Recent research has revealed that exporters from the SEE region are not significantly more resilient to recession than companies focused on domestic markets; they are not necessarily employing more staff than average or paying higher salaries (Botrić and Broz 2016). The same research also revealed that smaller exporters are more volatile in terms of growth and employment to recessions than larger exporters. This is contrary to findings on the hidden champion type of companies, which are small and medium-sized companies that seem to consistently grow and manage to operate in international markets even during market recessions and financial turmoil (Simon 1996, 2009; McKiernan and Purg 2013).

The author of the concept of the "hidden champion" type of company, Hermann Simon, initially studied the phenomenon in the 1990s to explain how German small and medium-sized enterprises more consistently (and during recessions) contributed to the export activities of the Germany economy more than highly visible corporations such as Volkswagen, Siemens, BASF, Bosch, etc. Simon named these companies "hidden champions" because they hold revenue below 4 billion USD (they are small) and possess low levels of public awareness (they are hidden), and yet consistently hold the number one, two, or three position in the global market, or number one in the company's

**Abstract**

This paper sheds light on factors that support SMEs becoming market leaders on an international scale. Specifically, it studies the hidden champion type of companies, defined as SMEs that hold market leadership in narrow business segments on a regional or wider international scale. The market positioning of hidden champions is defined subjectively by CEOs in such a way that they create a high level of business attractiveness. This explorative study reveals that product leadership and customer intimacy are two blocks that build the business attractiveness of hidden champions. More specifically, the study on data from 93 niche leaders from Central and Eastern Europe showed that product leadership negatively moderates the business attractiveness-performance relationship, while the impact of the combination of product leadership and customer intimacy on the business attractiveness-firm performance relationship is not straightforward and depends on different combinations of these values.

**Key words:** strategy, value proposition, industry attractiveness, product leadership, customer intimacy.

**INTRODUCTION**

Recent research has revealed that exporters from the SEE region are not significantly more resilient to recession than companies focused on domestic markets; they are not necessarily employing more staff than average or paying higher salaries (Botrić and Broz 2016). The same research also revealed that smaller exporters are more volatile in terms of growth and employment to recessions than larger exporters.

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continent, as determined by market share (they are market leaders, hence real champions).

Simon (1996) and subsequent research (Simon 2009; Rache 2003; Rammer and Spielkamp 2015) revealed that hidden champions’ success can be attributed to specific elements of their strategy: they set very high aspirations for gaining the market leadership position internationally; this aspiration is not purely quantitative, as stated in sales growth and market share targets, but includes elements such as shaping the rules of the game and influencing trends in their designated markets, making in consequence their markets more attractive for them (and less attractive for others). They are successful at bringing this aspiration to reality by pursuing a strategy of specialization in complex, complicated technological products and services in the B2B sector (Simon 1996; 2009; Witt and Carr 2014). A major characteristic of hidden champions is also a high level of innovation, both incremental and breakthrough innovations within the area of their specific market niche with a goal of making their niche and business more appealing. The innovation that gains product leadership in terms of quality, reliability and technological advancement involves charging a significant mark-up. Last but not least, Simon’s repeated research on German hidden champions a decade later uncovered that hidden champions invest more and more into customers to become a sort of system provider to their clients. As a result, the emerging element of hidden champion strategy is customer intimacy (Simon 2009).

Research on hidden champions has been repeated over many countries and economies, yet has been mostly professional in nature, with limited statistical validity and reliability (Blackburn et al. 2001). However, the recent research of Schlepphorst et al. (2016) has closed down this gap via the econometric testing of differences in different elements of strategy between hidden champion and non-hidden champion types of internationalized SMEs. The econometric models confirmed two distinct features of hidden champions that are statically different from non-hidden champions. First, they implement the strategy of product leadership, through which they gain market leadership. Second, the strategy of product leadership is achieved via intensive R&D activities and also via improvement of technological processes. Third, these innovations are purely generated by HC employees and not via alliances or other forms of innovation creation. However, the econometric models did not explore whether customer intimacy provides significant differentiation between hidden champions and non-hidden champions.

In this research paper we would like to close this research gap and explore two issues on a sample of hidden champion companies from Central and Eastern Europe: (1) whether hidden champions from the CEE region apply the strategy of product leadership as a path to shape the attractiveness of their market niches; and (2) whether customer intimacy plays a significant role in the effectiveness of the strategy of product leadership; and (3) if so, whether customer intimacy plays any significant role in shaping the influence of the attractiveness of market niches.

More specifically, we study the moderating impact of product leadership and customer intimacy on the relationship between business attractiveness and firm performance on a sample of hidden champion companies from Central and Eastern Europe. We attempt to contribute to the existing strategic literature in three ways. First, by showing that the small and medium sized companies can shape the influence of attractiveness of their market niches we imply that SMEs hold substantial market power in the form of niche-makers. We contribute to the literature on the internationalization of SMEs. Second, we reveal the strategic characteristics of a subgroup of companies from the CEE region which, despite their size, have grown fast and seem to be more resilient to recession than the average exporter. Such an explorative approach to these types of companies can also serve policy makers to consider how to create institutional and other support mechanisms for the emergence of a new type of hidden champion.

The remainder of this paper is organized into four parts. The second section briefly reviews the literature on the strategy of differentiation, business attractiveness, and firm performance. In the third section three hypotheses that outline the moderating impact of value propositions (product leadership, customer intimacy) on the effect of business attractiveness on firm performance are refined. The fourth section outlines the research method, including how variables were measured, and data were sampled and gathered. The fifth section presents the results and limitations of the research. The results are discussed in the final section, concluding with a brief section on the implications for practice, and the limitations of the study.

VALUE PROPOSITION, BUSINESS ATTRACTIVENESS, AND FIRM PERFORMANCE

Hidden champions are niche-oriented global (regional) players (Simon 1996, 2009). These companies achieve top three global market positions, or regional dominance, while staying remarkably focused and
proactive, often in obscure niche sectors such that their revenues remain below 4 bio USD (Simon 2009). Despite their outstanding performance, there is still very little clarification on hidden champions’ exact strategic behaviour. Therefore, Witt and Carr (2013) argue that hidden champions should be more systematically studied using the rigours of scholarly strategic-organizational frameworks. In this paper we attempt to connect the strategic behaviour of hidden champions with elemental concepts of strategic thinking, namely where to compete and how to compete. We address the phenomena of hidden champions with the frameworks of a deterministic school of strategy (Porter 1980, 1985). Specifically, we look at the question of where to compete from the perspective of business attractiveness and how to compete from the perspective of product leadership and customer intimacy. We explore the proposition of whether hidden champions shape their niched and business attractiveness by approaches such as product leadership and customer intimacy; and if yes, which of the two approaches is a more effective strategic mechanism of performance.

From the perspective of a deterministic school of strategy, firm performance is a function of company positioning. Positioning consists of two choices: where to compete and how to compete (Porter 1980; McGahan and Porter 1997). In relation to the former (where to compete), companies need to choose combinations of products and customer need similarities. These combinations define business attractiveness (Wit and Meyer 1994). However, business attractiveness is foremost a perceptual phenomenon held in the eye of beholder, in this case by the top management (Ellegaard and Ritter 2007). More specifically, Ellegaard and Ritter (2007) proposed that perceived business attractiveness is an outcome of management emotions, value creation mechanism, and the customer interaction process, whereby value creation involves innovation development and market access, while interaction involves processes that build up trust, satisfaction and a resulting commitment between suppliers and customers.

Value creation and the customer interaction process correspond nicely with Treacy and Wiersema (1993) on product leadership and customer intimacy, who present two distinct, internally consistent approaches to competing. In relation to the later (how to compete), companies must select a way of competing within a selected scope of doing business (Porter 1985), whereby hidden champions follow a very narrow scope, a niche, which together with product leadership and customer intimacy creates an “alchemic” reaction of resilient, growth-oriented firm performance (Simon 2009; Leitner and Guldenberg 2010).

To sum up, if firm performance is a function of business attractiveness, as well as product leadership and customer intimacy as two distinct approaches to competing and differentiating the firm from competitors, the question remains how the indirect effects of the interplay between business attractiveness, product leadership and customer intimacy shape firm performance. These indirect effects are hypothesized in the following section.

**HYPOTHESES**

In this study we examine how the indirect effects of the interplay between business attractiveness, product leadership and customer intimacy shape firm performance with three hypotheses that we further test on sample data from 93 niche leaders from Central and Eastern Europe.

Product leadership is inwardly-oriented, focused on product and technology. In the most general terms, product leadership constitutes superior technological solutions in a given line of business (Christensen and Raynor 2003). Product leadership is sometimes misplaced by product innovation, yet the two are not the same. Product leadership incorporates intense product and process innovation, but also market development capability (Lew and Sinkovics 2013).

Generally, the literature on product and process innovation, market development capability and product leadership argues for a positive impact on firm performance. The main argument behind this is that product leadership presents an internally consistent set of choices about the design of an activity system (Porter 1985; Treacy and Wiersema 1993; Stabell and Fjeldstad 1998; Porter and Siggelkow 2004). The business activity system is designed around novelty, whereby research has confirmed that the novelty-centered activity system exhibits a positive impact on firm performance (Zott and Amit 2008).

Product leadership is an effective strategic response in unstable and complex business environments (Miller 1988), because in such settings experiments learning from failure and local search are the most effective approaches to strategy, competitive advantage and market development (Gavetti and Rivkin 2007). However, other streams of research on product innovation have shown that in environments with high product complexity and lots of product innovations and variations, firm performance decreases because: (1) customers face difficulties distinguishing superior products from inferior ones (Friar 1995); (2) hasty new product innovations lead to poorer product
quality (Calantone, Schmidt, and Benedetto 1997), and (3) frequent product innovations increases competitive rivalry (D’Aveni, Gunther, and Harrigan 1995; Larsen, Markides, and Nattermann 2003). Basically, product leadership via innovation may have a negative impact on firm performance because it makes with some time the lag niche structurally less attractive (Porter 1991). Lee et al. (2000) found that new product introductions have a positive, significant impact on short-term stock prices and also increase rivals’ imitation and competitive rivalry, which results in stock price decreases in the longer term.

Due to our first research question on whether hidden champions from the CEE region apply the strategy of product leadership as a path to shape the attractiveness of their market niches we empirically test the following hypothesis based on the ambiguities of the above arguments:

**Hypothesis 1.** Product leadership negatively moderates the effect of business attractiveness on firm performance.

Customer intimacy is outwardly-oriented, or focused on customers. A cornerstone of customer intimacy is close, trustful, and durable relationships with customers (Bove and Johnson 2001). Customer intimacy, referred also as customer closeness, is established and sustained via a focus on particular customer problems, and the search for the best possible solutions for the identified problems. From the activity system perspective it is also referred to as a value shop (Stabell and Fjeldstad 1998). The core activities a firm performs to establish customer intimacy are: customer intelligence, intelligence dissemination, and customer responsiveness (Kohli and Jaworski 1990).

Customer intimacy improves customer retention rate (Verhoef 2003); maximizes the revenues from existing customers and minimizes customer acquisition costs (Reichheld and Sasser 1990); improves employee satisfaction, customer satisfaction, loyalty, profitability (Heskett and Schlesinger 1994; Heskett, Sasser, and Schlesinger 1997; Liljander 2000), enhances cash flows, lowers the volatility and vulnerability of cash flows, and increases the residual value of cash flows (Srivastava, Shervani, and Fahey 1999).

Customer intimacy allows for a better understanding of customer preferences and needs. Because consumers’ preferences are fuzzy, unstable, and liable to influence, and being close to the customer allows suppliers to shape and influence their preferences, in addition to serving existing preferences (Simonson 1993). Specifically, firms with high customer intimacy can either: (1) shape the set of alternatives under consideration; (2) shape the criteria in which alternatives are evaluated; (3) shape the descriptions of alternatives; (4) impact the timing and quantity of purchasing decisions; and (5) add features and promotions with limited perceived value to a brand choice. Customer intimacy in general allows shaping products and services in such a way as to make the business landscape more attractive (Ellegaard and Ritter 2007).

Yet, on the other hand, because product leadership and customer intimacy require different business systems design, bundling them together under one roof can create many design conflicts (Hagel and Singer 1999; Fjeldstad and Haanaes 2001). We explore this paradox in greater detail in next section.

Many authors have showed that the joining of customer intimacy with product leadership can be advantageous to the firm. For instance, in the case of product leadership characterized by numerous product variations, customers are unable to differentiate products on the basis of functional performance, and thus the company also needs to establish product superiority in customers’ minds through customer intimacy (Friar 1995). Next, customers are one of the most important sources of information for successful innovations in terms of product leadership. Pejić-Bach, Lojpur, Peković and Stanovčić (2015) in their cross-sectional study of usage of different information sources’ influence on internal and external research and development (R&D) activities in Croatia, France and the Netherlands in 2006-2008, showed that customers are one of the most reliable and useful sources of information of any kind of innovation. A similar finding was obtained by Zhou, Brown, and Dev (2009) in their global hotel industry study, where they found that the greater a firm’s customer closeness, the more the firm is able to develop a competitive advantage based on offer (product) innovation and business differentiation. Gruner and Homburg (2000) showed that during early product development stages customer intimacy has a positive impact on new product success and future company sales figures. In relation to our second research question on whether customer intimacy plays a significant role in the effectiveness of the strategy of product leadership we empirically test the following hypothesis:

**Hypothesis 2.** Customer intimacy positively moderates the effect of product leadership on firm performance.

Customer intimacy also has a positive impact on firm performance in later stages of product maturity, when companies design new offerings that include a
higher degree of service content (Vandermerwe and Rada 1989) in order to reduce the tendency of product commoditization (Christensen 1997). This phenomenon is also referred to as ‘servitization’ (Robinson, Clarke-Hill, and Clarkson 2002). Servitization underlies a shift from selling innovative products to selling integrated products coupled with service and customer intimacy (Baines et al. 2009; Simon 2009). The majority of studies reported a positive relationship between company performance and the servitization of manufacturing firms (Mathieu 2001; Neely, Benedettini, and Visnjic 2008; Kindström 2010). A merger of product leadership with customer intimacy has thus positive performance effects.

Based on the above findings, we explore how the effect of business attractiveness on firm performance depends on a combination of different levels of product leadership and customer intimacy with the empirical test of the following hypothesis:

**Hypothesis 3. The combined effect of product leadership and customer intimacy on business attractiveness-firm performance relationship depends on the combination of their levels.**

**METHODS**

The hypotheses were tested on a sample of niche leader firms from Central and Eastern Europe, where the original measured variables were combined based on the results of exploratory factor analysis (Dillon and Goldstein 1984; Field 2000; Lattin, Carroll, and Green 2003; DiStefano, Zhu, and Mindrila 2009). The influence of business attractiveness on firm performance with product leadership and customer intimacy as moderators was observed using multiple regression analyses and interpreting interactions (Aiken and West 1991, Hayes 2013, Dawson 2014). Analyses were made with the program IBM SPSS Statistics, Version 21. More detailed observations were obtained with PROCESS (Hayes 2013), the add-on for SPSS.

**DATA GATHERING AND SAMPLE**

The sample for testing the above hypothesis is composed of hidden champions from the CEE region and Turkey (McKiernan and Purg 2013). Hidden champions from the CEE region are defined by three criteria (Simon 2009; McKiernan and Purg 2013): (1) they hold position number one, two, or three in the global market, or number one on the company’s continent or at least the CEE region, as determined by market share; (2) they have revenues below $4 billion; and (3) they have a low level of public awareness.

The hidden champion type of sample was chosen for two reasons: first, product leadership and customer intimacy are core value propositions that account for competitive differentiations (Simon 1996; Simon 2009); second, a hidden champion type of firm holds substantial market share on an international scale and thus they are the leaders in specific lines of business (Porter 1985).

The sample included the following countries: Albania, Belarus, Bosnia and Herzegovina, Croatia, the Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Macedonia, Poland, Romania, the Russian Federation, Serbia, the Slovak Republic, Slovenia, Turkey, and Ukraine. Overall, 32 field-researchers from 18 countries identified 112 hidden champions (HCs). In the process of identifying HCs, field-researchers carefully scanned various sources of information, ranging from national to international statistical reports, economic studies, databases and networks of research and education institutions, business rankings, journal articles and business magazines, constancy reports, information available through ministries, chambers of commerce, and other public bodies. Field researchers then requested to interview the CEOs of identified hidden champion companies and after the interview filled the questionnaire developed by Herman Simon (Simon 2009). Completed questionnaires were the last stage of data gathering sent for checking and approval to the CEO (Balas Rant 2013).

The sample of hidden champion companies carry considerable variability in terms of industry, size and age. Companies in the sample came from the following industrial sectors: manufacturing of machinery and equipment, chemicals, electrical, the electronic industry, paper industry, transportation, the automotive industry, and/or steel industry, food industry, textiles, ICT and nano-tech, consumer products production, and pharmaceutical products. The size measured with the number of employees varies significantly: the number of employees ranges from a minimum of 1 to a maximum of 185,000 employees, with the average 2,720 employees, the sample standard deviation 17,536 employees, and the median 297.5 employees. From age perspective, the youngest firm in the sample is three years old and the oldest is 140 years, the average in years is 25, the sample standard deviation is 22 years, and the median is 19 years.

Due to the incomplete data, we had to exclude 18 companies from further analysis, so the final sample included 93 firms.
**DEPENDENT VARIABLES**

We used the internal Simon (2009) questionnaire for hidden champions (the full hidden champions diagnostic questionnaire has not been published in academic journals; however, it is accessible at the Institut für Mittelstandsforschung, Bonn). We extracted nine performance indicators: capacity utilization (CU), ensuring survival in the market (SM), employee satisfaction (ES), profit (PRF), cost savings (CS), competitive position (CP), growth (GRW), overall satisfactory (OPS), and performance through recession (PRI). The indicators were assembled into two second order constructs of efficiency (EFI) and effectiveness (EFE). The CEO of the company needed to assess satisfaction with performance indicators over the last decade (2000-2010).

Descriptive statistics and bivariate linear correlations showed many significant correlations among the measured variables, so we decided to reduce the dimensionality. We used an exploratory FA and reduced the dimensionality with the calculation of averages (DiStefano et al. 2009). Factor analysis showed two main factors, presented in the Appendix in Table A1. Based on these results, the following two constructs for firm performance as measures of efficiency and effectiveness are used:

- **EFI** – efficiency (the average of cost savings, employee satisfaction, and capacity utilization)
- **EFE** – effectiveness (the average of competitive position, growth, profit, ensuring survival in the market, overall satisfactory, and performance through recession).

For efficiency the Cronbach’s Alpha is 0.750, and for effectiveness 0.846.

**EXPLANATORY VARIABLES AND MODERATORS**

We were interested to observe how business attractiveness, product leadership, and customer intimacy influence firm performance. In our data, business attractiveness is measured by the market size, which is measured on a 7-point Likert scale (1-Strongly decreased, 4-Not changed, 7-Strongly increased). We also used the Simon (2009) questionnaire for hidden champions’ core competences scheme of 8 competence indicators: product quality (STR_Q), on-time delivery (STR_OT), ratio price to performance (STR_RPP), information system (STR_IS), flexibility (STR_FLX), pre-sales (STR_PSAD), after-sales service (STR_ASAD), and cooperation (STR_COOP). Each indicator was assessed from the perspective of firm positioning along with specific indicators relative to the strongest competitor (i.e., the firm is better or worse off on a 1-7 Likert scale). Since in the case of the hidden champion type of companies there is no strong unambiguous theoretical base for combining indicators into desired constructs, we identified the common factors with an exploratory factor analysis, and then combined the related indicators into new constructs with a calculation of averages (DiStefano et al. 2009). The results of the FA showed two main factors, which are presented in the Appendix in Table A2. According to the obtained relations, we defined two variables that we further used also as moderators:

- **PL** – product leadership:
  \[ PL = (STR_{OT} + STR_{Q} + STR_{RPP} + STR_{COOP} + STR_{IS} + STR_{FLX})/6 \]
- **CI** – customer intimacy:
  \[ CI = (STR_{PSAD} + STR_{ASAD})/2 \]

Furthermore, we verified the internal consistency of constructs with Cronbach's alpha, which are presented in the Appendix in Table A2 with other descriptive statistics for all three of the included explanatory (independent) variables: Business Attractiveness (BA), Product Leadership (PL), and Customer Intimacy (CI).

**ANALYSIS AND RESULTS**

We used multiple-regression (MR) models with interaction effects to test our hypothesis (Aiken and West 1991, Preacher, Curran, and Bauer 2006, Dawson 2014). More detailed observations were obtained with PROCESS (Hayes 2013), the add-on for SPSS. Model assumptions were verified with approaches proposed in Chen et al. 2003 (Regression Diagnostics). Tests of multicollinearity (for all combinations variance inflation factors (VIF) were below 1.5) enable the usage of a MR with interactions. Hypotheses were tested using two sets of regression models (one for effectiveness and one for efficiency).

Table 1 provides the statistical results of efficiency and effectiveness.

Our baseline model is Model 1. The results show that product leadership, customer intimacy, and business attractiveness have a positive impact on firm performance, whereby only the effect of business attractiveness is statistically significant in both tables, while product performance is significant only for efficiency.

To examine the impact of value propositions on the effect of business attractiveness on firm performance when a company operates in attractive or unattractive businesses (when volume and prices go up or down), a moderated multiple analysis is conducted. Hypothesis 1 predicts that product leadership...
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<td>Product Leadership (PL)</td>
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<td>-.153*</td>
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<tr>
<td>R2</td>
<td>.328</td>
<td>.164</td>
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<td>.196</td>
<td>.329</td>
<td>.215</td>
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<tr>
<td>Adj. R2</td>
<td>.306</td>
<td>.136</td>
<td>.333</td>
<td>.159</td>
<td>.298</td>
<td>.179</td>
<td>.318</td>
<td>.204</td>
<td>.327</td>
<td>.209</td>
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<td>se</td>
<td>0.80553</td>
<td>0.80626</td>
<td>0.78577</td>
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<td>0.81003</td>
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<td>0.77388</td>
<td>0.79326</td>
<td>0.77149</td>
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</tr>
<tr>
<td>p-value</td>
<td>.000</td>
<td>.001</td>
<td>.000</td>
<td>.002</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
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</tr>
</tbody>
</table>

*p<.10, **p<.05, ***p<.001

Note: Values b (p-value) represent regression coefficient and its corresponding p-value.
negatively moderates the relationship between business attractiveness and firm performance. As shown in Model 2 in Table 1 the interaction of product leadership with business attractiveness is significant for efficiency at 0.035 with a regression coefficient -0.175.

Figure 1: Interaction plot for the moderating effect of product leadership on the relationship between business attractiveness and (efficiency, effectiveness) firm performance

The interaction is slightly weaker for effectiveness, with the regression coefficient -0.153 at 0.066 significance. This suggests that: (1) product leadership impacts the business attractiveness-performance relationship; however, the impact is more significant for efficiency than for effectiveness; and (2) that the impact is negative, which means that when product leadership improves (PL grows) the slope (the effect) of presenting the impact of business attractiveness on performance diminishes.

Furthermore, we analyzed where the impact of product leadership on the business attractiveness-firm performance relationship is significant. We calculated two regression lines at the mean value of the variable customer intimacy, whereby the first regression line (dashed line in Figure 1) refers to the product leadership value, where the value is one standard deviation below the mean value (PL low) and the second (solid line in Figure 1) to the value where product leadership is one standard deviation above the mean value (PL high). We further tested if the simple slope (the impact of business attractiveness on efficiency and effectiveness) is zero for the three values of product leadership for both efficiency and effectiveness. The results showed a significant non-zero regression slope at low value of product leadership for both; at

Figure 2: Interaction plot for the moderating effect of customer intimacy on the relationship between product leadership and effectiveness

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1 In Model 2:
CI = mean = 5.3145,
PL_high = mean + 1 std. = 5.6600 + 0.84288 = 6.50288, EFI' = 5.819 – 0.035 BA, EFE' = 5.475 + 0.018 BA;
PL_low = mean – 1 std. = 5.6600 – 0.84288 = 4.81712, EFI' = 3.315 + 0.261 BA, EFE' = 3.694 + 0.276 BA.

2 In Model 4:
BA = mean = 5.688,
CI_ low = mean – 1 std. = 5.3145 – 1.47115 = 3.84335, EFE' = 5.867 – 0.128 PL,
CI_high = mean + 1 std. = 5.3145 + 1.47115 = 6.78565, EFE' = 2.978 + 0.428 PL.
mean value of the product leadership variable significance was only confirmed to effectiveness; and insignificant at a high value of product leadership. Based on this sample we can conclude that in companies that do not compete with product leadership (PL low), growing business attractiveness improves both efficiency and effectiveness as is presented by the dashed lines in Figure 1 (dashed line is statistically significant below 0.05). On the other hand, for companies that compete with product leadership (high PL), growing business attractiveness decreases the efficiency of business operations and causes a diminishing rate of increase in effectiveness (solid lines in Figure 1).

Hypothesis 2 predicts that customer intimacy positively moderates the product leadership–firm performance relationship, meaning that the positive impact of product leadership on performance increases with higher values of customer intimacy. The results lend full support to Hypothesis 2 for effectiveness (Table 1, Model 3 for effectiveness: regression coefficient 0.189 significant as 0.020), but not for efficiency (Table 1, Model 3 for efficiency). In the second step of Hypothesis 2’s analysis we at different values of customer intimacy observed how customer intimacy impacts the product leadership–firm performance. We again used the method of two regression lines, this time calculated at the mean value of business attractiveness. The lines are presented in Figure 2, where the first (dashed) line refers to the value of customer intimacy one standard deviation below the mean value (CI low) and the second (solid) to the value of customer intimacy one standard deviation above the mean value (CI high). Further analysis confirmed a statistically significant regression slope at high values of customer intimacy, and insignificant at low values of customer intimacy. Based on the analysis of low-high regression lines, we infer that: (1) when customer intimacy is low (one standard deviation below the average), product leadership negatively impact effectiveness (this relationship is presented by the dashed line in Figure 2 and is not significant); and (2) when customer intimacy is high (one standard deviation above the average), competing with product leadership (high PL) increasingly and positively impacts effectiveness (the solid line in Figure 2; this relationship is significant at 0.05).

Finally, we are interested in how the effect of business attractiveness on firm performance depends on the combination of different levels of product leadership and customer intimacy. Therefore, we analyzed the interactions between business attractiveness, product leadership, and customer intimacy. In the general model the three-way interaction effect is not statistically significant (see model M5 in Table 1). But more detailed observation at selected values of product leadership and customer intimacy showed that at a low value of product leadership the effect of business attractiveness on firm performance is statistically significant and is larger at larger values of customer intimacy (see Table 2 for efficiency and Table 3 for

Table 2: Conditional effect of business attractiveness on efficiency presented with a couple (b, p) at different values of product leadership and customer intimacy in Model M5 (three-way interaction)

<table>
<thead>
<tr>
<th>Customer Intimacy (CI)</th>
<th>CI low</th>
<th>CI mean</th>
<th>CI high</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Leadership (PL)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL low</td>
<td>b=0.201, p=0.055</td>
<td>b=0.276, p=0.002</td>
<td>b=0.351, p=0.009</td>
</tr>
<tr>
<td>PL mean</td>
<td>b=0.200, p=0.092</td>
<td>b=0.159, p=0.044</td>
<td>b=0.118, p=0.203</td>
</tr>
<tr>
<td>PL high</td>
<td>b=0.199, p=0.372</td>
<td>b=0.042, p=0.742</td>
<td>b=0.115, p=0.375</td>
</tr>
</tbody>
</table>

PL low = 4,817, PL mean = 5,660, PL high = 6,503, CI low = 3,843, CI mean = 5,315, CI high = 6,786
Couple (b, p) represents regression coefficient b (for business attractiveness) and corresponding p-value

Table 3: Conditional effect of business attractiveness on effectiveness presented with a couple (b, p) at different values of product leadership and customer intimacy in Model M5 (three-way interaction)

<table>
<thead>
<tr>
<th>Customer Intimacy (CI)</th>
<th>CI low</th>
<th>CI mean</th>
<th>CI high</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Leadership (PL)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL low</td>
<td>b=0.235, p=0.022</td>
<td>b=0.287, p=0.001</td>
<td>b=0.338, p=0.010</td>
</tr>
<tr>
<td>PL mean</td>
<td>b=0.215, p=0.063</td>
<td>b=0.170, p=0.027</td>
<td>b=0.125, p=0.165</td>
</tr>
<tr>
<td>PL high</td>
<td>b=0.194, p=0.369</td>
<td>b=0.054, p=0.668</td>
<td>b=0.087, p=0.487</td>
</tr>
</tbody>
</table>

Note: Values of PL low, PL mean, PL high, CI low, CI mean, and CI high are the same as in the Table 2.
effectiveness at PL low). It is also statistically significant at the mean value of product leadership, but not for all values for customer intimacy. A comparison of the conditional effect of business attractiveness on firm performance at a low value of product leadership (one standard deviation below mean) and at the mean value of product leadership shows the opposite impact of business attractiveness on firm performance at different values of customer intimacy: while at lower value of product leadership the effect of business attractiveness on firm performance is larger at higher values of customer intimacy (see at PL low and at CI mean and CI high), at the mean value of product leadership (PL mean) higher customer intimacy decreases the effect of business attractiveness on firm performance (see at PI mean and at CI low and CI mean in Table 2 and 3).

In general, this explorative approach to the building blocks of the strategic success of hidden champion companies illuminates several regularities: (1) Competing internationally via product leadership for SMEs is effective only when their current attractiveness of their business niches is low; and (2) pursuing product leadership can increase the business attractiveness of their niches, but only when product leadership is combined with sufficient customer intimacy.

Although exploratory data on this sample did not confirm a statistically significant three-way interaction between business attractiveness, product leadership, and customer intimacy, it shows that product leadership and customer intimacy can be mutually exclusive or mutually inclusive approaches to competing. More specifically, the exploratory data on this sample suggests that product leadership and customer intimacy can mutually strengthen the impact of business attractiveness on firm performance at a low value of product leadership and higher values of customer intimacy, which cannot be said (or can be even the opposite) for higher values of product leadership.

The question of whether the identified regularities of effective strategic behaviors may hold true only for Central and Eastern European hidden champions, or could be generalizable also for hidden champions regardless of national or wider institutional context, or even to any type of international niche leaders in terms of B2B segment, would be a welcome subject of subsequent research.

**DISCUSSION AND CONCLUSION**

Firm performance is the outcome of the attractiveness of a business and firm’s distinctive way of competing (Porter 1985). Customer intimacy or product leadership are two internally consistent, yet mutually exclusive approaches to competing (Treacy and Wiersema 1993). Combining product leadership and customer intimacy is an effective way of competing for global niche market leaders – hidden champions – (Simon 2009) who operate in the B2B segment and would like to raise their levels of business attractiveness, as showed by exploratory research in this paper.

More specifically, this paper addressed how the interplay of business attractiveness, product leadership and customer intimacy shapes firm performance. We studied moderating effects across these three constructs. Our research shows that product leadership negatively moderates the relationship between business attractiveness and firm performance. The negative moderation effect is more significant for efficiency than for effectiveness.

When a company is weak in product leadership, the size of its market has a much larger influence on its efficiency and effectiveness that when it has superior product leadership. The effect of the market size becomes even stronger when such weak product leadership firms rise in customer intimacy. On the other hand, the effect of market size is much smaller when paired with superior product leadership, while the effect of customer intimacy could not be statistically confirmed. Our results also show that product leadership positively impacts effectiveness (yet not efficiency) when a company has established substantial intimacy with customers. The greater the customer intimacy, the more positive the impact of product leadership on effectiveness. However, the positive effect of a customer intimacy-product leadership merger is present only when customer intimacy is well-developed (customer intimacy is above average). Well-developed customer intimacy is critical for the overall effectiveness of a hidden champion strategy. To be well-developed and thus effective, Žabkar and Arslanagić-Kalajdžić (2014) suggest a design integrating customer intimacy systematically into marketing processes in such a way that marketing people become actually accountable for how the customers perceive the value the company creates for them.

This study’s main contribution lies in shedding light on strategic approaches to competing that support an SME company becoming a market leader. The phenomena of hidden champions is studied by using the framework of the positioning school of strategy. By using this scholarly approach to the study of hidden champions, the paper contributes to the strategic management field in three ways. First, it uses the concept of value disciplines (Hagel and Singer 1999) – product leadership and customer intimacy - to capture the dominant way of competing and it applies
to explaining the dynamics between industry attractiveness and performance. Past research has used the concept of value propositions to explain the effective design of business models (Zott, Amit, and Massa 2011) and marketing strategies (Anderson, Narus, and Rossum 2006), but none have used value propositions in relation to the analysis of dominant approaches to competing and industry-performance relationship. By bringing the concept of value propositions (product leadership, customer intimacy) into an analysis of approaches to competing and the industry-performance relationship, we uncover the hidden dynamic between different approaches to competing.

Second, existing research on the dynamics of the relationship between approaches to competing (product leadership, customer intimacy) and market change (change in business attractiveness) has mainly used a grounded theory approach applied to in-depth case study analysis (Christensen 1997; Tripsas and Gavetti 2000; Gavetti and Rivkin 2007). Though such an approach is appropriate in new topic areas, it is less so for testing the relationships between existing theoretical concepts (Eisenhardt 1989; Yin 2009). In this paper we use a quantitative approach to study the dynamics of the relationship between approaches to competing (product leadership, customer intimacy) and market change (change in business attractiveness).

Finally, this paper studies in greater detail only one of Porter’s four generic strategies, namely the strategy of focused differentiation, whereby we disassembled this strategy into two further concepts of product leadership and customer intimacy. Specifically, we pay attention to the product leadership and customer intimacy of hidden champion firms (Simon 2009), which are well equipped for competing in a highly globalized, interconnected business world. They are a good reference point for learning how to compete on international markets with sustainable success.

The research results also imply several insights and advice for managerial practice. Companies can successfully establish a competitive edge on an international scale if they: (1) select an attractive business segment that allows for above-average profitability, or build their own attractive business segments through an effective combination of product leadership and customer intimacy; (2) carefully determine how much to invest in product leadership, bearing in mind that too much product leadership can demolish the attractiveness of business and consequently performance; and (3) carefully determine how to build customer intimacy in parallel with product leadership, whereby customer intimacy hedges the risk of making unnecessary product development investments.

Despite the revealed interactions in this study we have to be aware of some of its limitations. In this context we would like to expose the following two: First, the study sample bears some weaknesses because it is constrained to the hidden champion-type companies from Central and Eastern Europe and Turkey. We assume that the characteristics of successful strategies of hidden champions are of general importance, regardless of the company’s location. Nonetheless, we cannot assert that the general findings are equally valid for all countries in the study, nor that the findings are readily transferable to other regions and cultural contexts. Specifically, the CEE region has been faced with substantial institutional turmoil over the last two decades and these still exist today. Therefore, we believe that comparative studies of the phenomena of hidden champions and internationalization strategies of SMEs would be very welcome.

Next, the data gathering process also bears some substantial weaknesses. The data consist of self-reported perceptions of CEOs, which are important for subjective concepts like attractiveness, yet are far from sufficient. We relied on survey data for several reasons: (1) In many CEE countries public reporting does not exist, and consequently it was not possible to gather hard financial data or longitudinal data; (2) hidden champions by definition like to stay hidden and unrevealed and cannot be effectively diagnosed by other research approaches due to their hidden nature; (3), the reliability of data is further compromised because of language differences, misinterpretations, and the subjectivity errors of interviewees. As a result, due to these research deficiencies the overall findings may not be absolutely replicable within the same sample over the time. On a positive note, Brush and Vanderwerf (1992) and Dess and Robinson (1984) established proof that self-reported data can be considered valid and reliable.

Despite all of these drawbacks, we believe that the obtained results revealed important interplays between product leadership, customer intimacy, business attractiveness, and firm performance. We hope that they will contribute to further studies on testing the relevance of these interplays.

REFERENCES


Witt, A., Carr, C. 2013. A critical review of Hidden Champions and emerging research findings on their international strategies and orientations. In The Changing Geography
Becoming a hidden champion: From selective use of customer intimacy and product leadership to business attractiveness


### Table A1: Rotated factor matrix for firm performance measures, product leadership and customer intimacy

<table>
<thead>
<tr>
<th>Factor</th>
<th>1 Effectiveness</th>
<th>2 Efficiency</th>
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<tbody>
<tr>
<td>Competitive position (CP)</td>
<td>.732</td>
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</tr>
<tr>
<td>Growth (GRW)</td>
<td>.715</td>
<td></td>
</tr>
<tr>
<td>Profit (PRF)</td>
<td>.711</td>
<td></td>
</tr>
<tr>
<td>Ensuring survival in the market (SM)</td>
<td>.688</td>
<td></td>
</tr>
<tr>
<td>Overall satisfactory (OPS)</td>
<td>.602</td>
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<tr>
<td>Performance through recession (PRI)</td>
<td>.500</td>
<td></td>
</tr>
<tr>
<td>Cost savings (CS)</td>
<td></td>
<td>.704</td>
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<tr>
<td>Employee satisfaction (ES)</td>
<td></td>
<td>.618</td>
</tr>
<tr>
<td>Capacity utilization (CU)</td>
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<td>.612</td>
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<tr>
<td>Extraction Method: Principal Axis Factoring.</td>
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<tr>
<td>Rotation Method: Varimax with Kaiser Normalization.</td>
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<td></td>
</tr>
<tr>
<td>Rotation converged in 3 iterations.</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Factor</th>
<th>1 Product leadership</th>
<th>2 Customer intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-time delivery (STR_OT)</td>
<td>.778</td>
<td>.921</td>
</tr>
<tr>
<td>Product quality (STR_Q)</td>
<td>.641</td>
<td>.806</td>
</tr>
<tr>
<td>Ratio price to performance (STR_RPP)</td>
<td>.601</td>
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</tr>
<tr>
<td>Cooperation (STR_COOP)</td>
<td>.485</td>
<td>.442**</td>
</tr>
<tr>
<td>Information system (STR_IS)</td>
<td>.402</td>
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<tr>
<td>Flexibility (STR_FLX)</td>
<td>.505</td>
<td></td>
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<tr>
<td>After-sales service (STR_ASAD)</td>
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<td></td>
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<tr>
<td>Pre-sales service (STR_PSAD)</td>
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<tr>
<td>Rotation Method: Varimax with Kaiser Normalization.</td>
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<tr>
<td>Rotation converged in 3 iterations.</td>
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### Table A2: Descriptive statistics and bivariate linear correlations for explanatory variables

<table>
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<th></th>
<th>Mean</th>
<th>Median</th>
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<th>Maximum</th>
<th>Cronbach’s Alpha</th>
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<th>Product Leadership (PL)</th>
<th>Customer Intimacy (CI)</th>
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<td>5.688</td>
<td>6</td>
<td>1.2852</td>
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<td>7</td>
<td>1</td>
<td>.273**</td>
<td>.251*</td>
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<td>7</td>
<td>0.729</td>
<td>.273**</td>
<td>1</td>
<td>.442**</td>
</tr>
<tr>
<td>Customer Intimacy (CL)</td>
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<td>1.47115</td>
<td>1</td>
<td>7</td>
<td>0.865</td>
<td>.251*</td>
<td>.442**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).