(In)tangible resources as antecedents of a company's competitive advantage and performance*

*Tomaž Čater, Barbara Čater***

The paper's purpose is to add to the body of knowledge on the antecedents of a company's competitive advantage and performance by developing and testing a conceptual model. By using structural equation modelling the model is tested on a sample of 182 Slovenian companies. The results show that a cost advantage is positively affected by financial resources and customer capital, while a differentiation advantage is positively affected by financial resources and all three components of intellectual capital. In addition, both forms of competitive advantage positively influence a company's performance. The results offer important theoretical implications in fields such as resource-based theory and customer relationship management as well as important practical implications for managers.

Das Ziel dieses Artikels ist es, unseren Wissensstand über die Einflussfaktoren auf den Wettbewerbsvorteil und den Unternehmenserfolg zu erweitern, indem ein konzeptuelles Modell entwickelt und geprüft wird. Durch die Verwendung der struktuellen Gleichungsmodellierung wird das Modell mit einem Sample von 182 slowenischen Unternehmen geprüft. Die Ergebnisse zeigen, dass ein Kostenvorteil durch finanzielle Mittel und Kundenkapital positiv beeinflusst wird, während ein Differenzierungsvorteil duch finanzielle Mittel und alle drei Komponenten des intellektuellen Kapitals positiv beeinflusst wird. Außerdem haben beide Formen von Wettbewerbsvorteil einen positiven Einfluss auf den Unternehmenserfolg. Die Ergebnisse haben wichtige theoretische Implikationen für Bereiche wie die ressourcenbasierte Theorie und das Kundenbeziehungs-management sowie wichtige praktische Implikationen für Führungskräfte.

Keywords: performance, competitive advantage, tangible resources, intangible resources, intellectual capital, structural equation modelling

---

* Manuscript received: 02.09.08, accepted: 18.03.09 (1 revision)

** Tomaž Čater, Ph.D., Associate Prof., Faculty of Economics, University of Ljubljana, Slovenia. Main research areas: Corporate, competitive advantage, business relationship and environmental strategies. Corresponding address: tomaz.cater@ef.uni-lj.si.

Babara Čater, Ph.D., Assistant Prof., Faculty of Economics, University of Ljubljana, Slovenia. Main research areas: Marketing relationship and business-to-business marketing. Corresponding address: barbara.cater@ef.uni-lj.si

Introduction

The process of competition between companies can be described as a causal-consecutive sequence "source of competitive advantage → form of competitive advantage (superior position)→performance" (Day/Wensley 1988; Čater/Pučko 2006). In other words, if a company wants to build a competitive advantage in either of its two basic forms (cost leadership and differentiation (Porter 1985)), certain sources of a competitive advantage must first be developed. Once a company possesses such sources and knows how to transfer them into a competitive advantage it can reasonably expect to be successful.

The sources of a company's competitive advantage have been addressed in the strategic management literature by two competing lines of study, one emphasising the external factors (characteristics of a company's environment) and the other emphasising the internal factors (company-specific resources, capabilities, knowledge etc.). Emphasis on the external factors is the essence of the "outside-in" approach addressed by researchers within the industrial organisation school (Mason 1939; Bain 1956; Porter 1980/1981/1985). On the other hand, emphasis on the internal factors forms the essence of the "inside-out" approach addressed by researchers representing the resource-based school (Penrose 1959; Wernerfelt 1984; Barney 1991; Conner 1991; Grant 1991; Mahoney/Pandian 1992; Peteraf 1993), which builds on the assumption that a competitive advantage is proactively created by companies through their accumulation of unique resources, capabilities and knowledge.

Most of the past studies show that, although both external and internal groups of factors have a statistically significant influence on company performance (Spanos/Lioukas 2001), it is internal factors that seem to be more important. Some studies report the following proportions between the variances of performance indicators explained by internal and external factors: 45.8% vs. 4.0% (Rumelt 1991), 36.9% vs. 6.2% (Mauri/Michaels 1998), 55.0% vs. 10.2% (Roquebert et al. 1996), 37.8% vs. 18.5% (Hansen/Wernerfelt 1989), and 36.0% vs. 18.7% (McGahan/Porter 1997), all in favour of internal factors. Studies by Barney (1986), Powell (1993) and Maijoor and Van Witteloostuijn (1996) also report the dominance of internal factors. This is why in this study we focus on an investigation of internal factors as antecedents of a company's competitive advantage.

Literature on resources as internal factors of a competitive advantage usually classifies company resources as physical, financial, human and organisational resources (Barney 1997) or simply as tangible and intangible resources (Michalisin et al. 1997). Although this cannot be generalised for all companies, there seems to be some kind of agreement in the literature (Hitt et al. 2001; Wu et al. 2006; Ruzzier et al. 2007) that intangible (human and organisational) resources are more relevant to creating a competitive advantage than tangible (physical and financial) resources. The main reason is that tangible resources

usually fail to meet at least one of the necessary conditions to be a critical factor of competitive advantage. These conditions include value, heterogeneity, rareness, durability, imperfect mobility, unsubstitutability, imperfect imitability and "ex ante" limits to competition (Dierickx/Cool 1989; Peteraf 1993; Hunger/Wheelen 1996; Barney 1997; Čater 2005). Based on this relatively greater importance of intangible resources this study not only focuses on internal factors in general but, within those, especially on intangible internal factors.

To be able to focus on the intangible factors we have to address the antecedents of competitive advantage beyond the classical resource-based view. According to Marr and Moustaghfir (2005), any valuable intangible resource gained through experience and learning that can be used in the production of further wealth composes a company's intellectual capital. Similarly, Kujansivu and Lönnqvist (2007) also believe that intellectual capital represents all of a company's non-physical sources of value. Therefore, studies on intellectual capital and other knowledge-related resources (Nonaka/Takeuchi 1995; Edvinsson/Malone 1997; Grant 1997; Hatch/Dyer 2004) also provide an important theoretical background to this research. The most important classification of intellectual capital distinguishes between human, structural and customer capital (Edvinsson/Malone 1997). Although several authors (Čater/Pučko 2006) seem to believe that a company's competitive advantage can mostly be built on its structural and customer capital, the literature has still not reached an agreement on the relative importance of the three components of intellectual capital.

By combining the presented classifications of resources (physical, financial, human and organisational) and intellectual capital (human, structural and customer), we identified five major groups of internal factors (physical resources, financial resources, human capital, structural capital and customer capital) which we use in our study as antecedents of a company's competitive advantage and performance. The choice of these five groups of internal factors was carefully made for two reasons. First, it enables us to analyse the influence of both tangible and intangible resources on competitive advantage and, second, by using this set of internal factors relatively greater attention is given to intangible ones, based on which we are also able to study how competitive advantage is affected by individual-owned and company-owned intangibles.

The purpose of this paper is to add to the body of knowledge on the antecedents of a company's competitive advantage and performance in the post-transitional context by developing and testing a conceptual model in which both basic forms of competitive advantage (cost leadership and differentiation) are conceived as mediating the relationship between company resources (tangible and intangible) and performance. The value of the study is especially found in the unique classification of the antecedents of competitive advantage and the fact that studies focusing on all major groups of internal factors as antecedents of

competitive advantage are rare, especially in post-transitional market economies (Zupan/Kaše 2005; Škerlavaj et al. 2007; Hernaus et al. 2008). The paper proceeds as follows. Section 2 briefly defines the constructs employed in this study and develops hypotheses and a proposed conceptual model. In Sections 3 and 4 we describe the research methodology and empirical analysis and results. Finally, Section 5 presents the main conclusions and implications (both research and managerial), discusses the limitations of the study and suggests some directions for further research.

2. Theoretical background and the development of the hypotheses

2.1. Competitive advantage and company performance

By following the simple sequential determinism of the "source → position → performance" framework (Day/Wensley 1988) we assume the final result of all efforts to build a competitive advantage is the achieving of a superior company performance. In the last few decades the literature has seen a considerable evolution of indicators used to measure performance. While traditional approaches only employed financial indicators (profitability ratios), contemporary approaches to performance measurement build on Freeman's (1984) stakeholder theory and combine financial indicators with non-financial ones (Cadez/Guilding 2008). One of the best-known contemporary approaches to performance measurement is Kaplan and Norton's (1992) Balanced Scorecard in which the financial perspective is combined with three non-financial (i.e. customer, internal and innovation and learning) perspectives. Despite this shift in the theory and practice of performance measurement, several authors claim that financial measures still represent an integral part of measuring performance (Bible et al. 2006) and remain the most important group of performance indicators (Bourne et al. 2005; Henri 2006). This is the reason we evaluate the results of competitive advantage in this study based on financial performance.

The competitive advantage concept has long occupied one of the central positions in the strategic management field. Already in 1937, Alderson suggested that a fundamental aspect of competitive adaptation is the specialisation of suppliers to meet variations in buyers' demand (Hoffman 2000). One possible way to look at competitive advantage is from the perspective of value-creation. Peteraf and Barney (2003), for example, claim that "an enterprise has a competitive advantage, if it is able to create more economic value than the marginal (breakeven) competitor in its product market". In our opinion, such an understanding already interferes with company performance which we understand as the consequence of competitive advantage. For this reason we define competitive advantage similarly to the majority of researchers, i.e. from the perspective of "positional superiority" (Day/Wensley 1988:2). According to this view, a competitive advantage can be defined as "a

unique position that a firm develops vis-à-vis its competitors" (Bamberger 1989:80). Such an understanding not only emphasises the position of a company but also the relativity (compared to competitors) of this position (Ma 2000).

Two main types or forms of a company's positional competitive advantage are cost leadership (lower costs) and differentiation (Porter 1985). The cost-leadership advantage is gained by performing most activities at a lower cost than competitors while still managing to offer a parity product, while the differentiation advantage is built by performing value-adding activities that lead to perceived superiority along dimensions that are valued by customers (Day/Wensley 1988). Differentiation advantage can further take many sub-forms, among which a superior product/service, the totality of supply, speed (fast delivery), flexibility and the positive image of a company (Kotha/Vadlamani 1995; Sashi/Stern 1995; Helms/Ettkin 2000) are most often mentioned in the literature. As the inclusion of all of these sub-forms of differentiation would further complicate our already complex model, we analyse differentiation as an integrated construct instead of its multiple components.

A review of the literature on the competitive advantage – performance relationship reveals that most authors (Day/Wensley 1988; Piercy et al. 1998; Spanos/Lioukas 2001; Morgan et al. 2004; Čater/Pučko 2006) agree on the positive influence of competitive advantage on company performance. Several studies also point to a positive influence of specific forms of competitive advantage, such as product/service superiority (Kroll et al. 1999) and speed (Sullivan/Kang 1999), on performance. On the other hand, only a few researchers (Coyne 1986; Ma 2000) believe that a competitive advantage does not always result in a superior performance because rents (as a consequence of a competitive advantage) can be appropriated by different stakeholder groups (Coff 1999). Where they are, for example, appropriated by employees this will result in higher salaries and not in a superior financial performance, such as a higher return on assets. With regard to the relative influence of cost and differentiation advantage on performance, several authors (Caves/Ghemawat 1992; Doyle/Wong 1998; Piercy et al. 1998) seem to believe that the differentiation advantage has a greater influence on a company's performance than the cost-leadership advantage. In line with the above findings the following hypotheses are proposed:

H1: A cost-leadership-based competitive advantage positively influences a company's performance.

H2: A differentiation-based competitive advantage positively influences a company's performance.

2.2. Tangible and intangible resources as antecedents of a competitive advantage

The initial studies on resources as antecedents of a competitive advantage were conducted by researchers within the classical resource-based school (Penrose 1959; Wernerfelt 1984). While in the early stages studies focused on both tangible and intangible resources, towards the end of the 20th century the term "resources" started becoming increasingly replaced by more intangibles-related terms such as core competencies (Prahalad/Hamel 1990), knowledge (Nonaka/Takeuchi 1995; Grant 1997) and intellectual capital (Edvinsson/Malone 1997). In this study we wanted to put a relatively greater focus on intangible resources while still trying to properly address the influence of tangible ones. This led us to define five groups of internal factors as antecedents of a competitive advantage: physical and financial resources, as the two main groups of tangible resources (Barney 1997), and human, structural and customer capital, as the three main groups of intangible resources (Edvinsson/Malone 1997).

Physical resources include tangible assets such as a company's land, including the geographical location, infrastructure assets such as buildings, information communication technology, physical networks and other equipment, as well as access to raw materials, energy and other important inputs (Faulkner/Bowman 1992; Barney 1997; Ma 1999). On the other hand, a company's competitive advantage can be built on financial resources if such resources can be obtained to a sufficient extent (Barney 1997) and if they can be obtained on advantageous terms (Clarke 1988). These resources include retained earnings, which are internally generated and therefore represent one of the most important parts of financial resources, as well as capital from equity holders, bond holders and other external sources (Barney 1997).

According to Edvinsson and Malone (1997:34), *human capital* includes "all individual capabilities, knowledge, skill, and experience of the company's employees and managers". Other authors similarly refer to this component of intellectual capital as comprising "knowledge, skills, intellect and talent of individuals" (Swart 2006:140), "employee's skills, competences, commitment, motivation and loyalty" (Marr et al. 2004:315) or even "talents capable of core skills" (Lin/Wang 2005:63). Based on these definitions it is evident that human capital is an individual-level construct (Swart 2006). On the other hand, intangible resources that are not embedded in individuals form a company's structural and customer capital (Čater/Pučko 2006). *Structural capital* is described by Edvinsson and Malone (1997:34) as the "embodiment, empowerment, and supportive infrastructure of human capital". It is about "mechanisms and structures of the organization that can help support the employees in their quest for optimum intellectual performance and therefore overall business performance" (Bontis 1999:447). It includes organisational

know-how and therefore falls "within the boundaries of a firm" (Swart 2006:149). Finally, the essence of customer capital was perhaps best described by Edvinsson and Malone (1997:34) who argue that "the customer relationship is where cash flow starts, not in the accounting department". Customer capital can therefore be created by "committing the customers to the company's activities" (Hussi 2004:41). It represents "the knowledge embedded in the marketing channels and customer relationships that an organization develops through the course of conducting business" (Ordóñez de Pablos 2005:437). Although some authors (Swart 2006) also address customer capital as part of a broader "client and network capital" (which includes knowledge embedded in customers as well as in other external stakeholders), customer-related knowledge still remains its central part.

Despite the relatively strong agreement in the literature that both tangible (Williamson 1975) and intangible (Barney 1991; Amit/Schoemaker 1993; Ruzzier/Antoncic 2007; Tayles et al. 2007; Arenas/Lavanderos 2008; Domadenik et al. 2008) resources are crucial for a company to gain a competitive advantage, empirical studies confirming the positive influence of resources on positional competitive advantage (as defined in this study) are surprisingly rare[1]. Piercy et al. (1998) and Morgan et al. (2004), for example, argue that resources (including physical and financial) and capabilities (such as informational, relationship building, product development and supply chain skills) positively affect positional advantages (cost advantage, product advantage and service advantage) achieved in the export market. Similarly, Čater and Pučko (2006) report that tangible and intangible (employee-related and company-related) resources positively influence both basic forms of competitive advantage. With regard to the relative influence of different types of resources on competitive advantage, authors (Hitt et al. 2001; Wu et al. 2006) agree that intangible resources rather than tangible ones are vital for achieving a competitive advantage. The reason is that intangible resources (knowledge) are subject to the effects of economies of scale and scope, which means that a company, once it possesses such intangibles, can use them on many fronts with

[1] Instead of studying the effect of resources on performance through the mediating effect of positional competitive advantage, many researchers have investigated the direct relationship between resources and performance. Unsurprisingly, the results of these studies largely confirm that a company's financial performance is positively affected by its physical and financial resources (Piercy et al. 1998), human capital (Wright et al. 1994; Hatch/Dyer 2004; Hsu et al. 2007), structural capital (Appuhami 2007; Škerlavaj et al. 2007; Tayles et al. 2007; Hernaus et al. 2008; Olavarrieta/Friedmann 2008) and customer capital (Appiah-Adu/Singh 1998; Verhees/Meulenberg 2004; Tayles et al. 2007) as well as by different combinations of the components of intellectual capital (Chen et al. 2005; Wang/Chang 2005; Wu et al. 2006) and intellectual capital as an integrated construct (Bontis 1998).

negligible marginal costs (Grant 1997). Among the components of intangible resources (intellectual capital) human capital, which can only be rented, is said to be more risky than structural capital, which is the property of a company and can thereby be traded (Edvinsson/Sullivan 1996; Edvinsson 1997). Therefore, a company's competitive advantage is more likely to be built on its structural capital (Čater/Pučko 2006). Based on the above arguments and the results of previous research the following hypotheses are proposed:

H3: Physical resources positively influence a (a) cost-leadership-based and (b) differentiation-based competitive advantage.

H4: Financial resources positively influence a (a) cost-leadership-based and (b) differentiation-based competitive advantage.

H5: Human capital positively influences a (a) cost-leadership-based and (b) differentiation-based competitive advantage.

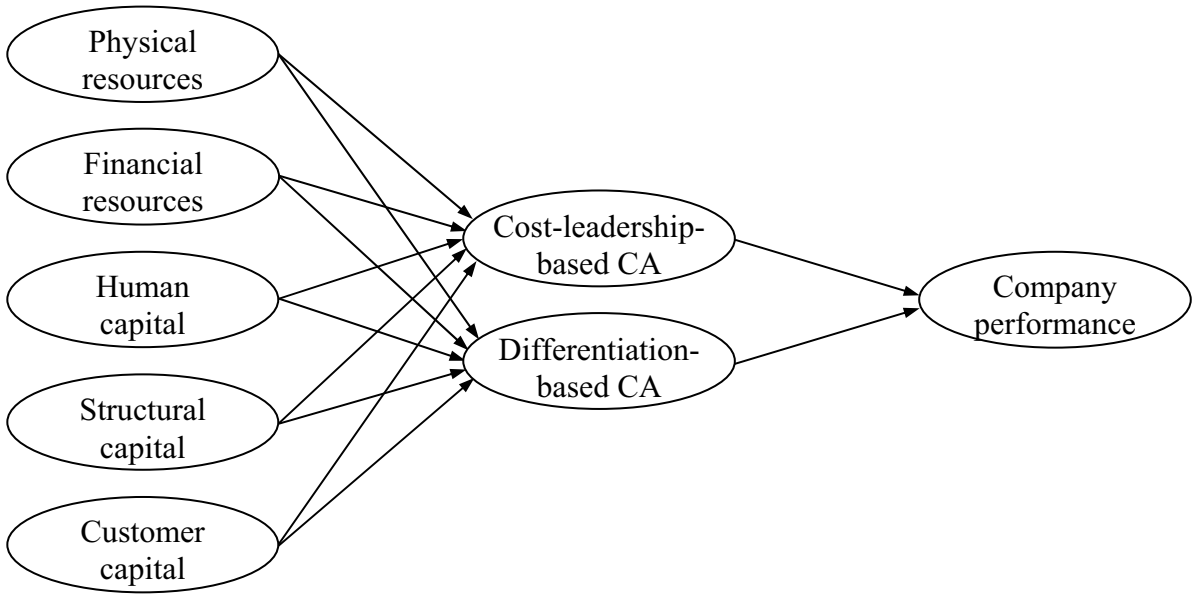
H6: Structural capital positively influences a (a) cost-leadership-based and (b) differentiation-based competitive advantage.

H7: Customer capital positively influences a (a) cost-leadership-based and (b) differentiation-based competitive advantage.

2.3. Proposed conceptual model

Based on the hypothesised links among the discussed constructs we propose a conceptual model in which both forms of competitive advantage (cost leadership and differentiation) are conceived as mediating the relationship between a company's resources and performance (see Figure 1).

Figure 1, Proposed conceptual model of the relationship among company resources, competitive advantage and performance



3. Research methodology

3.1. Development of the measures

Variables for our model were operationalised on the basis of operationalisations used in past research with some modifications. With regard to the exogenous constructs, we used the amount of fixed assets (as the best proxy of Barney's (1997) description of physical capital) to measure physical resources, while financial resources were measured using the amount of retained earnings (described by Barney (1997:143) as "an important type of financial capital") in the last three-year period. Both variables were computed per employee to eliminate the effect of company size. In addition, human, structural and customer components of intellectual capital were measured by using adapted scales developed by Bontis (1998). As for the endogenous constructs, cost-leadership and differentiation scales were adapted from Sun's (2007) scale for relationship performance, while company performance was measured with return on assets as one of the most commonly used financial performance indicators. For all scales (except fixed assets, retained earnings and return on assets) the respondents were asked to express their agreement with a given statement using a five-point Likert-type scale (from 1=completely disagree, to 5=completely agree). The variables were measured in a positive direction or were appropriately recoded later. The questionnaire was tested on ten members of the population.

3.2. Data gathering and sample characteristics

The population was defined as companies registered in Slovenia that had been active for at least three years (to assure the necessary availability of financial data) and had over 10 employees (to eliminate micro companies). Data were gathered in May and June 2008 by sending questionnaires to the Chief Executive Officers of randomly selected companies by post. 500 questionnaires were sent out and, by the end of the data gathering, 182 companies had answered the survey, meaning a response rate of 36.4%.

The respondents were mostly Chief Executive Officers or members of the management board (61.0%) and directors of divisions or business functions (25.8%). With the remaining 13.2%, the respondents were the heads of different (mostly advisory) departments such as strategic controlling, accounting etc. On average, they had worked for their present company for 10.1 years (standard deviation 6.7 years). The described structure of the respondents can be regarded as very satisfactory as in most cases they should have fluently mastered the discussed topics.

Companies ranged from small businesses to large global players. The majority had between 11 and 50 employees (38.4%), followed by companies with 51-250 employees (36.3%) and those with over 250 employees (25.3%). 30.8% of the

companies were from the manufacturing sector, 37.9% from the service sector and 31.3% from the trading sector. 48.9% were founded in 1989 or before, while 51.1% were founded in 1990 (the beginning of the market economy in Slovenia) or later.

3.3. Data analysis

Prior to the LISREL analysis a set of items for each construct was examined in a pre-test using exploratory factor analysis (EFA) to identify those items not belonging to the specified domain. EFA revealed six distinct factors: organisational capital, customer capital, human capital, a combined factor for financial and physical capital, cost-leadership-based competitive advantage and a combined factor for differentiation-based competitive advantage and performance (where the correlation of the measurement variable of performance with this factor was low (0.406)). The properties of the proposed research constructs were then tested with structural equation modelling (SEM). The maximum likelihood method of estimation was adopted. The SEM procedure was appropriate to test the proposed theoretical model because it enabled us to evaluate how well the proposed conceptual model that contains observed variables and unobserved constructs explained or fitted the collected data (Bollen 1989; Hoyle 1995).

4. Empirical analysis and results

4.1. Measurement model

We performed a confirmatory factor analysis (CFA) to test the measurement model. We used the covariance matrix as an input for LISREL 8.72. We trimmed the model by discarding items for each construct where necessary in order to ensure the best fitting model. Since EFA revealed six dimensions, we performed CFA for both six and eight dimensions and compared the model fit. The measurement model with eight dimensions had better fit statistics, therefore this was the model we used in further analysis. The retained measurement variables and the proposed constructs are shown in Table 1. The measurement model has a statistically significant value of the chi-square test ($\chi^2 = 259.90$, $df = 184$, $p < 0.001$). However, the proportion between the chi-square value and degrees of freedom is within an acceptable range ($\chi^2/df = 1.41$). RMSEA (0.048) and the standardised RMR (0.032) show a good fit. All other relevant measures (GFI = 0.885; NFI = 0.968; NNFI = 0.986; CFI = 0.989) are also within an acceptable range, which enables us to conclude that the fit of the measurement model is good (Bollen 1989; Hoyle 1995).

We then tested the item and construct reliability. All items are reliable and all values for composite reliability are above the critical limit (0.70). According to a

complementary measure for construct reliability – the average variance extracted (AVE) – all constructs have good reliability.

We also tested the model for convergent and discriminant validity. Convergent validity was assessed by examining the t-test values of indicator loadings in the measurement model (Anderson/Gerbing 1988). All t-values of the loadings of the measurement variables on respective latent variables were statistically significant. Thus, convergent validity was supported. Discriminant validity was assessed with a chi-square test for pairs of latent variables with a constraining correlation coefficient between two latent variables (ϕ_{ij}) to 1 (Anderson/Gerbing 1988). All unconstrained models had a significantly lower value of the chi-square ($p < 0.001$) than the constrained models, which enables us to conclude that the latent variables were not perfectly correlated and that discriminant validity exists (Bagozzi/Phillips 1982).

Table 1, Overall CFA for the modified measurement model (n = 182)

Constructs and indicators	Completely standardised loading (t-value)	Construct and indicator reliability	AVE and error variance
Physical resources (EX)[(a)]		1.00	1.00
Fixed assets per employee	1.00	1.00	0.00
Financial resources (EX)[(a)]		1.00	1.00
Retained earnings per employee	1.00	1.00	0.00
Human capital (EX)[(a)]		0.95	0.81
The competence of our employees is at the most ideal level we could ever hope to achieve.	0.90 (std.)	0.81	0.19
Our employees are considered creative and bright.	0.88 (17.91)	0.78	0.22
Our employees are widely considered as the best in the whole industry.	0.93 (20.48)	0.87	0.13
If certain individual employees suddenly left, we would be in big trouble.	0.89 (18.11)	0.79	0.21
Structural capital (EX)[(a)]		0.95	0.84
Our information system enables employees to have easy access to relevant information.	0.94 (std.)	0.88	0.12
We develop more new ideas and products/services than any other company in the industry.	0.89 (20.23)	0.79	0.21
When an employee comes up with a great new idea, the knowledge is not shared with other employees as much as it could be.	0.90 (21.49)	0.82	0.18
Our organisational structure keeps employees close to each other so they can better co-operate.	0.93 (23.67)	0.87	0.13
Customer capital (EX)[(a)]		0.95	0.80
Our customers are generally very satisfied with us.	0.92 (std.)	0.85	0.15
We feel confident that our customers will increase the amount of business they do with us.	0.90 (20.39)	0.82	0.18
Our customers are more loyal to us than to any other company in the industry.	0.89 (19.44)	0.79	0.21

In comparison with our competitors' customers the loyalty of our customers is on a much higher level.	0.84 (16.99)	0.71	0.29
The longevity of the relationships we have with our customers is admired by other companies in the industry.	0.91 (20.69)	0.82	0.18
Cost-leadership-based competitive advantage (ED)[(b)]		0.93	0.82
Our costs per unit of product/service are lower than our competitors' costs.	0.95 (std.)	0.89	0.11
We have been continually improving our cost efficiency.	0.89 (19.71)	0.79	0.21
We pride ourselves on being cost efficient.	0.88 (19.37)	0.78	0.22
Differentiation-based competitive advantage (ED)[(b)]		0.89	0.73
In comparison with our competitors' products the quality of our products/services is much better.	0.88 (std.)	0.78	0.22
In comparison with our competitors we are faster in satisfying our customers' needs.	0.82 (13.73)	0.67	0.33
In comparison with our competitors we are more flexible in satisfying our customers' needs.	0.87 (15.05)	0.75	0.25
Company performance (ED)[(b)]		1.00	1.00
Return on assets	1.00	1.00	0.00

Notes: EX = exogenous construct.ED = endogenous construct.

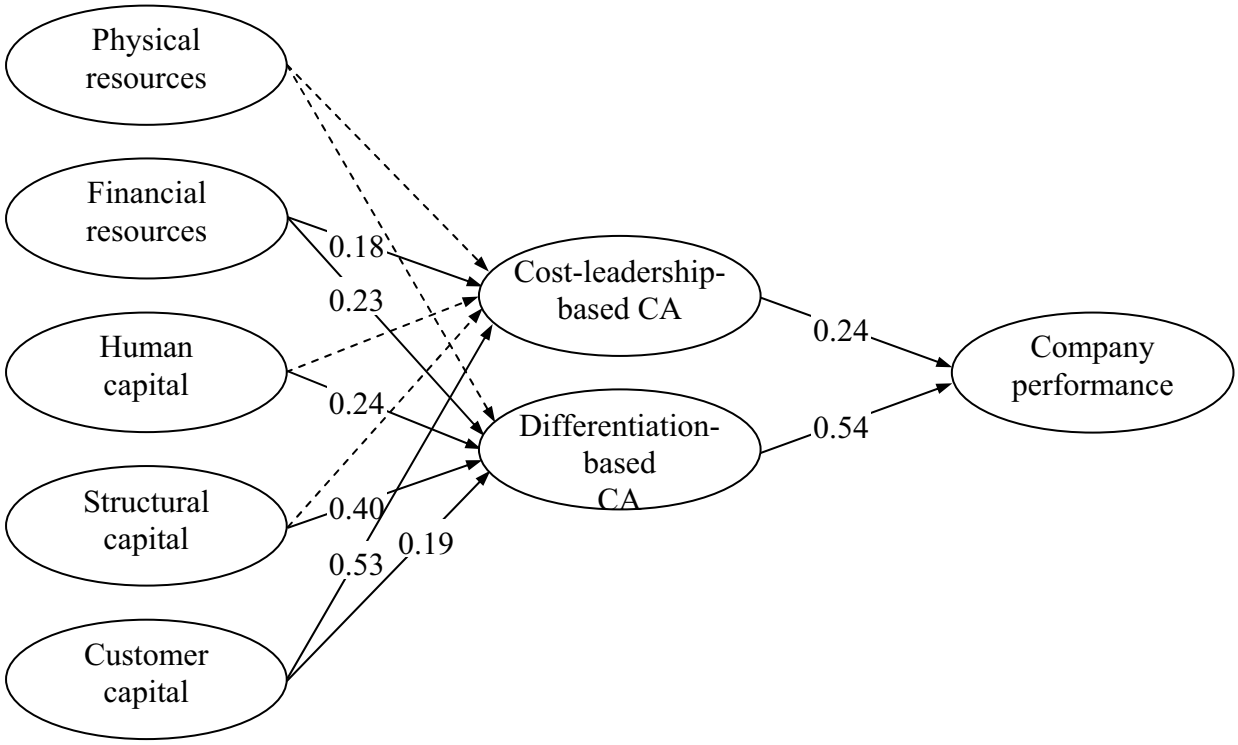
The data were also tested for common method bias (Podsakoff/Organ 1986). We tested the presence of common method bias using Harman's single factor test. We ran a confirmatory factor analysis loading all items on one factor and compared the model fit. The resulting one-factor measurement model had much worse fit indices than the proposed measurement model. Common method bias is therefore not present.

4.2. Structural model

The final structural equation model (see Figure 2) includes the exogenous latent variables of physical resources, financial resources, human capital, structural capital and customer capital and the endogenous latent variables cost-leadership-based competitive advantage, differentiation-based competitive advantage and company performance. Cost-leadership advantage is explained by financial resources and customer capital (50.1% of the variance is explained), differentiation advantage is explained by financial resources, human capital, structural capital and customer capital (55.3% of the variance is explained), while company performance is explained by cost-leadership advantage and differentiation advantage (47.1% of the variance is explained). The dependent variables are therefore well explained by the independent variables. The fit indices for the overall model are also acceptable. Like with the measurement model, the structural model also has a statistically significant value of the chi-square test ($\chi^2 = 273.54$, $df = 190$, $p < 0.001$), but the proportion between the chi-

square value and degrees of freedom is within an acceptable range ($\chi^2/df = 1.44$). All other relevant fit indices are also within an acceptable range (RMSEA = 0.049; standardised RMR = 0.037; GFI = 0.879; NFI = 0.966; NNFI = 0.985; CFI = 0.987).

Figure 2, Final structural model of the relationship among company resources, competitive advantage and performance



Eight out of the twelve parameter estimates were statistically significant and consistent with the proposed direction in the hypotheses (see Table 2). The results are in line with our expectations regarding the effect of a cost-leadership advantage (H_1; standardised coefficient 0.24) and differentiation advantage (H_2; standardised coefficient 0.54) on company performance, the effect of financial resources on a cost-leadership advantage (H_{4a}; standardised coefficient 0.18) and a differentiation advantage (H_{4b}; standardised coefficient 0.23), the effect of human capital on a differentiation advantage (H_{5b}; standardised coefficient 0.24), the effect of structural capital on a differentiation advantage (H_{6b}; standardised coefficient 0.40), and the effects of customer capital on a cost-leadership advantage (H_{7a}; standardised coefficient 0.53) and differentiation advantage (H_{7b}; standardised coefficient 0.19). On the other hand, we could not confirm our hypotheses about the relationships of physical resources with a cost-leadership advantage (H_{3a}) and a differentiation (H_{3b}) advantage, and human (H_{5a}) and structural (H_{6a}) capital with a cost-leadership advantage.

Table 2, Results of testing the hypotheses

Hypotheses	*Proposed direction*	*Standardised path coefficient (t-test)*	*Result*
H_1: Cost-leadership-based CA→ Company performance	+	0.24 (3.59, $p < 0.05$)	Supported
H_2: Differentiation-based CA→ Company performance	+	0.54 (7.54, $p < 0.05$)	Supported
H_{3a}: Physical resources→Cost-leadership-based CA	+	-0.03 (-0.47, $p > 0.05$)	Not supported
H_{3b}: Physical resources → Differentiation-based CA	+	-0.05 (-0.82, $p > 0.05$)	Not supported
H_{4a}: Financial resources→Cost-leadership-based CA	+	0.18 (2.70, $p < 0.05$)	Supported
H_{4b}: Financial resources→ Differentiation-based CA	+	0.23 (3.41, $p < 0.05$)	Supported
H_{5a}: Human capital→Cost-leadership-based CA	+	0.12 (1.67, $p > 0.05$)	Not supported
H_{5b}: Human capital→Differentiation-based CA	+	0.24 (3.36, $p < 0.05$)	Supported
H_{6a}: Structural capital→Cost-leadership-based CA	+	0.15 (1.89, $p > 0.05$)	Not supported
H_{6b}: Structural capital→ Differentiation-based CA	+	0.40 (5.02, $p < 0.05$)	Supported
H_{7a}: Customer capital →Cost-leadership-based CA	+	0.53 (7.36, $p < 0.05$)	Supported
H_{7b}: Customer capital→ Differentiation-based CA	+	0.19 (2.75, $p < 0.05$)	Supported

5. Discussion and implications

The purpose of this study was to add to the body of knowledge on the antecedents of a company's competitive advantage and performance in the post-transitional context by developing and testing a conceptual model in which both basic forms of competitive advantage (cost leadership and differentiation) are conceived as mediating the relationship between company resources (tangible and intangible) and performance.

Theoretical implications

The results support the findings and propositions of other authors (Day/Wensley 1988; Piercy et al. 1998; Spanos/Lioukas 2001; Morgan et al. 2004; Čater/Pučko 2006) about the positive influence of a competitive advantage on a company's performance. Achieving a positional superiority vis-à-vis the competitors therefore does pay. Companies are more successful if they manage to either differentiate themselves from their competitors or reduce the level of their overall costs below their competitors' level while still managing to offer a product of parity. In addition, the higher path coefficient for a differentiation

advantage compared to a cost-leadership advantage confirms the results of some past studies (Caves/Ghemawat 1992; Doyle/Wong 1998; Piercy et al. 1998) that a differentiation advantage has a greater influence on company performance than a cost-leadership advantage.

The findings of this study are also in line with Piercy et al. (1998), Morgan et al. (2004) and Čater and Pučko (2006), who found similar positive effects of different groups of resources on both basic competitive advantage forms. As for tangible resources, the path coefficients show that physical resources have no significant effect on either form of competitive advantage. We can therefore agree with Wu et al. (2006) that other types of capital have replaced physical capital as the primary basis of value creation. On the other hand, financial resources positively affect both a cost-leadership advantage and differentiation advantage, although the effect on a differentiation advantage is stronger. This means that companies which accumulate more financial resources are in a better position to invest some of these resources in their distinctive capabilities, which results in their differentiation vis-à-vis their competitors.

With regard to intangible resources, customer capital is the only component of intellectual capital that significantly affects both a cost-leadership advantage and differentiation advantage. However, as the effect on a cost advantage is much stronger than on a differentiation advantage this finding indirectly confirms the conclusions of several other authors (Holmlund/Kock 1996) that companies can reduce their costs and improve their performance by focusing on present customers instead of concentrating on attracting new ones. Our findings therefore also have important research implications in the fields of a relationship-based competitive advantage and customer relationship management. On the other hand, human capital and structural capital positively affect only a differentiation advantage, while their influence on a cost-leadership advantage is not significant. This means that having creative and competent employees (human capital), who of course demand adequate compensation, and structures and systems that enable knowledge sharing and dissemination (structural capital) can prevent companies from competing on low costs, but at the same time enables them to achieve considerable distinctive capabilities, which lead to a significant differentiation advantage.

Based on the empirical results, a conclusion can be drawn that the different antecedents of competitive advantage addressed by the resource-based school exhibit a relatively different influence on a competitive advantage and, through that, on a company's performance. More important than tangible are intangible resources (as also found by Hitt et al. (2001) and Wu et al. (2006)), especially those directly related to a company as a whole – that is structural and customer capital. In Barney's (1997) language, this means that organisational resources are the most relevant group of resources followed by human resources, financial resources and finally by physical resources. This finding implies an important

conclusion regarding the relevance of the resource-based school. Namely, the classical resource-based school probably fell behind because the traditional (tangible) resources can no longer be a significant source of competitive advantage in the modern knowledge-based competitive environment. Research on internal factors as antecedents of competitive advantage should therefore focus on those variables which are better adapted to more contemporary streams within the resource-based view, such as the knowledge-based view (Grant 1997).

Another important conclusion for the relevance of the resource-based view can be drawn from the fact that we were able to explain 50.1% of the variance of cost leadership advantage and 55.3% of the variance of differentiation advantage (as endogenous latent variables) by including all five groups of the studied resources (as exogenous latent variables) in our model. Explaining slightly over a half of the variance of dependent variables is not at all bad but it also cannot be seen as an outstanding result. This therefore points to still limited explanatory power of the resource-based view. One of the most common critiques of this theoretical stream is that it did not provide a framework for understanding the role of strategy formulation in the creation of a company's superior performance. To address this gap, Ginsberg (1994) suggests the consideration of the so-called sociocognitive capability models, in which (1) rent-producing resources are considered in the context of cognitive and social processes; (2) strategy development capabilities are created in the confluence of these resources and processes; and (3) sociocognitive capabilities are reflected in the intelligence of the strategy developers.

The similarity between our findings and the findings of researchers who have studied similar relationships in established market economies indicates that the fact that our study was conducted in a post-transitional business context did not significantly influence the results. One possible reason for this is that the Slovenian post-transitional business environment (in which most Slovenian companies have already successfully restructured and reoriented themselves towards the EU market) is already very similar to the environment in established market economies. Another possible reason our empirical results are similar to those gathered in established market economies is that intangible resources are more relevant than tangible ones irrespective of the context of the study. To reach a specific conclusion regarding the influence of the post-transitional context we would have to compare our results with the results of similar studies in transitional economies. To our knowledge, however, no such research has been conducted.

Managerial implications

We believe that, besides the theoretical implications, our empirical findings also provide some important practical implications for managers. First, the finding that both a cost-leadership advantage and a differentiation advantage have a

significant influence on a company's performance indicates how important it is for managers to select and implement one of the two basic generic strategies. At the same time, however, the finding that a differentiation advantage has a much stronger influence on company performance than a cost-leadership advantage suggests that it might be wise for managers to emphasise strategies that deliver advantages in the form of a superior product/service rather than cost advantages. The essence of competition should therefore not be understood as merely being about incentives and pressures to minimise costs and keep prices in line with those minimal costs but, much more importantly, about finding new and better ways of doing business.

Second, the relatively stronger (compared to physical and financial resources) path coefficients of all three components of intellectual capital with a (mainly differentiation-based) competitive advantage indicate that companies should strive to build up their competitive advantages on rare (if not unique) intangible resources and not so much on tangible ones. The reason is that valuable intangible resources generally cannot be easily imitated by competitors. Their imperfect imitability is in most cases a direct consequence of their invisibility, complexity, complementarity with other resources and the specific environment in which they were created. On the other hand, tangible resources are visible and chiefly purchased in the market (i.e. not developed within a company), meaning they can also be quite easily either imitated or purchased by competitors. This finding also has a direct implication for a company's investment allocation. Many managers understand investments as something that has to do solely with physical and financial assets, while investments in intellectual capital (e.g. employee training) are still primarily seen as costs. Our findings suggest that investments in intellectual capital are critical, forcing managers to find an appropriate balance between their investments in tangible and intangible resources.

Third, the finding that structural capital is more important than human capital for the creation of a differentiation advantage suggests that companies should try to transform as much of their human capital as possible into structural capital. This does not mean that human capital cannot be profitable. It is profitable but it is also very risky as individual employees can leave the company at anytime and take an important part of their knowledge with them. In the worst case scenario, such human capital can even be appropriated by competitors. Managers should therefore try to transform as many individual-owned resources as possible into company-owned resources by stimulating knowledge-sharing, which necessarily involves a suitable organisational structure, compensation system, team work, employee commitment and passion etc. (Zupan/Kaše 2007; Cardon et al. 2009). If they are successful, at least part of the acquired intangible resources can be "chained" to the company as a whole.

Finally, the strong path coefficient of customer capital with a cost-leadership advantage and the weaker but still significant path coefficient of customer capital with a differentiation advantage should remind managers of the great importance of the knowledge embedded in customer relationships. To be able to increase the level of customer capital and, through that, reduce costs, managers are advised to enhance the relationships with their present customers (rather than constantly concentrate on attracting new customers) through the use of customer relationship management. This business approach, which ultimately leads to greater customer loyalty, involves such activities as adding financial and social benefits to customers as well as creating structural bonds with them (Berry/Parasuraman 1991).

Limitations and opportunities for future research

Irrespective of the important findings of this research, its possible weaknesses should also be mentioned. One limitation lies in the fact that real sources of competitive advantage are usually well hidden, making it impossible for a researcher to measure them completely objectively. For this reason, we had to use managers' relatively subjective assessments of their intangible resources as antecedents of their companies' competitive advantage. In this study we applied Bontis' (1998) scales for the components of intellectual capital (intangible resources) and combined them with some objective indicators for tangible resources. An opportunity for future research would be to use in-depth interviews and to further refine the scales for measuring these constructs.

Related to the constructs, a limitation is also in the minor differences between the results of the exploratory and confirmatory factor analyses. While EFA revealed six factors, CFA showed better model fit for eight factors, supported also with construct/item reliability and discriminant and convergent validity. The differences exist at concepts that are measured with only one measurement variable (financial capital, physical capital and performance). When interpreting results, this is a minor restriction that should be kept in mind. However, the presented model based on CFA outperforms the structure revealed by EFA.

The focus of this study was on the internal factors of a competitive advantage since several researchers (Hansen/Wernerfelt 1989; Rumelt 1991; Roquebert et al. 1996; McGahan/Porter 1997; Mauri/Michaels 1998) point out that they are more relevant than external factors. Although the relative importance of external factors does indeed seem to be smaller, researchers still should not completely forget about them. We therefore oppose any kind of isolationism of both "inside out" and "outside in" approaches to explaining the origins of a competitive advantage as such isolationism could lead to a blurred picture of the actual sources of a competitive advantage. Instead of being seen as solely competitive, the relationship between both approaches should primarily be seen as complementary. Therefore, more comprehensive models in future research could

incorporate constructs representing both the internal and external sources of a competitive advantage.

Finally, our findings are based on a single sample of companies from a post-transitional economy. Even though our proposed model demonstrates a good fit with the data, we recognise that results could be specific to our particular sample. Therefore, further research should provide a cross-validation with the same instruments and other samples to validate our findings and to check if the model fits beyond the sample used for this study. An opportunity for future research is therefore to test the model and compare the results in transitional, post-transitional and established market economies.

References

Amit, R./Schoemaker, P.J.H. (1993): Strategic assets and organizational rent, in: Strategic Management Journal, 14, 1, 33-46.

Anderson, J.C./Gerbing, D.W. (1988): Structural equation modeling in practice: A review of recommended two-step approach, in: Psychological Bulletin, 103, 3, 411-423.

Appiah-Adu, K./Singh, S. (1998): Customer orientation and performance: A study of SMEs, in: Management Decision, 36, 6, 385-394.

Appuhami, R.B.A. (2007): The impact of intellectual capital on investors' capital gains on shares: An empirical investigation of Thai banking, finance & insurance sector, in: International Management Review, 3, 2, 14-25.

Arenas, T./Lavanderos, L. (2008): Intellectual capital: Object or process?, in: Journal of Intellectual Capital, 9, 1, 77-85.

Bagozzi, R.P./Phillips, L.W. (1982): Representing and testing organizational theories: A holistic construal, in: Administrative Science Quarterly, 27, 3, 459-489.

Bain, J.S. (1956): Barriers to new competition: Their character and consequences in manufacturing industries. Cambridge: Harvard University Press.

Bamberger, I. (1989): Developing competitive advantage in small and medium-size firms, in: Long Range Planning, 22, 5, 80-88.

Barney, J.B. (1986): Strategic factor markets: Expectations, luck and business strategy, in: Management Science, 32, 10, 1231-1241.

Barney, J.B. (1991): Firm resources and sustained competitive advantage, in: Journal of Management, 17, 1, 99-120.

Barney, J.B. (1997): Gaining and sustaining competitive advantage. Reading: Addison-Wesley.

Berry, L.L./Parasuraman, A. (1991): Marketing services: Competing through quality. New York: Free Press.

Bible, L./Kerr, S./Zanini, M. (2006): The balanced scorecard: Here and back, in: Management Accounting Quarterly, 7, 4, 18-23.

Bollen, K.A. (1989): Structural equations with latent variables. New York: John Wiley & Sons.

Bontis, N. (1998): Intellectual capital: An exploratory study that develops measures and models, in: Management Decision, 36, 2, 63-76.

Bontis, N. (1999): Managing organizational knowledge by diagnosing intellectual capital: Framing and advancing the state of the field, in: International Journal of Technology Management, 18, 5-6-7-8, 433-463.

Bourne, M.(ed.) (2005): Reflections on the role, use and benefits of corporate performance measurement in the UK, in: Measuring Business Excellence, 9, 3, 36-40.

Cadez, S./Guilding, C. (2008): An exploratory investigation of an integrated contingency model of strategic management accounting, in: Accounting, Organizations and Society, 33, 7-8, 836-863.

Cardon, M.S.(ed.) (2009): The nature and experience of entrepreneurial passion, in: Academy of Management Review, 34, 3, forthcoming.

Caves, R.E./Ghemawat, P. (1992): Identifying mobility barriers, in: Strategic Management Journal, 13, 1, 1-12.

Chen, J./Cheng, S.J./Hwang, Y. (2005): An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance, in: Journal of Intellectual Capital, 6, 2, 159-176.

Clarke, C.J. (1988): Using finance for competitive advantage, in: Long Range Planning, 20, 2, 63-69.

Coff, R.W. (1999): When competitive advantage doesn't lead to performance: The resource-based view and stakeholder bargaining power, in: Organization Science, 10, 2, 119-132.

Conner, K.R. (1991): Historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of a firm?, Journal of Management, 17, 1, 121-154.

Coyne, K.P. (1986): Sustainable competitive advantage – what it is and what it isn't, in: Business Horizons, 29, 1, 54-61.

Čater, T. (2005): Interweaving of the sources and forms of a firm's competitive advantage: A critical review of the adequacy of existing schools of thought, in: Journal for East European Management Studies, 10, 1, 7-36.

Čater, T./Pučko, D. (2006): Models of competition between firms, in: Journal for East European Management Studies, 11, 2, 140-172.

Day, G.S./Wensley, R. (1988): Assessing advantage: A framework for diagnosing competitive superiority, in: Journal of Marketing, 52, 2, 1-20.

Dierickx, I./Cool, K. (1989): Asset stock accumulation and sustainability of competitive advantage, in: Management Science, 35, 12, 1504-1511.

Domadenik, P./Prašnikar, J./Svejnar, J. (2008): Restructuring of firms in transition: Ownership, institutions and openess to trade, in: Journal of International Business Studies, 39, 4, 725-746.

Doyle, P./Wong, V. (1998): Marketing and competitive performance: An empirical study, in: European Journal of Marketing, 32, 5-6, 514-535.

Edvinsson, L. (1997): Developing intellectual capital at Scandia, in: Long Range Planning, 30, 3, 366-373.

Edvinsson, L./Malone, M.S. (1997): Intellectual capital: The proven way to establish your company's real value by measuring its hidden brainpower. London: Piatkus.

Edvinsson, L./Sullivan, P. (1996): Developing a model for managing intellectual capital, in: European Management Journal, 14, 4, 356-364.

Faulkner, D./Bowman, C. (1992): Generic strategies and congruent organisational structures: Some suggestions, in: European Management Journal, 10, 4, 494-500.

Freeman, E.R. (1984): Strategic management: A stakeholder approach. London: Pitman Publishing.

Ginsberg, A. (1994): Minding the competition: From mapping to mastery, in: Strategic Management Journal, 15, Winter Special Issue, 153-174.

Grant, R.M. (1991): The resource-based theory of competitive advantage: Implications for strategy formulations, in: California Management Review, 33, 3, 114-135.

Grant, R.M. (1997): The knowledge-based view of the firm: Implications for management practice, in: Long Range Planning, 30, 3, 450-454.

Hansen, G.S./Wernerfelt, B. (1989): Determinants of firm performance: The relative importance of economic and organizational factors, in: Strategic Management Journal, 10, 5, 399-411.

Hatch, N.W./Dyer, J.H. (2004): Human capital and learning as a source of sustainable competitive advantage, in: Strategic Management Journal, 25, 12, 1155-1178.

Helms, M.M./Ettkin, L.P. (2000): Time-based competitiveness: A strategic perspective, in: Competitiveness Review, 10, 2, 1-14.

Henri, J.-F. (2006): Are your performance measurement systems truly performing?, in: CMA Management, 80, 7, 31-35.

Hernaus, T./Škerlavaj, M./Dimovski, V. (2008): Relationship between organisational learning and organisational performance: The case of Croatia, in: Transformations in Business & Economics, 7, 2, 32-48.

Hitt, M.A. (ed.) (2001): Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective, in: Academy of Management Journal, 44, 1, 13-28.

Hoffman, N.P. (2000): An examination of the "sustainable competitive advantage" concept: Past, present, and future, in: Academy of Marketing Science Review, 2000, 4, 1-16.

Holmlund, M./Kock, S. (1996): Relationship marketing: The importance of customer-perceived service quality in retail banking, in: The Service Industries Journal, 16, 3, 287-304.

Hoyle, R.H. (1995): Structural equation modeling: Concepts, issues, and applications. Thousand Oaks: Sage Publications.

Hsu, I.-C./Lin, Y.-Y./Lawler, J.J./Wu, S.-H. (2007): Toward a model of organizational human capital development: Preliminary evidence from Taiwan, in: Asia Pacific Business Review, 13, 2, 251-275.

Hunger, D.J./Wheelen, T.L. (1996): Strategic management. Reading: Addison-Wesley.

Hussi, T. (2004): Reconfiguring knowledge management – combining intellectual capital, intangible assets and knowledge creation, in: Journal of Knowledge Management, 8, 2, 36-52.

Kaplan, R.S./Norton, D.P. (1992): The balanced scorecard: Measures that drive performance, in: Harvard Business Review, 70, 1-2, 71-79.

Kotha, S./Vadlamani, B.L. (1995): Assessing generic strategies: An empirical investigation of two competing typologies in discrete manufacturing industries, in: Strategic Management Journal, 16, 1, 75-83.

Kroll, M./Wright, P./Heiens, R.A. (1999): The contribution of product quality to competitive advantage: Impacts on systematic variance and unexplained variance in returns, in: Strategic Management Journal, 20, 4, 375-384.

Kujansivu, P./Lönnqvist, A. (2007): Investigating the value and efficiency of intellectual capital, in: Journal of Intellectual Capital, 8, 2, 272-287.

Lin, K.-J./Wang, M.-L. (2005): The classification of human capital according to the strategic goals of firms: An analysis, in: International Journal of Management, 22, 1, 62-70.

Ma, H. (1999): Creation and preemption for competitive advantage, in: Management Decision, 37, 3, 259-266.

Ma, H. (2000): Competitive advantage and firm performance, in: Competitiveness Review, 10, 2, 53-64.

Mahoney, J.T./Pandian, R.J. (1992): The resource-based view within the conversation of strategic management, in: Strategic Management Journal, 13, 5, 363-380.

Maijoor, S./Van Witteloostuijn, A. (1996): An empirical test of the resource-based theory: Strategic regulation in the Dutch audit industry, in: Strategic Management Journal, 17, 7, 549-569.

Marr, B./Moustaghfir, K. (2005): Defining intellectual capital: A three-dimensional approach, in: Management Decision, 43, 9, 1114-1128.

Marr, B./Schiuma, G./Neely, A. (2004): The dynamics of value creation: Mapping your intellectual performance drivers, in: Journal of Intellectual Capital, 5, 2, 312-325.

Mason, E.S. (1939): Price and production policies of large-scale enterprises, in: American Economic Review, 29, 3, 61-74.

Mauri, A.J./Michaels, M.P. (1998): Firm and industry effects within strategic management: An empirical examination, in: Strategic Management Journal, 19, 3, 211-219.

McGahan, A.M./Porter, M.E. (1997): How much does industry matter, really?, in: Strategic Management Journal, 18, Summer Special Issue, 15-30.

Michalisin, M.D./Smith, R.D./Kline, D.M. (1997): In search of strategic assets, in: International Journal of Organizational Analysis, 5, 4, 360-387.

Morgan, N.A./Kaleka, A./Katsikeas, C.S. (2004): Antecedents of export venture performance: A theoretical model and empirical assessment, in: Journal of Marketing, 68, 1, 90-108.

Nonaka, I./Takeuchi, H. (1995): The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford: Oxford University Press.

Olavarrieta, S./Friedmann, R. (2008): Market orientation, knowledge-related resources and firm performance, in: Journal of Business Research, 61, 6, 623-630.

Ordóñez de Pablos, P. (2005): Western and Eastern views on social networks, in: The Learning Organization, 12, 5, 436-456.

Penrose, E.T. (1959): The theory of the growth of the firm. New York: Wiley.

Peteraf, M.A. (1993): The cornerstones of competitive advantage: A resource-based view, in: Strategic Management Journal, 14, 3, 179-191.

Peteraf, M.A./Barney, J.B. (2003): Unraveling the resource-based tangle, in: Managerial and Decision Economics, 24, 4, 309-323.

Piercy, N.F./Kaleka, A./Katsikeas, C.S. (1998): Sources of competitive advantage in high performing exporting companies, in: Journal of World Business, 33, 4, 378-393.

Podsakoff, P.M./Organ, D.W. (1986): Self-reports in organizational research: Problems and prospects, in: Journal of Management, 12, 4, 531-544.

Porter, M.E. (1980): Competitive strategy: Techniques for analyzing industries and competitors. New York: Free Press.

Porter, M.E. (1981): The contributions of industrial organization to strategic management, in: Academy of Management Review, 6, 4, 609-620.

Porter, M.E. (1985): Competitive advantage: Creating and sustaining superior performance. New York: Free Press.

Powell, T.C. (1993): Administrative skill as competitive advantage – extending Porter's analytical framework, in: Canadian Journal of Administrative Sciences, 10, 2, 141-153.

Prahalad, C.K./Hamel, G. (1990): The core competence of the corporation, in: Harvard Business Review, 68, 5-6, 79-93.

Roquebert, J.A./Phillips, R.L./Westfall, P.A. (1996): Markets vs. management: What 'drives' profitability?, in: Strategic Management Journal, 17, 8, 653-664.

Rumelt, R.P. (1991): How much does industry matter?, in: Strategic Management Journal, 12, 3, 167-185.

Ruzzier, M./Antoncic, B. (2007): Social capital and SME internationalization: An empirical examination, in: Transformations in Business and Economics, 6, 1, 122-138.

Ruzzier, M. (ed.) (2007): Human capital and SME internationalization: A structural equation modeling study, in: Canadian Journal of Administrative Sciences, 24, 1, 15-29.

Sashi, C.M./Stern, L.W. (1995): Product differentiation and market performance in producer goods industries, in: Journal of Business Research, 33, 2, 115-127.

Spanos, Y.E./Lioukas, S. (2001): An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource-based perspective, in: Strategic Management Journal, 22, 10, 907-934.

Sullivan, P./Kang, J. (1999): Quick response adoption in the apparel manufacturing industry: Competitive advantage of innovation, in: Journal of Small Business Management, 37, 1, 1-13.

Sun, P.-C. (2007): The correlations among domain knowledge specificity, joint new product development and relationship performance, in: International Journal of Commerce & Management, 17, 1-2, 44-55.

Swart, J. (2006): Intellectual capital: Disentangling an enigmatic concept, in: Journal of Intellectual Capital, 7, 2, 136-159.

Škerlavaj, M. (ed.) (2007): Organizational learning culture: The missing link between business process change and organizational performance, in: International Journal of Production Economics, 106, 2, 346-367.

Tayles, M./Pike, R.H./Sofian, S. (2007): Intellectual capital, management accounting practices and corporate performance: Perceptions of managers, in: Accounting, Auditing & Accountability Journal, 20, 4, 522-548.

Verhees, F.J.H.M./Meulenberg, M.T.G. (2004): Market orientation, innovativeness, product innovation, and performance in small firms, in: Journal of Small Business Management, 42, 2, 134-154.

Wang, W.Y./Chang, C. (2005): Intellectual capital and performance in causal models: Evidence from the information technology industry in Taiwan, in: Journal of Intellectual Capital, 6, 2, 222-236.

Wernerfelt, B. (1984): A resource-based view of the firm, in: Strategic Management Journal, 5, 2, 171-180.

Williamson, O. (1975): Markets and hierarchies. New York: Free Press.

Wright, P.M./McMahan, G.C./McWilliams, A. (1994): Human resources and sustained competitive advantage: A resource-based perspective, in: International Journal of Human Resource Management, 5, 2, 301-326.

Wu, W.Y. (ed.) (2006): Assessment of intellectual capital management in Taiwanese IC design companies: Using DEA and the Malmquist productivity index, in: R and D Management, 36, 5, 531-545.

Zupan, N./Kaše, R. (2005): Strategic human resource management in European transition economies: Building a conceptual model on the case of Slovenia, in: International Journal of Human Resource Management, 16, 6, 882-906.

Zupan, N./Kaše, R. (2007): The role of HR actors in knowledge networks, in: International Journal of Manpower, 28, 3-4, 243-259.