability, represent a source of competitive advantage. In addition to the theoretical definition of a company's investment ability, the aim of the author's contribution is to investigate whether it is possible and feasible in practice to develop and/or adapt an instrument for measuring investment ability. Based on a thorough study of human and financial resources as key to defining investment ability, the author identifies a potential set of variables or indicators that can be used to assess and measure the investment ability of companies. The author included these measurement variables in the conceptual model of investment ability, which he developed and tested on the example of Slovenian companies.

Keywords: investment ability, human resources, financial resources, dynamic capabilities, net worth of the company, capital markets, investment risk

INTRODUCTION

Companies are facing increasingly tough economic conditions, which are strongly influenced by the currents of (de)globalization, competition, constantly changing customer requirements, and technological progress, with an increasing emphasis on digitization and recently also on advanced technologies such as 5G, the Internet of Things, autonomous robots, augmented reality, cloud computing, the processing of large databases, artificial intelligence, etc. In these circumstances, companies are trying to create a sustainable competitive advantage, as was first mentioned and defined by Porter decades ago. This, however, is not feasible in the long term without investments, especially strategic ones. Productive investments by companies, such as

investments in the development of new products/services, investments in the expansion of production/service capacities, investments in the conquest of new markets, investments in knowledge and personnel, investments in the acquisition of advanced technologies, etc., can only be realized by companies that are capable of investment.

Investment ability is a complex concept. It is a relatively new theoretical construct, which we will try to define from the point of view of resource-based theory and the theory of dynamic capabilities. Considering that in the literature it is not possible to detect a detailed focus on the definition of investment ability and on the relationships between different resources and investment ability, the purpose of this paper is precisely to fill this gap in the field of studying the relationships between resources and investment ability.

Proposing the research hypothesis that human and financial resources affect the investment ability of companies, the paper studies how resources, especially human and financial resources, define a company's investment ability. We assume that the success of a company's operations depends on how successful the company is in utilizing investment in the process of maintaining and increasing its core competencies. According to Amit and Schoemaker (1993), capabilities are the ability of a company to use resources through organizational processes. Grant (1991), on the other hand, views capabilities as the ability of a group of resources to perform a task or activity, such as an investment. It is about the skills and knowledge of the employees. If we connect the specific professional knowledge and experience of the employees with the investment ability of a company, we quickly realize that it is the least tangible and most difficult area for analysis.

This constitutes a short introduction to the presentation of investment ability as a latent endogenous construct in our conceptual model. In addition to the theoretical definition of a company's investment ability and the determination of the key factors or sources that influence it, the goal is to investigate whether it is possible and feasible in practice to develop and/or adapt an instrument for measuring investment ability.

On the basis of a detailed literature review, we first try to define the concept of investment ability using resource-based theory and the theory of dynamic capabilities, and then examine what those resources and dynamic capabilities that influence or even define investment ability are, while drawing attention to the consistent divide between resources and dynamic capabilities.

Human resources are certainly the most important sources of a company's investment ability. In this paper, we present them through the prism of different competencies and routines. Competence is the ability of the performer to carry out activities in a given situation in an efficient, fast, and organized manner. We cannot measure it directly, but we can estimate it based on the performance achieved. By contrast, organizational routines crucial for the development of investment ability are normal patterns of activity that are built from a sequence of coordinated activities of individuals and can be predicted. Within the framework of internal factors that affect a company's investment ability, we highlight the company's net worth. We present it in the neoclassical investment model together with external financing costs and investments.

An important role in the study of investment ability when it comes to external sources of financing is attributed to capital markets. We highlight three main challenges we face when we empirically verify and analyze the effects of capital market imperfections on the investment decisions of individual companies. We emphasize the need to measure the company's investment opportunities, which we consider as one of the most important variables of the company's investment ability.

Investment risks are associated with investment decisions, the detection, control, and management of which have a strong impact on the company's investment ability. This is also an area that we discuss in detail in this paper.

When considering sources of financing as one of the key measurement variables of a company's investment ability, we necessarily touch upon the limitations of different types of capital and consider their effects on the company's investment ability. Thus, when choosing investment projects, we encounter the problem of moral hazard, which is connected to personal exploitation during the project implementation phase. We present it in detail with a special model that includes companies, financial institutions, and investors. The role of intermediaries is to monitor and supervise companies to mitigate this problem.

We shed light on the investment ability of companies from the point of view of sources of financing, with particular interest in the direct and indirect financing of investments. Companies are classified into three categories according to their demand for capital from intermediaries, financial institutions. On the one hand, there are companies that have sufficient capital, are capital-adequate and financially capable of investing. On the other hand, there are companies that are not capital-adequate and are financially unfit for investment. In between the two extremes are companies that can invest, but with the help of capital obtained from an intermediary. These companies are less capable of investing. With this model, we want to emphasize the role played by the distribution of capital among different sources from the point of view of the company's investment ability.

In the last section of the paper, based on a preliminary thorough literature review, we make a selection of those variables that could be called indicators with which we can evaluate and even measure investment ability. For greater transparency, we also present them graphically. Finally, let us add that these variables were included in our conceptual model of investment ability tested in the scope of our extensive research on the example of Slovenian companies (Bukvič, 2020).

LITERATURE REVIEW

In the literature on strategic management, different explanations of the sources of a company's competitive advantages began to appear. Many authors (Barney, 1991, 2021; Barney and Clark, 2007; Christensen, Laegreid, Roness, and Rovik, 2004; Eisenhardt and Martin, 2000; Barney and Mackey, 2018; Davis and DeWitt, 2021; and others) who deal with resource-based theory and the theory of dynamic capabilities suggest that in achieving a competitive advantage, it is necessary to focus primarily on the internal factors of a company's operations if we are to comprehensively explain the sources of a company's competitive advantage. Examples are the theory of achieving competitive advantages based on resources (Barney, Ketchen, and Wright,

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2021, and others) and its extensions, such as the concept of dynamic capabilities (Teece, 2017 and 2018, and others). Resource-based theory or the theory of dynamic capabilities thus reveals a whole series of internal factors that can also be found in the field of a company's investment activity and which in a certain way also define its investment ability.

Resource-Based Theory

In the field of strategic management, according to Davis and DeWitt (2021), the view of the company through the prism of resources became dominant, but had surprisingly little influence in organization theory itself. However, according to the two authors, there are already signs of an existential crisis in both areas, as traditional companies are increasingly unsustainable due to the transformation caused by the digital revolution in production markets and capital and labor markets.

According to Freeman, Dmytriyev, and Phillips (2021), resource theory is incomplete in its current form, but it can become more comprehensive if it adopts four essential elements from stakeholder theory, i.e., normativity, sustainability, looking at people outside of resources, and cooperative behavior. Both theories are fundamental theories in management, and knowledge of them has grown exponentially over the past 35 years. However, their paths of development, even though they stem from the same origin, have largely been parallel. Only recently have the two theories been given the opportunity to learn from each other.

Barney, Ketchen, and Wright (2021) ask how resource-based theory today reflects on value creation, including the definition of its dependent variables. Among other things, they are interested in the following questions: Is resource-based theory static? How important are stakeholders in resource-based theory? Does resource-based theory also represent a theory of the company? And does resource-based theory have strong implications for management? With their answers to these questions, the authors lay the foundations for the further development and application of resource-based theory.

Several decades ago, some authors suggested that "performance" in strategic management research should be replaced by the concept of "competitive advantage" (Porter, 1985). But "competitive advantage" had its ambiguities (Lieberman, 2021). Some authors have used the term "competitive advantage" to denote the ex-ante causes of a company's better performance. For example, a company that has certain types of resources and capabilities or operates in certain industries may have a competitive advantage that may in turn lead to better performance (Barney, 1991). Others have used the term to refer to a company's subsequent financial results – a company that generates more net profit than its competitors has a competitive advantage – and have been agnostic about the cause or causes of that competitive advantage (Barney and Mackey, 2018).

Barney (1991) proposed an equilibrium model of sustained competitive advantage, according to which a company has a sustained competitive advantage when potential competitors stop trying to imitate the resources and capabilities of the successful company.

Although the theory of strategic management explains the existence of the company well, it is even more interested in explaining the organization of the creation and appropriation of

economic value (Barney, Ketchen, and Wright, 2021). This also applies to ecosystems (Jacobides, Cennamo and Gawer, 2018). In strategic management, the theory of the company is only a special case of a broader theory of the organization of the creation and appropriation of economic value. In other words, the question of whether resource-based theory can be a theory of the company is in a sense the wrong question. The real question – from the point of view of strategic management – is: can a resource-based theory become a theory of the organization of the creation and appropriation of economic value?

At its core, strategic management has always been and continues to be an applied field, meaning that researchers generally prefer to develop and rigorously test theories that explain why some companies outperform others and have practical implications for managers.

According to Barney, Ketchen, and Wright (2021), resource-based theory is strongly related to such an orientation and is very much aligned with the prescribed goal. However, the theory also recognizes limitations to the extent to which any theory can be used to derive managerial prescriptions for improving business performance. These restrictions determine how valuable, rare, and expensive it is to replicate these recipes. For example, resource-based theory can be used by less successful companies to achieve competitive parity. This can be done by closely studying the sources of success of above-average successful companies and then imitating all their resources and capabilities as best as possible. Resource-based theory can also be used by less successful companies to identify alternative ways of creating economic value. In given environments, less successful companies may find that they cannot imitate the resources and capabilities of successful companies, at least not in a way that would generate economic profit. In order to achieve the desired level of performance, the cited authors argue that these companies must identify their own scarce and expensive resources and capabilities to imitate and find ways to make these resources and capabilities generate higher economic value than the current level.

Resource-based theory explores how performance varies among companies in terms of valuable, scarce, and imperfectly imitable resources and the exploitation of their potential. Resource-based theory as well as competitive advantage theory explore heterogeneity in performance through the lens of a company's comparative advantage in resources and competitive advantage in the marketplace. Competition refers to competitive situations where the same companies compete with each other in several markets. Varadarajan (2023) argues that as the degree of "multi-market" contact between companies increases, the intensity of competition between them at the market level will decrease due to mutual forbearance. Drawing on resource-based theory and the theory of "multi-market" competition, the author provides insight into whether the constraints of "multi-market" competition prevent companies from exploiting the full potential of their resources, or whether their resource advantages outweigh the "multi-market" competitive constraints. According to Varadarajan (2023), it is a sustainable competitive advantage.

In conclusion, resource-based theory can be used by companies that have the potential to achieve superior performance to fully exploit that potential. They do this by identifying the scarce and expensive resources and capabilities they already possess, and then finding ways to use those resources and capabilities to increase their ability to create economic value. If these

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resources and capabilities are rare and costly to imitate, the value created by exploiting them will be a source of sustained competitive advantage (Barney, Ketchen, and Wright, 2021).

Theory of Dynamic Capabilities

An in-depth look at the existing literature on dynamic capabilities shows that, so far, emphasis has been on the development, justification and evaluation of individual dynamic capabilities using conceptual and empirical methods. Sunder and Ganesh (2021) argue that studying dynamic capabilities in isolation may not offer full practical value. Since companies are complex systems, only multiple combinations of capabilities and their interrelationships in a system can led to sustainable competitive advantage. The authors point to interactions between dynamic capabilities and their synergies, with which companies realize their strategic goals. For example, the manager of an investment project will benefit from the use of interactions between dynamic capabilities, such as flexibility in the implementation of the investment, in the selected modern technologies, in the efficiency and agility of the supply chain, etc.

Dynamic capabilities allow companies not only to adapt to the business environment, but often to try to shape it as well. While systems theory emphasizes internal stability over time and homogeneity among similar systems, dynamic capabilities include an explicit management/leadership role that allows system change to be initiated from within, a source of heterogeneity among firms. Dynamic capabilities are part of a system that includes resources and strategy, which, according to Teece (2018), together determine the level of competitive advantage that an individual company can gain over its competitors.

The intellectual origins of dynamic capabilities can be traced back to the works of Joseph Schumpeter, Edith Penrose, Herbert Simon, and others who were engaged in the analysis of business operations.

Many managers have an intuitive understanding of the business and its environment at a systems level. By making the key elements and interrelationships more explicit, the dynamic capabilities framework can help guide managers toward better prospects for long-term sustained performance (Teece, 2018).

RESEARCH METHODOLOGY

In the introduction to this paper, we presented the concept of the investment ability of companies itself and the basic concepts related to it. Given that this paper proposes a theoretical outline of a company's investment ability as a source of competitive advantage, we use the scientific method of description, as well as the scientific methods of classification, comparison, analysis, and synthesis.

In order to confirm the research hypothesis stated in the introduction and explain the factors involved in investment ability, let us start with a conceptual model of the connections between factors or resources and investment ability. In the empirical part of the aforementioned relevant research, the results of which are not discussed in this paper, we used exploratory and confirmatory factor analysis and the method of linear structural equations.

INVESTMENT ABILITY OF COMPANIES FROM THE PERSPECTIVE OF RESOURCE-BASED THEORY AND THE THEORY OF DYNAMIC CAPABILITIES

Investment ability refers to all types of knowledge that are necessary before the investment itself and also for its implementation. Investment ability includes the ability to assess the feasibility and profitability of an investment project, the ability to define its detailed specifications, the required technology and the selection of the most favorable sources of financing, the ability to negotiate in connection with the procurement of productive assets (cost aspect and financial aspect), knowledge and skills for the construction of the facility and the installation of the equipment, knowledge and skills required to carry out the entire engineering, the ability to acquire and train the appropriate personnel required by the investment, and finally the ability to plan the basic process (Morrison, Pietrobelli, and Rabellotti, 2008).

Experts who work in companies at the implementation of concrete investment projects and the exploitation of newly introduced technologies as a result of the implementation of investments, need technical expertise both within the company itself and outside it. Knowledge of the company's technology is crucial for the effective connection of new and old systems and the optimization of the company's investments in technology (Peljhan, 2012, p. 83). If the development personnel and technologists in the company are well acquainted with the business needs and business processes, they will have a better insight into individual technological needs in the future. How they respond to unplanned requests is also important. If they know the company's operations, tactics, and goals, they can roughly anticipate future needs. The alignment of the company's strategic plans with its organizational goals and vision depends on the knowledge of the employees involved in the planning and resource management process.

According to Capon and Glazer (1987), technical knowledge refers to the knowledge needed to prepare applications using available technology and how to use them to prepare products and services. Technical knowledge enables companies to successfully manage technical risks in connection with individual investments. Barney and Clark's claim (2007) about the development of information technology can be generalized to all the other technical areas in the company: although technical skills are important in the development of IT, they are often not a source of a lasting competitive advantage. These skills are certainly valuable, but they are not heterogeneously distributed across companies. If they are, they are usually highly mobile. Companies that do not have the required specific technical skills needed to realize their investments can hire technical consultants and contractors.

As already mentioned, technological capabilities and so-called linkage capabilities are closely tied to investment ability. Technological capabilities are the knowledge and skills – technical, managerial, or organizational – that companies need in order to effectively use the hardware (equipment) and software (information) provided by technology and to carry out any process of technological change (Morrison, Pietrobelli, and Rabellotti, 2008). Company capabilities are company-specific institutional knowledge, which consists of individual knowledge and skills and experience of employees acquired over time. Technological change is the result of purposeful activities carried out by companies with technological efforts. This knowledge is neither exogenous nor automatic. It takes individual effort to make a range of hidden technological elements explicit and to make the most of the technological effort at the frontier

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of a given technology. There is a much greater effort that must be made by each company to acquire knowledge, to implement it, to absorb it, and to build it up to the level required in production (Morrison, Pietrobelli, and Rabellotti, 2008).

Technology simply cannot be transferred to a company as a physical product. Its effective implementation must include other important building blocks. The mere purchase of equipment and instructions for its management, patents, plans or "blueprints" do not guarantee that the technology will be effectively used and exploited. Constant great efforts are needed to improve technical knowledge and skills, to acquire the necessary equipment and relevant knowledge. Learning plays a central role here, and success depends on the efficiency with which markets and institutions function under conditions of uncertainty. If costs and uncertainties and knowledge leakage from the company are very high, coordination with other companies in the procurement-supply chain is extremely difficult. Simple knowledge cannot be learned even if it were effective. Following Lall (1990, 1992, 2001), certain principles apply to technological capabilities when it comes to different levels of complexity. Thus, Lall distinguishes between investment capabilities, production capabilities, and linkage capabilities.

We have already presented the first. Some core capabilities must be developed by the company itself, and also expanded accordingly over time. Moreover, many technological capabilities are interconnected and partially overlap. There is a strong interdependence between them. Production capabilities include knowledge and skills for the efficient operation of a production plant with a given technology and for its improvement over time. Part of these capabilities are capabilities related to process, product, and industrial engineering. Among the infinite number of operations that require appropriate knowledge and skills are the assimilation of process and product technologies, their adaptation and improvement, troubleshooting, quality control, expansion of production capacity, workflow planning, inventory control, productivity monitoring and coordination of different production phases and departments, and finally process and production innovations that follow basic research activities (Morrison, Pietrobelli, and Rabellotti, 2008).

Linkage capabilities are required due to high transaction costs. In limited and inefficient markets, companies often develop special market linkages that correspond to their efficient and rational strategies. Therefore, special knowledge and skills are needed to be able to establish technological connections between companies, between companies and suppliers, and with the scientific and technological infrastructure. In each group there are technological capabilities with different levels of technological complexity. These are used for routine, flexible, and repeatable or innovative and risky activities (Morrison, Pietrobelli, and Rabellotti, 2008). According to Lall (1990), different levels and degrees of depth of technological capabilities explain different levels of industrial performance in individual countries. Of course, the described approach does not assume that all companies will build capabilities in a linear sequence of processes, nor does it mean that companies will start and end at the same stages (Figueiredo, 2006).

The competitive lag of a company in a certain area due to inadequate and insufficient skills forces the company to look for specific solutions. The company can train its own personnel for certain technical skills, it can hire new personnel who already have such skills, or it can direct

its own personnel to education in order to acquire the appropriate technical skills. Technical skills are of course very valuable for companies, but unfortunately, they usually do not meet the additional conditions of heterogeneous distribution in companies and high immobility (Peljhan, 2012, p. 84). It is for these reasons that it is highly unlikely that technical knowledge can be used to gain a lasting competitive advantage. According to Barney and Clark (2007), a proper resource provisioning process, which manifests itself in providing the right resources at the right time, is key to obtaining a sustainable competitive advantage.

THE RELATIONSHIP BETWEEN A COMPANY'S RESOURCES AND DYNAMIC CAPABILITIES IN THE LIGHT OF ITS INVESTMENT ABILITY

There is a significant difference between company resources and a company's dynamic capabilities. Resources are inputs to the production process. Individual resources of the company include equipment, knowledge and skills of employees, finances, intangible rights such as patents and trademarks, etc. However, only a few resources are inherently productive. Production activity requires the cooperation and coordination of teams with available resources. The capability of a company is the capacity or ability of the team to carry out a certain task or activity with the available resources, say, to carry out a certain investment project. While resources are the source of a company's capabilities, capabilities are the main source of its competitive advantage (Grant, 1991).

Competitive advantage is influenced by the company's investment ability, which is defined by the relevant resources. Hofer and Schendel (1978) suggest six main categories of resources: financial resources, physical resources, human resources, technological resources, reputation, and organizational resources. The problem arises because intangible resources cannot be valued. The heterogeneity and incomplete transferability of most intangible resources prevent or make impossible the use of market prices. Cockburn and Griliches (1988) use the difference between a company's market value or the value of shares and the replacement value of the company's tangible assets as one possible approach to the valuation of intangibles. This relationship basically defines the so-called q investment theory. Here, Tobin (1969) defines q as the ratio between the market value of the company's capital and its replacement cost. The market value of a company's capital is determined on the capital market and is equal to the product of the number of issued shares and their stock exchange rate. A company's replacement cost of capital depends on conditions in the capital goods sectors. If the demand for capital goods is high, their price will rise.

If $q > 1$, it encourages companies to increase their capital, because when capital as a resource is already in the company and ensures the production of products and services, it is valued more than it's cost of acquisition.

If $q < 1$, companies should discard capital as useless and close production facilities.
Dixit and Pindyck (1994) advocate the thesis that companies should delay their growth, expansion or contraction for a certain period of time, and commence them only if q is larger or smaller than 1.

A company's internal resources and capabilities determine its basic strategic direction and are the primary source of its profits. A company's ability to achieve a rate of profit that is greater

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than its cost of capital depends on the attractiveness of the industry in which the company is active and its competitive advantage. The finding that competitive advantage rather than the external environment is the primary source of differences in profits among companies directs attention to the sources of competitive advantage. For example, the ability of a company to create a cost advantage requires it to have efficient production facilities, modern processing technology, which is related to the investment ability of the company to maintain this advantage in the long term, low-cost raw materials, and cheap labor. If we also take into account the company's market power, which provides it with a monopoly rent, we circle back to the company's resources. The main condition pertaining to a company's market power is the existence of entry barriers (Baumol, Panzar, and Willig, 1982). Barriers to entry into the industry in which a particular company is located are based on economies of scale, patents, advantages derived from experience, brand reputation, etc. Competitors do not have these advantages, or they can acquire them slowly and with high expenses, with the necessary investments.

According to Grant (1991), the main task of resource-based theory pertaining to the creation of company strategy is the maximization of rent over time. That is why Grant insists on exploring the relationship between a company's resources and capabilities. But there are also direct links between resources and profitability, which raises the following questions about strategic resource management: First, what opportunities exist for the company to economize its use of resources? A company's ability to maximize productivity is particularly important for tangible resources. And second, what are the possibilities for the company to make more intensive use of the existing assets and to generate profit with them? Greater returns can be generated by moving existing assets to more productive uses.

Grant (1991) defines a company's capabilities by asking what a company can do to produce a business outcome resulting from the operation of various sets of resources. A company's capabilities are identified and evaluated using a standard functional classification of the company's activities. Snow and Hrebiniak (1980) studied company capabilities – calling them "special competences" – according to ten functional areas. Functional capabilities, for example, are those seen in the context of product development, market research, human resource management, financial control, implementation management, etc. Hamel and Prahalad (1990) use "core competencies" to describe these core strategic capabilities of a company. Under this term, they understand group (collective) learning in the company, especially how to coordinate different production skills and how to connect different technologies.

If the key problem in assessing a company's capabilities is to maintain objectivity, on the other hand, it is a challenging task to assess capabilities compared to those of the competition. A successful company strategy is one in which the company knows how to exploit its relative advantages, while an unsuccessful one is one in which the company expands its activities beyond the scope of its capabilities.

Creating capabilities is not simply about pooling resources. According to Grant (1991), capabilities include complex patterns of coordination between people and between people and other resources. The perfection of such coordination requires learning based on constant repetition. Nelson and Winter's concept of "organizational routine" (1982) is instructive to

understand the anatomy of a company's capabilities. By routine we understand skill, expertise, regular and usual work process (SSKJ, 2014). Organizational routines are habitual and predictable patterns of activity that are built from a sequence of coordinated activities by individuals. At its core, a capability is a routine or several interacting routines, and a company is just a large network of routines. This includes the sequence of routines that control the passage of raw materials and components through the production process, and top management routines include routines for controlling, monitoring the performance of organizational unit operations, for investing, and for strategizing. Although several decades have passed since the publication of the article by the aforementioned authors, explanations of the concept of routines are still full of ambiguity and progress in this area is slow (Avery, 1996). There is also no unified academic vision of the concept of routine (Reynaud, 1998). The current understanding of routine remains superficial (Jones and Craven, 2001).

Becker (2004) conducted a systematic and comprehensive review of the literature that was supposed to contribute to the conceptual development of routines. He came to the following conclusions. In modern literature, the concept of routines is built on the notion of patterns. Literary sources support a definition of routine that represents repeated interacting patterns. The emphasis is on the collective nature of routines as opposed to the individual nature of habits. Routines are central to economic and business phenomena because of their role in businesses and other organizations. Routines have the following role in companies: routines coordinate and control, routines represent a "truce" in the sense that they build on the micro-political stability that allows routines to function smoothly, routines are a key mechanism in the management of cognitive resources, routines help manage uncertainty, routines can lead to inertia promoted by cognitive sunk costs, routines can provide stability, but also play a role in the implementation of changes, routines are interconnected with other routines, and routines contain knowledge, including tacit knowledge. Based on this definition of routine, Becker (2004) summarizes the following characteristics of routines from the literature. Routines are repeatable; their repeatability makes them persistent and allows for predictability. Routines are interacting patterns and collective in nature. Routines run on their own and do not require conscious thought. Routines are a process phenomenon. Routines are context-specific, specific, and transferable only to a certain extent, which means that they only represent local best solutions, not global ones. Routines are shaped by the past and are path-dependent, meaning that they involve interdependent pathways that have a positive or negative impact and an undefined goal to which they naturally converge.

According to Grant (1991), the concept of organizational routines offers instructive insight into the relationships between resources, capabilities, and competitive advantage. There is no predetermined functional relationship between a company's resources and its capabilities. A key building block in the relationship between a company's resources and capabilities, in this context also its investment capabilities, is the company's ability to achieve cooperation and coordination between them. Company culture, values, traditions, and leadership are critical incentives for employee cooperation and achievement. They can be seen as intangible resources that are the common building blocks of all organizational routines of the company. Routines are to a company what knowledge is to an individual. Just as an individual's knowledge is acquired through practice over time, so the company's knowledge is developed and preserved through experience. Barney (1986) highlighted organizational culture as one of the

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key intangible resources. Gerhart (2009) found that industry explained for 19% of the variance in the means of organizational culture. Differences in organizational culture may partly correspond to company differences in employee characteristics (Gerhart and Feng, 2021). Hartnell, Ou, Kinicki, Choi, and Karam (2019) reported a strong correlation between the business performance of companies and individual elements of organizational culture, such as clan power (0.46), adhocracy (0.48), market (0.44), and hierarchy (0.45).

A company's capabilities vary in their complexity. Some abilities may come from the contribution of only one of the sources. Other routines require complex interactions involving the participation of many different resources. Complexity is particularly important for a sustainable competitive advantage. Grant (1991) argues that the returns generated by a company's resources and capabilities depend on two key factors: first, the sustainability of the competitive advantage that the company's resources and capabilities provide, and second, the company's ability to appropriate the rents generated by the company's resources and capabilities.

Resource-based approaches to the theory of competitive advantage suggest four characteristics of resources and capabilities that, according to Grant (1991), are likely to be important determinants of the sustainability of a company's competitive advantage. These are constancy or durability, transparency, transferability, and repeatability.

Resource sustainability is changing dramatically. Thus, technological progress shortens the useful life of fixed assets, such as equipment, and technological resources in which companies continuously invest. On the other hand, intangible assets are amortized relatively slowly and can be maintained with replacement investments. A company's capabilities have a certain potential that allows them to last longer than the resources on which those capabilities rely. This is explained by the replacement of individual resources, including human resources, when the existing resources are used up. One of the most important roles played by organizational culture in maintaining a company's competitive advantage is precisely maintaining support for the company's capabilities, namely by socializing new employees (Barney, 1986).

A company's ability to sustain its competitive advantage over time depends on the speed with which other companies can imitate its strategy (Grant, 1991). Imitation requires the competitor to cope with two problems. The first is the problem of information, and the second is the problem of the duplication of strategy. The first problem arises due to incomplete information about two types of relationships. If a company is to imitate its competitor's strategy, it must first acquire the capabilities that form the basis of the competitor's competitive advantage. Then it must determine what resources are needed, what investments are needed to achieve these capabilities. Grant (1991) calls this relationship the transparency of competitive advantage. The second problem relates to that company capability which requires a complex pattern of coordination between many different resources and is more difficult to understand as a capability that exploits only one dominant resource. This is especially true for more demanding investment projects, the implementation of which, in this context, shows the actual investment ability of the company.

After an existing company or a new company entering an industry has arranged the necessary resources for quality operations, it needs to imitate the set of resources and capabilities required to issue a competitive challenge (Grant, 1991). The primary sources of these resources and capabilities are the markets for these inputs. Most resources and capabilities are not freely transferable between companies. The imperfection in their transferability occurs due to geographical immobility, incomplete information, the specific resources a particular company has, and also due to the immobility of the company's capabilities themselves.

The last, fourth characteristic of the company's resources and capabilities, is reproducibility, reproduction, where the imperfect transferability of resources and capabilities limits the company's investment ability to purchase assets and use them to imitate successful companies (Grant, 1991). Another way in which a company can acquire a resource or capability is through internal investment. Indeed, some resources and capabilities can simply be copied by reproduction. It is much more difficult to do this with those capabilities that have their roots in very complex organizational routines. Competitive advantage depends on the very stocks of resources and capabilities that the company has, which also reflects its investment ability.

Exposure to developed foreign markets increases learning opportunities within companies, enhances their competencies and capabilities, and potentially fosters greater innovation. Prašnikar, Redek, and Drenkovska (2017) conducted research on the example of Slovenian companies, which showed that export-oriented companies, their competences and capabilities, and innovation are closely related. All these resources also increase the investment ability of companies.

In summary, an analysis of the rent-generating potential of resources and capabilities leads to the conclusion that the most important resources and capabilities of a company are those that are durable, fixed, difficult to identify and understand, not completely transferable, not easily reproducible, and are owned and controlled by the company. These are also important building blocks of the company's long-term investment ability.

FACTORS AFFECTING THE INVESTMENT ABILITY OF A COMPANY

In recent decades, several researchers have expanded the conventional models of long-term business fixed investment to include the role of "financial constraints" in the definition of investments. Thus, Hubbard (1998) continued his research in two steps. First, many models of asymmetric information and the very problems of incentives in capital markets cause the information costs and internal resources of a company to affect the cost of external financing sources (shadow cost of external funds) of long-term investments, assuming that investment opportunities are constant all the time. Second, authors of empirical studies have focused on how to isolate the effects of information costs and internal resources on investment independently of changes in investment opportunities. The main findings of these studies are: (1) that, ceteris paribus, investments are closely correlated with the drivers of changes in the company's net worth or internal sources of financing, and (2) that this correlation is most important for those companies that are likely to be faced with information related to capital market imperfections. Therefore, we are interested in how investments and the investment ability of companies are related to factors that change the net worth of a company. The net worth of a company is all those elements that represent the company's own financing. The

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balance sheet shows the actual difference between assets and liabilities. It mainly consists of equity (money contributed by partners, plus reserves held by the company and the profits it has generated) (Rawell, 2023). According to international standards, capital also includes other items, such as accounting adjustments. The profit generated by the company and not distributed among the owners is included in the capital of the company, so the main mission of the company's managers is to increase the capital. The higher the net worth, the greater the value of the company.

The interest shown by modern researchers in the connection between "internal sources of financing" and investment decisions reflects two aspects: the macro aspect and the micro aspect. The macro aspect is manifested in the fact that cyclical movements in investments occur on a scale that is too large to be explained by market indicators of expected future profitability or the owner's cost of capital. This has led some macroeconomists, in their propagation of relatively small shocks, to identify financial factors that correspond to "accelerator" models and that explain investment data relatively well.

The micro aspect that is the subject of this discussion describes the consequences of information imperfections in financial markets. In this research, problems of asymmetric information between borrowers and lenders lead to the emergence of a gap between the costs of external financing and internal financing.

Existing models have so far focused on the costs of adverse selection and moral hazard, which created friction in the capital markets. In the case of incomplete information about the quality or riskiness of the borrowers' investment projects, the opposite choice leads to the creation of a gap between the cost of external financing, originating from the uninformed capital market, and the cost of the company's own financial resources. Due to the problems of incentives and the expensive control of managerial activities, external providers of financial resources demand a higher return from companies, with which they can then compensate for the costs of control and the potential moral hazard associated with managerial control over the allocation of investment resources.

The Net Worth of a Company as An Important Indicator of The Company's Investment Ability

Given that the discovery or availability of investment opportunities is one of the important determinants or indicators of investment ability as a latent construct in our conceptual model, let us try to present investment opportunities in the light of the connection between a company's net worth and capital. If the net worth of the company is high, the company is more capable of investing. A simple graphical analysis (Hubbard, 1998) illustrates the link between a company's internal financial resources and capital investment in models of imperfect information. Figure 1 shows the company's demand curve for capital and the supply curve of financial resources to the business sector. The volume of capital is represented on the x-axis and the cost of capital on the y-axis. The demand curve has a negative slope; an increase in the cost of financial resources reduces the desired stock or capital stock of the company.

In the neoclassical investment model, the supply curve is represented by a horizontal segment at the market real interest rate r, which is adjusted for risk. In this case, the first best volume of

capital Ko determines the intersection of the demand curve D and the supply curve S at the interest rate r. This means that for the volume of capital Ko, the expected marginal rate of return on capital is equal to the interest rate.

The position of the demand curve D determines the investment opportunities available to the company. This is the expected future return on capital. The positions of the supply curves are determined by the cost of capital, i.e., in our example in Figure 1, the market interest rate.

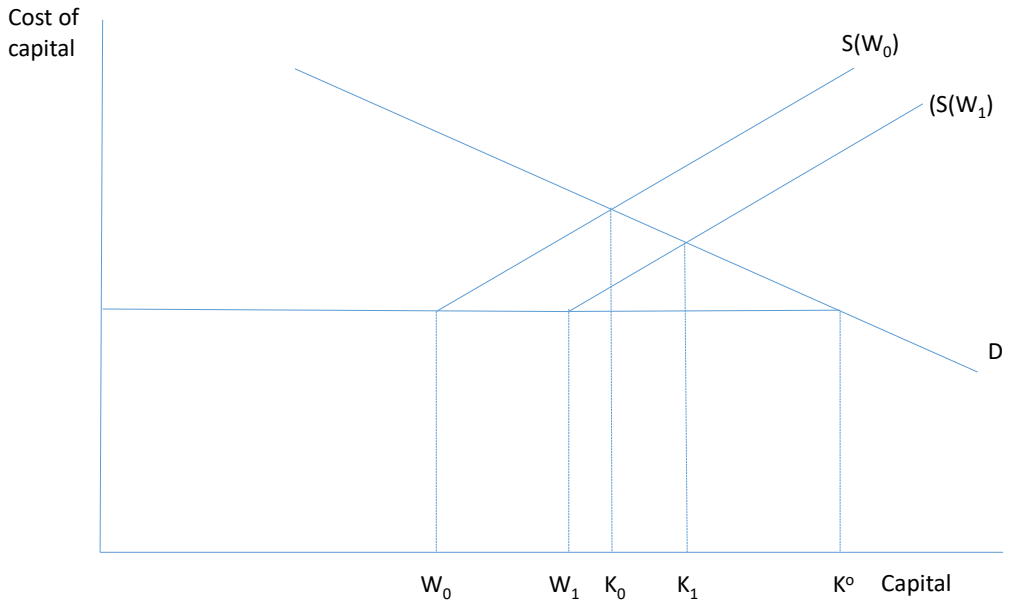


Figure 1: Incomplete information and underinvestment
Adapted from Hubbard (1998, p. 196).

Assuming ceteris paribus, an increase in investment opportunities shifts the demand curve D to the right, increasing the desired amount of capital; and a reduction in investment opportunities shifts the demand curve D to the left, reducing the quantity of capital desired. An increase in the market interest rate decreases the desired amount of capital, while a decrease in the market interest rate increases the desired amount of capital. This basic interpretation does not allow for any possibility that the company's internal sources of financing per se have any influence on the investment decision. The company recognizes the opportunity cost of internal sources of financing as the market interest rate and can borrow or only lend funds at the interest rate on the capital market.

This example assumes that the decision-makers in the company and the external providers of financial resources are equally informed about the choice of the company and the use of inputs, about investment opportunities, about the riskiness of projects, and about returns. These are very strong assumptions. In fact, decision-makers in companies have significantly more information about corporate investments and production than external investors. Information asymmetry leads to adverse selection, moral hazard, or both.

Hubbard (1998) illustrates the effects of information asymmetry on investment in the context of moral hazard. Other costs of moral hazard or adverse selection, which originate from private

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information about the riskiness of the project and its quality, have similarly strong consequences for the costs of financial resources and investments. For a company with a net worth of Wo that can carry out an investment project, the project will begin to bring a return after a certain period of time, say, one year. The required inputs are capital K (production plant, equipment) and other inputs that increase capital productivity (organizational expenses, maintenance expenses, so-called soft capital). If the project is implemented, it brings the expected positive return. The expected return from the capital investment is increased by the use of soft capital, specifically up to the point defined by a volume that is proportional to the volume of capital used. The actual return may be higher or lower than the expected return. Since the company invests its own resources Wo in the project, payments to external investors cannot be greater than the project's return.

The company has the choice to invest Wo at an interest rate r. A risk-neutral company will proceed with investment projects only if the return less payments to outside investors is greater than (1 + r) Wo. If external investors are risk-neutral and competitive, their equilibrium required rate of return on financing sources must be equal to r.

In the simple graphical analysis in Figure 1, the supply curve S has two components. The first is a horizontal segment at r to the level of financial resources W, i.e., to the net worth of the company. To this extent, no agency costs are incurred and lenders require a rate of return equal to the real market interest rate.

However, if the risk of opportunistic behavior is present, unsecured lending requires that lenders be compensated for information costs. Therefore, at a net value greater than the net value of W, the supply curve S shifts upward. This means that the company's cost of unsecured external financing is greater than the cost of internal financing. The slope of the supply curve S reflects the information costs of unsecured financing. The higher the marginal information costs, the steeper the slope of the upward-facing part of the supply curve S. In the presence of information costs, the equilibrium volume of the company's capital is determined by the intersection of the curves D and S at Ko. This volume of capital is smaller than the first most desirable volume of Ko; it is a so-called underinvestment (Hubbard, 1998) given a situation where no information costs are present.

Figure 1 describes these links between net worth, external financing costs and investment. Again, the first most desirable range of capital is Ko. Given information costs and net worth Wo, the equilibrium volume of capital is Ko. If information costs are constant, and if the net value of Wo increases from Wo to W1, the supply curve of financial resources shifts from S(Wo) to S(W1). If investment opportunities remain constant, the demand curve D maintains the same position. At constant information costs and investment opportunities, an increase in net worth increases the volume of capital from Ko to K1. For a firm that does not face information costs and has sufficient net worth or internal funding sources, this means that it can finance its desired amount of capital and the equilibrium amount of capital is maintained at Ko. This means that for companies that have negligible information costs, an increase in net worth independent of investment opportunities has no effect on investment. For companies that have high information costs, an increase in net worth leads to more investment, ceteris paribus, while a decrease in net worth leads to less investment. Thus, according to Hubbard (1998), for a

company, unsecured external financing is more expensive than internal financing, and at constant investment opportunities, a decrease in net worth reduces the investment of companies facing information costs.

Hubbard (1998) also shows how the "accelerator" mechanism can work in aggregate investment. During economic booms, investment opportunities increase and the demand curve D shifts to the right in Figure 1, increasing the desired volume or stock of capital in the neoclassical frictionless model. At the same time, another channel is activated. During economic booms, when the borrower's net worth is high, either because of past accumulation of assets or because of optimistic predictions about the future, the supply curve S shifts to the right; the cost of financing is relatively low, reducing the cost of external financing, and this stimulates the demand for capital of those companies that face information costs. And on the contrary, the decrease in net worth during a recession increases the cost of external financing and the delay or postponement of investments.

Theoretical models of imperfect capital markets suggest that for many companies external financing is more expensive than internal financing. Therefore, for a given range of investment opportunities, information costs, and market interest rates, companies with a higher net worth should invest more. Such companies should also be more capable of investing. Testing the effects of net worth on investments, and thus indirectly on the investment ability of companies, poses important challenges to researchers, including the need to control investment opportunities and the desire to isolate the predictions of theoretical research. Here, the effects of net worth on investments are significant for companies that have high information costs.[1]

The Effects of Capital Markets on The Investment Decisions of Companies

There are three main challenges researchers face when empirically testing and analyzing the effects of capital market imperfections on the investment decisions of individual companies. The first challenge is simply the need to measure the company's investment opportunities (Hubbard, 1998), the identification and exploitation of which represents an important variable of the company's investment ability in our conceptual model. For example, changes in the net worth of companies and thus their investment abilities may be related to investments and their returns simply because they are caused by changes in the companies' investment opportunities. The models presented in the previous section emphasize the role of intrinsic net worth and information costs, with investment opportunities held constant. Therefore, empirical tests must identify some proxy for these investment opportunities. This means that in Figure 1, an increase in investment opportunities would shift the demand curve D to the right and thus increase investment, which would also indicate an increased investment ability of the company. Since current profitability also increases, the supply curve will shift to the right as the net value of W increases.

[1] The q theoretical approach, first presented by Tobin (1969) and extended by Hayashi (1982) to investment models that assumed convex adjustment costs of capital, offers another definition of the neoclassical model. Investment opportunities can be captured by the market value of the company's capital and, under certain assumptions, the ratio between the market value of the capital and its replacement costs is the basic variable that explains the demand for investments.

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Second, due to models that address the aspect of imperfect information and highlight cross-sectoral predictions – meaning that net worth effects on investment should be reflected mostly in borrowers with very high information costs – according to Hubbard (1998), empirical research should address industry case studies or panel data to be able to distinguish between decisions over time made by both information-constrained and non-information-constrained companies.

Third, Hubbard says (1998) that researchers need to identify both compensations for net worth and changes in net worth that are uncorrelated with changes in investment opportunities. In Figure 1, it is necessary to isolate changes in W and therefore in the curve S(W), which are independent of changes in the demand curve (D).

These challenges are of course interdependent. The finding of a close relationship between changes in net worth and investment does not always support the validity of expensive external financing models. Hubbard and researchers (1998) assume that cash flow is used as a proxy for changes in net worth, with cash flow approximately equal to the flow of receipts less expenditures and tax payments. If cash flow is correlated with future profitability, the relationship between cash flow and investment for a given company over time can reflect the relationship between expected profitability and investment, which is considered by neoclassical frictionless models. At a certain point in time, the cross-sector connection between cash flow and investments is similarly questionable: companies with a large cash flow have successful investments or low costs and deal with incentives to increase production. Such companies are also more capable of investing. Again, the link between cash flow and investment may reflect a conventional neoclassical mechanism.

In principle, the present value of future returns from additional capital investments is a suitable criterion for evaluating investment opportunities, which is in line with the expectations of company managers. If financial frictions in the capital markets are not important, internal and external financing are perfect substitutes and information about changes in net worth is irrelevant for investment decision-making, or as Hubbard (1998) argues, therefore the change in net worth should not have a direct effect on investment.

The Effects of Internal Sources of Financing on Company Investments

By testing the form presented above, other authors have pointed to cross-sectoral differences in the effects of internal sources of financing on company investment, as compensation for changes in net worth. For a given volume of investment opportunities, the increase in net worth affects investments more in companies without intermediaries. When testing the investment cash flow, the investment will be more sensitive to cash flow in companies without intermediate or indirect relationships. The Japanese example shows this. An individual company may use membership in a keiretsu or large industry group as a means of selection. The idea is that keiretsu companies have access to external sources of financing through the parent bank of the group, which strictly controls its member companies, thus reducing the information costs of external financing. As a result, cash flow will have a smaller effect on investments in constant investment opportunities at member companies than at companies that are not affiliated with a keiretsu. This test can be illustrated by Figure 1. If indirect relationships eliminate information costs, the S curve will be horizontal at r. In companies with

indirect relationships, changes in net worth have no effect on investments, whereas in companies without indirect relationships, changes in net worth may affect investments. While liquidity effects on investment are – or at least have been until now – important for unincorporated companies, they are much less important for keiretsu companies (Hoshi, Kashyap, and Scharfstein, 1991). Another grouping of companies in this respect can be useful to the extent that it is based on the characteristics of the companies and if these are related to problems of asymmetric information – for example, young vs. mature companies, companies with dispersed vs. concentrated ownership, when it comes to compensation for potential agency costs, and companies that are members of industry groups vs. companies that are not.

One of the problems of measuring investment opportunities is the problem of measuring changes in net worth that are not correlated with these investment opportunities. The intuition-based tests presented in Figure 1 claim a shift in the supply curve S that is independent on the determinants of capital demand. In the case of studies that used panel data and used cash flow as a proxy for changes in net worth, it is difficult to identify independent changes in net worth.

One of the sources of independent changes in the company's cash flow comes from changes in the payment of taxes. Due to factors such as the carry-forward of tax losses, tax payments are not perfectly correlated with a company's profitability; for these reasons, tax payments are an instrumental variable for cash flow (Hubbard, Kashyap, and Whited, 1995).

Another experiment that offers taxation for consideration concerns the fact that retained earnings are taxed higher than distributed earnings. In the context of frictionless capital markets, companies will take advantage of the incentive to change their dividend policy as long as the difference in taxation of dividends and taxation of retained earnings is significant. As a counter argument, for some companies there is a potential difference in the cost of internal and external financing. To the extent that the marginal cost of external financing is high, growing companies with profitable investment opportunities may choose the option to pay taxes on retained earnings and invest their internal resources instead of distributing their resources and then re-acquiring them in the capital market.

When the maximum marginal tax rate on corporate retained earnings was set at 27% (Hubbard, 1998), this prompted most companies to change their dividend payout policies. The accumulation of working capital responded to cash flow only in companies that had a high tax threshold. They used working capital to offset investments in fixed capital when external financing was expensive.

There are a few other ways to detect changes in net worth independent of changes in investment opportunities. The first is to examine the historical relationship between debt and deflation. In the case of (debt) deflation, a fall in the general price level increases the real value of borrowers' liabilities, thereby reducing their net worth. In Figure 1, the net worth of companies decreases – as the supply curve S shifts to the left – but their investment opportunities, which are covered by the demand curve D, do not change. An increase in the burden of real debt weakens the ability of borrowers to finance any potential investment. For companies that have a diversified activity, it is possible to assess how the effects of shocks on

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internal sources of financing caused by activities unrelated to the given activity of the company affect investments in this activity. For example, one could examine the investment decisions of oil companies active in and outside the oil industry. It is this approach that Lamont (1997) used when he found a positive effect of oil-related cash flow on non-oil-related investment. At the same time, other investment opportunities are constant. Thus, cash flow was used to compensate for the change in net worth. Other researchers (Shin and Stulz, 1998) discovered that the investments of the smallest departments of a diversified company are significantly related to the cash flow of other departments or segments.

Risks Associated with Investments

One of the most important factors affecting investment ability is certainly risk, or how successful companies are in detecting, controlling, and managing risks in the area of their investment activity. In this section, let us take a look at what types of risk companies face when investing, and in what possible ways they control or manage it.

Table 1 presents and summarizes the main types of risks associated with investments. This review was prepared by the Government of British Columbia (adapted from their website; BCIMC, 2008).

Table 1: Types of risks related to investments and their management

Type of risk	How to control risk
Active management risk	Active managers try (also on the basis of benchmarking) to increase returns according to the company's position on the market. It is a risk when the company's active position in the market can have an undesirable or even harmful effect on the results of the investment.
Price risk of commodity	Changes in the prices of raw materials (for example, oil and gas) can affect the level of profits or the value of set currencies, which can indirectly be reflected in lower returns on investments.
Concentration risk	Diversification reduces exposure to individual companies and systematic risk. The more concentrated the business systems (holdings), the lower the level of diversification. Concentration risk can also come from a capital market dominated by individual companies, such as Nortel representing more than 30% of the TSE Composite Index, or having a very large weighting in certain industries or economic sectors.
Construction risk	Construction risk is the risk when new buildings or renovations are not yet completed and when additional guarantees and mortgages are required. Construction-completion risk can be reduced if experienced planners are hired who know how to properly evaluate projects, if sufficiently high profit margins are calculated, and if additional collateral is required from borrowers to ensure the continuation and completion of the work.
Credit risk	Credit risk is the risk when the borrower or lessee or the counterparty does not respect the contractual obligations and does not pay. Credit risk can be reduced by diversifying assets, limiting investments only to solid investors (state, reputable companies) or requiring additional collateral, such as mortgages.

Derivative risk	While derivatives can be a useful tool for managing risk (hedging) or for maintaining an entire investment portfolio (cash flow management) or for facilitating investment transactions (asset management) and/or for increasing returns, there are also certain risks originating from the use of these instruments: 1. credit risk associated with certain future contracts (forward or swap), whereby the counterparty does not respect the contractual obligations; 2. trade restrictions or liquidity problems that reduce the ability of the investor's portfolio and prevent him from enforcing futures contracts; 3. There is no guarantee that by issuing derivative financial instruments, the investor will be able to insure himself against the risks that may arise on the money or capital markets and thereby increase the returns on his investments.
Environmental risk	Environmental risk is the risk when the property's value decreases due to the consequences of environmental pollution. Investments in real estate become the subject of valuation and a competent person prepares an appropriate environmental protection report on the impact of pollution.
Equity risk	If the capital portfolio is highly concentrated, the company has a specific or unsystematic risk, which can be reduced by diversifying investments. Returns on capital investments are influenced by the general economic situation and forecasts of economic trends in individual industries, or the so-called systematic risk.
Equity market risk	Capital market risk is the risk when companies invest to the maximum and do not pay attention to falls in the value of shares on the capital markets. Diversification of investments between several capital markets is necessary.
Foreign currency risk	Changes in exchange rates affect returns on investments denominated in other currencies. Currency risk can be mitigated or eliminated by using derivatives (futures contracts).
Country risk	Investing in foreign markets may result in additional risk associated with different accounting standards, auditing, legislation, and/or other reporting standards applicable in other countries where the company invests. There may also be less reliable statistical data, less transparency of business results from the point of view of corporate governance. Regulation in relation to securities trading can also be deficient.
Index fund risk	Mutual funds, which have pooled assets, are supposed to ensure the participation of individual holders of securities with a similar risk and with a similar required return as that of a market index, for example the S&P 500. Some indices are more concentrated (on individual companies or industries) or they consist of assets with a higher level of risk. There can be significant differences in the risk of different mutual fund indices.
Interest rate risk	The longer the bond's maturity, the more sensitive the bond's price to changes in interest rates. Changes in interest rates affect other forms of wealth, such as equity and real estate. A certain interest rate risk can be reduced if the term of assets and liabilities is harmonized (the lifetime of each type of asset with the maturity date of liabilities).
Inflation risk	The risk of price changes is the risk due to inflation, to which capital is strongly exposed and which can be reflected in the real yield of bonds.
Liquidity risk	Some assets, by their very nature, are difficult to sell on the open market, and "forcing" their sale can lead to large losses. Deterioration of liquidity can also occur due to legal restrictions, due to the characteristics of the market and the specifics of the investment itself, the lack of demand, payment conditions, etc. Compensation for reduced liquidity can be a gradual increase in required rates of return.

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Funding risk	Financial risk is the risk associated with a "generous" spending of funds (donating and sponsoring). This risk can be reduced if a surplus of assets over liabilities is maintained, if a certain amount of cash reserves is created in case of a deficit in the future.
Underlying fund risk	A relatively large redemption of the Pooled Fund's assets results in a relatively large volume of sales, which may create a capital gain or loss, or affect market prices in the short term. On the contrary, large cash inflows create a cash balance at a higher level than desired and thus represent a certain obstacle to business. The risk of the underlying fund can be reduced if certain limits are placed on the cash flow.
Manager risk	Managerial risk can occur in the company's operations (non-coordinated performance of managers in the management hierarchy), which can be prevented by diversification among management personnel. A strict selection process for managers, including the introduction of control over managers, can reduce this type of risk.
Maverick risk	It is a risk associated with an individual investment, which arises if the company deviates too much from the planned investment during the implementation phase. This type of risk can be reduced if external managers or project managers are involved in the implementation and are strictly controlled.

Source: Government of B.C. (acquired from website, January 2019)

The ability of companies to manage all the types of investment-related risks presented above indicates their investment ability. The risks in our contribution can be highlighted threefold. First, as the ability to manage the risk of solvency within the framework of financial flexibility (Bukvič, 2016), second, within the framework of project competence, when project managers assess key risks during the implementation of investment projects and create different scenarios, and third, within the framework of dynamic capabilities in the field of investment, when responsible process holders are also able to perceive dangers in the company and in the environment, and when top and middle management know how to combine and transform resources and the organizational structure in accordance with changes in the environment.

RESTRICTIONS OF DIFFERENT TYPES OF CAPITAL AND THEIR EFFECTS ON THE COMPANY'S INVESTMENT ABILITY

Restrictions on different types of capital (equity and debt), which lead to the financial distress of companies, also have different effects on the investment ability of companies. Numerous studies have shown (Gilchrist, Bernanke, and Gertler, 1994) that investments in companies that find themselves in financial distress are more sensitive to cash flow. This fact, among others, prompted Holmstrom and Tirole (1997) to develop a simple equilibrium credit model in which the net worth of a company determines its borrowing capacity and, consequently, its investment ability. (We presented the net worth of a company in greater detail in section 5.1). Companies that are excessively indebted relative to their equity capital cannot operate normally. If we assume that investment projects are of constant size, that they do not change, only companies with sufficient net worth will be able to directly finance them, i.e., only companies with a greater investment potential. Companies with a low net worth are forced to turn to financial intermediaries, commercial banks, which can reduce their mortgage requirements through greater monitoring and control of their operations. Thus, monitoring and controlling such companies as borrowers is a partial substitute for their mortgage. The authors are primarily interested in the effects of restrictions on different types of financial resources, different types of capital on investments, interest rates, and forms of financing. Their model includes both demand factors (changes in mortgages) and supply factors (changes in the capital

of financial intermediaries) and is in this respect related to previous empirical research (Bernanke, 1993). With their model, the authors describe the following behavior of companies, which is already known from previous research (Jaffee and Russell, 1976; Stiglitz and Weiss, 1981; Diamond, 1984; Hoshi, Kashyap and Scharfstein, 1991): companies with extensive net worth, i.e., companies with more investment potential, can count on cheaper financial resources, while highly indebted companies can only access financial resources with a high degree of control over their operations. As such resources shrink, the credit crunch will hit companies with little equity capital the hardest.

In Holmstrom and Tirole's model (1997), which deals with two periods – in the first, credit agreements are concluded and investment decisions are made, and in the second, investment returns are realized and liabilities are settled – three entities are involved: companies, financial intermediaries (commercial banks), and investors. Risk is neutral and no one ends the business with a negative cash flow. All companies in the real sector have access to the same technology. The only difference between them is that they initially have different amounts of capital A. The authors assume that all initial capital is equal to money. Each company has one economically viable project. Its investment cost in period 1 is equal to $I > 0$. If $A < I$, the company needs at least $I - A$ of external financing sources in order to be able to realize the investment. In period 2, the investment generates a verifiable financial return, which can be equal to 0 (missed investment) or equal to R (successful investment).

The Problem of Moral Hazard in Choosing Investment Projects

The management of a company (or an entrepreneur) can deliberately reduce the probability of business success in order to increase its private benefit in the case of a lack of own incentives or external financing and thus also control. Holmstrom and Tirole (1997) formalize this moral hazard problem by assuming that management (or the entrepreneur) can choose among three project options, as presented in Table 2.

Table 2: Three versions of the project from the point of view of private benefit

Project	Good	Bad (small private benefit)	Bad (big private benefit)
Private benefit	0	b	B
Probability of success	pH	pL	pL

Source: Holmstrom and Tirole (1997, p. 668).

The authors assume that:

$$\Delta p = p_H - p_L > 0.$$

Furthermore, in the relevant range of the rate of return on the investor's capital, denoted by γ, only a good project is able to survive economically, which can be written as follows:

$$p_H R - \gamma I > 0 > p_L R - \gamma I + B. \qquad (1)$$

The authors introduce two bad projects with the aim to satisfactorily control and monitor them. The private benefits rank as follows: $B > b > 0$. They can be considered as opportunity costs related to careful project management. Shirking results in the same probability of success. Thus,

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management (or the entrepreneur) will prefer high private benefits (project B) to lower private benefits (project b) regardless of the project financing contract.

The financial sector in the model proposed by Holmstrom and Tirole (1997) consists of many intermediaries. Their function is to monitor and control companies in order to mitigate the problem of moral hazard. In practice, such monitoring and control takes various forms: control of the company's potential cash flow, balance sheet and management, etc. Frequent monitoring and control mean a complete verification of whether the company respects the commitments from the credit agreement, checking the solvency indicator or the minimum balance of money on the account. When it comes to bank loans, such covenants are common and widespread. Their purpose is to reduce the opportunity costs of the company's operations. Holmstrom and Tirole (1997) defend the thesis that monitoring and control can prevent the company from realizing project B. This reduces the opportunity cost of doing business from B to b.

One of the key assumptions in their model is that monitoring and control are expensive for the private individual; the intermediary (commercial bank) will have to pay a certain amount, $c > 0$, in order to rule out project B. Thus, intermediaries also face a potential moral hazard problem. While each intermediary is physically capable of monitoring and controlling a certain number of borrower firms, the moral hazard model places limits on the actual extent of such control. Moral hazard forces intermediaries to inject some of their own capital into the companies they monitor and control.

Small investors act as a third entity in the model. They are appointed by the authors as uneducated investors who demand an expected rate of return, γ, for their invested capital. This should be given exogenously, since there is an infinitely large supply of external investment opportunities with return γ. The equilibrium rate of return on intermediary capital is denoted by β.

Holmstrom and Tirole (1997) assume that companies cannot monitor and control other companies because they either have insufficient capital or because they do not have qualified experts. Therefore, companies with investment ability and surplus capital invest in the open market and generate a return at the rate γ.

Direct And Indirect Financing of Investments in Light of The Investment Ability of Companies

Holmstrom and Tirole (1997) classify companies in their model into three categories according to their demand for capital provided by intermediaries (commercial banks). At one extreme are companies that have enough capital, are capital-adequate, $A > \overline{A(\gamma)}$, and so have an investment ability. These companies can finance their investments directly and do not ask for capital from intermediaries. At the other extreme are companies that do not have enough capital, they are capital inadequate, $A < A(\gamma, \beta)$. These companies cannot invest at all, they do not have any investment ability. Between the two extremes are companies for which $A(\gamma, \beta) \leq A < \overline{A(\gamma)}$. These companies can invest, but with the help of capital provided by intermediaries, and thus with the help of their monitoring and control. These companies are less capable of investing.

A typical externally controlled company finances its investments with both the capital of intermediaries and the capital of uninstructed investors. If there are companies for which A < $\overline{A(\gamma)}$ but A + Im(β) > I, then these companies demand only the capital of intermediaries and invest their financial surpluses in the capital market of uninstructed investors. Holmstrom and Tirole (1997) explain the composite financing from the capital of intermediaries and the capital of uninstructed investors in two ways, and also illustrate it with the graph shown in Figure 2 and the graph shown in Figure 3.

Uninstructed investors are independent investors. They invest directly in companies, as can be seen from Figure 2, but in those companies where the intermediary is already heavily present with its capital, which guarantees the careful operation of such companies. An intermediary or one who monitors and supervises such companies is similar to a venture capitalist, a leading investment bank, or some other sophisticated investor whose stake in these companies confirms to borrowers that such companies are financially sound and do not need to seek additional capital from uninstructed investors. A good example of this is a bank guarantee or a secured loan.

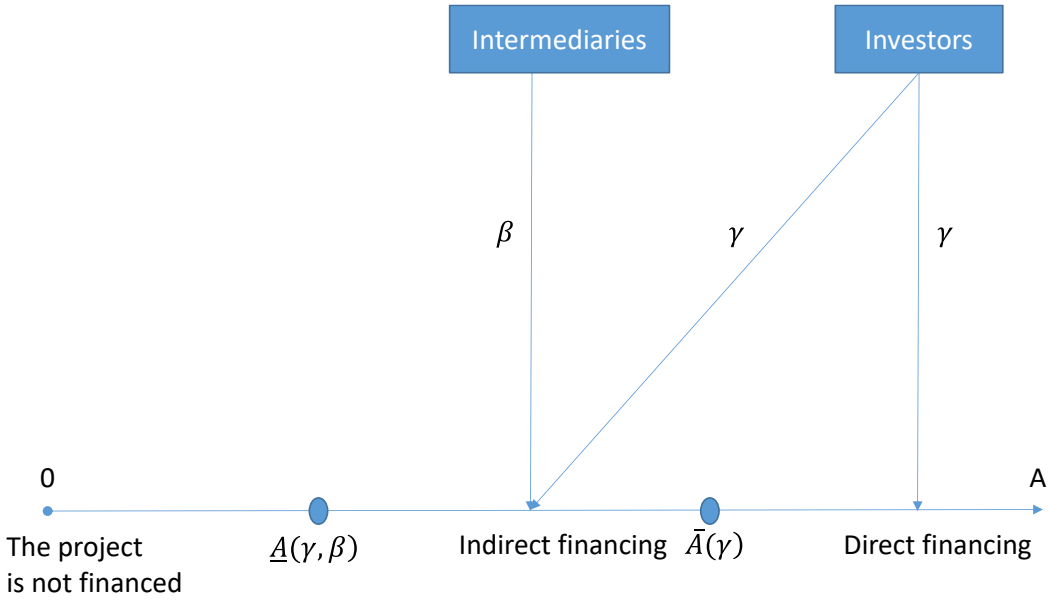


Figure 2: Financing of investments with the capital of intermediaries and investors
Adapted from Holmstrom and Tirole (1997, p. 675)

Alternatively, Holmstrom and Tirole (1997) present in their model an intermediary, a commercial bank, that monitors and controls the company's operations. According to their interpretation, investors deposit their funds in a bank, which invests these funds together with its funds in companies that it monitors and controls. Such a method is illustrated by the graph in Figure 3.

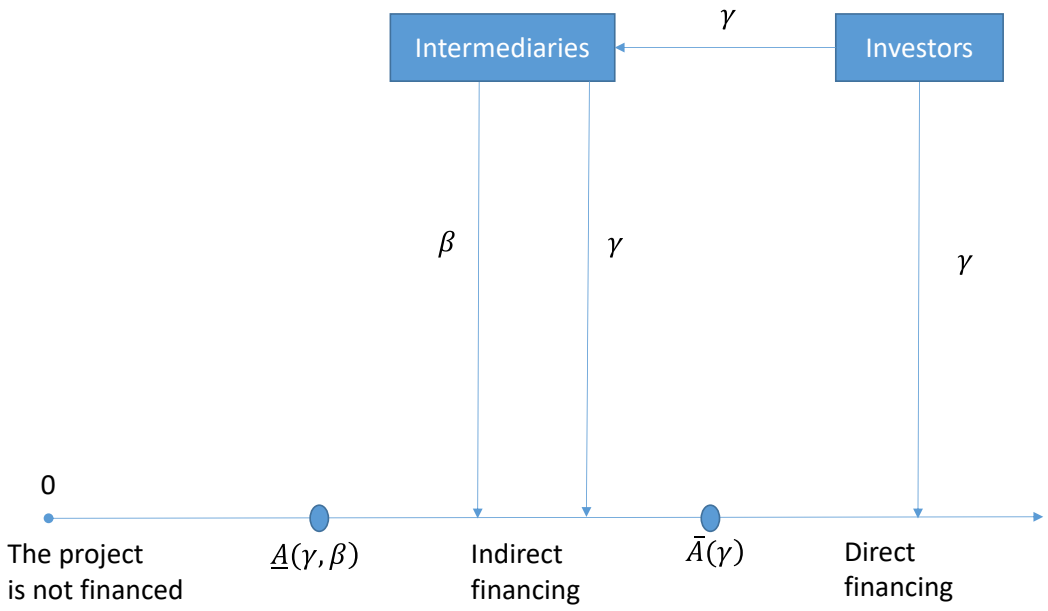


Figure 3: Financing of investments with investors' capital through intermediaries
Adapted from Holmstrom and Tirole (1997, p. 676)

The amount of uninstructed investor capital that a broker can attract depends on how much of its own capital it has and what the rates of return are in the broker and uninstructed investor capital market. This example of intermediation makes it clear that investors require intermediaries to meet solvency conditions that set a limit on the ratio of their own capital to total capital.

To conclude, with their paper, Holmstrom and Tirole (1997) wanted to take the first step towards understanding the role played by the distribution of capital among different sources. In their model, the borrowing capacity of companies and intermediaries is limited, so the redistribution of wealth between companies and intermediaries affects investment, monitoring and control, and interest rates. All forms of capital "tightening" – credit crunch, reduction of guarantees, and reduction of savings – affect companies with little capital (undercapitalized companies) the most, and each such shock has a different impact on interest rates, the intensity of monitoring and control, the solvency of intermediaries, and corporate indebtedness.

VARIABLES – INDICATORS THAT MEASURE INVESTMENT ABILITY

After reviewing the extensive relevant literature related to investments and their financing, we examined the investment ability of companies from various aspects, but above all learned what determines it, which key factors influence it, how we can connect investment ability to the net worth of companies, especially in the context of investment opportunities, what types of risks companies must manage in the field of their investment activity, what capital constraints companies face when implementing their investment projects and how successfully they overcome them, and what effects different forms of financing have on investment ability. Let us now summarize and condense the presented content into those indicators or observed measurement variables that should be determined and defined by investment ability as a latent endogenous construct in our conceptual model.

Since capital markets are not efficient, we cannot use traditional financial theory as a theoretical framework. Therefore, we will use resource-based theory or the theory of dynamic capabilities and define the variables of investment ability based on that part of this theory which refers to the investment activity of companies and which both directly and indirectly provides starting points and guidelines for defining their investment ability. These are starting points that indicate the ability of the top and middle management of companies to create a quality company development strategy, to plan investments well and realistically, to create a quality SWOT analysis (which also includes risk), to research markets, technology, and the business environment well, to recognize and exploit investment opportunities, to achieve planned goals, to be able to decide and accept decisions in the given conditions (with regard to capital and other restrictions) and to take action if necessary, to be able to combine and transform resources (including financial ones), and to be able to transform the organizational structure according to changes in the environment. These are basically observed measurement variables (indicators) determined by investment ability. We present them in Figure 3.

CONCLUSION

If companies are to create and maintain a permanent competitive advantage, they must constantly invest in the development of new products/services, in the conquest of new markets, in the expansion of their production/service capacities, in technological upgrades, in the acquisition of knowledge and skills of their employees, and in the protection of the environment while always being aware of their social responsibility. To invest means to be able to invest. Investment ability is a term that is increasingly used both in theory and in practice, although so far researchers have not dealt with this term in the etymological sense, nor have there been any serious attempts in the research field to more clearly define investment ability, expressed with one or more relevant indicators, as well as assessed and measured. Thus, with this contribution, which is based on extensive research, we tackled a fairly demanding and extensive issue. It is based on the following questions, of interest to every company, regardless of the industry in which it operates. We were interested in what enables the sustainable survival, growth, and development of a company, and why some companies are more successful than others. In answering this question, we focused on the companies' investment activity. The success of a company's operations also depends on its investment ability, which is to say on how successful the company is in discovering investment opportunities, planning investments, implementing investment projects, and achieving the desired economic effects of said investments. In doing so, we put forward the main hypothesis that resources, such as primarily human resources and financial resources, influence the investment ability of companies.

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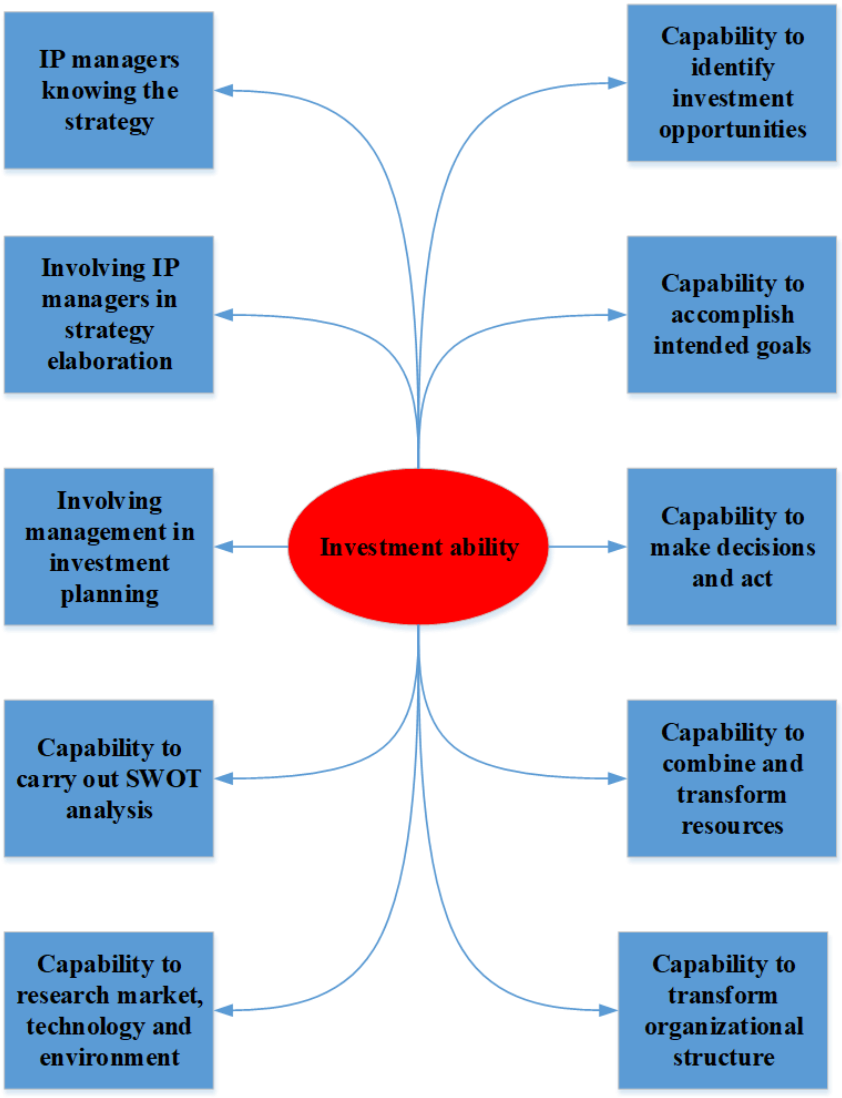


Figure 3: Variables (indicators) defined by the latent construct of the investment ability of a company

Source: own work.

We set the research problem based on the following facts. First, there are no comprehensive research and other approaches that capture a wider range of resources and capabilities involved in investment ability. Second, we note that there is little empirical evidence to draw conclusions about the influence of resources on investment ability. Third, in Slovenia and worldwide, we have not seen a comprehensive study of the sources of investment ability. Fourth, our research, which can be considered sui generis pioneering work in the field of investments, can be a good starting point for further research on investment ability, especially the study of other sources and dynamic capabilities that influence and define investment ability. It is an area that is still completely unexplored.

Our conceptual model, which we tested in the context of a broader, extensive study, is based on the theory of achieving competitive advantage based on resources and dynamic capabilities. We proceeded from the theoretical assumption that a company is defined by its resources. The

company more or less successfully controls these resources, which is reflected in the differences in the performance of individual companies. A company has a permanent competitive advantage if it has resources that are valuable, rare, inimitable, irreplaceable, and non-transferable, and if it at the same time has the ability to use these resources. If a company uses resources to create product/service value from the customer's perspective, these resources can contribute to above-average business performance. In this paper, we examined how human and financial resources influence investment ability, or how they define it. We also built on the assumption that the success of a company's operations depends on how effectively the company uses resources in the investment process. We started from the complementarity of sources used to define investment ability. The investment ability of a company is the key factor that enables the company to invest, and thus also to grow and develop. Companies that have no investment ability cannot invest, lag behind in growth and development, and the competition overtakes them and eventually eliminates them from the market. To prove this, we put together a conceptual model that connects resources and investment ability, placing it on solid theoretical foundations.

Investment ability represents the ability of a company to use resources in a unique way through organizational processes. A company's investment ability develops over time and reflects the decisions made by the company's decision-makers regarding the acquisition and allocation of resources. When a company succeeds in combining human and financial resources that ensure the achievement of a competitive advantage and thus creates specific organizational capabilities, the company's capabilities develop, including its investment ability. Investment ability is manifested in the alignment of investment goals with the company's long-term development strategic orientations, in the way individual elements of investment ability are managed, such as all types of investment risks, in the effective provision of resources, and the maturity of investment management, i.e., in possessing the necessary specific knowledge.

Companies have a limited number of resources, especially financial resources and personnel, in the area of their investment activity, so they must decide how to allocate them accordingly. Judging by how successful companies are in acquiring and deploying these resources within themselves, certain groups of resources and capabilities are created that differ from those of the competition. If we compare comparable companies (in the same industry, of the same size), the advantage is on the side of those who take initiatives in the field of investment activity, i.e., exploit investment opportunities, use them wisely and direct them in a targeted manner in accordance with their key capabilities, including their investment ability, unlike companies that do not allocate available resources efficiently and focus less on them.

Although there are quite a few limitations, especially in the empirical part of the research, in this theoretical outline we only mention those that are related to our conceptual model. In the model, we included measures for most of the determinants of resources and investment ability identified in the literature, but we cannot claim that these are all the determinants. The relevant literature led us to assume the direction of causality in the model. Thus, we cannot rule out the possibility that causality actually runs in the reverse direction. This becomes evident when we determine the connection between financial resources and investment ability. The direction of causality could only be determined through a longitudinal study, which represents one opportunity for further research. This limitation concerns the methodology. With this method,

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conclusions about causal relationships are only possible on the basis of previous theoretical and experiential knowledge.

In the context of investment ability, we have selected only two observed variables that include the company's development strategy, albeit more in the sense of its knowledge and preparation by company management. Therefore, it would be opportune for the model to be upgraded by checking the importance and manner of the influence of the company's strategic direction on investments and thus on its investment ability. In this way, it would be possible to explicitly determine to what extent the implemented investments are coordinated with the development strategies of the companies. This can be a topic and at the same time a challenge for those who would like to illuminate and theoretically define the investment ability of companies from other perspectives.

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