Disentangling performance outcomes of a firm's innovativeness: A resource-advantage perspective*

*Dario Miočević, Anita Talaja, Nikša Alfirević***

Abstract

Inconsistent findings from the literature suggest that the relationship between innovativeness and performance is more complex than it might be presumed. By drawing on the resource-advantage theory, in this study we investigate: 1) the moderating effect of buyer power and competitive rivalry, and 2) the mediating role of customer- and competitor-based positional advantage on the relationship between innovativeness and sales-based and profit-based performance. The findings from the survey on 132 medium- and large-sized industrial firms in Croatia show that buyer power and competitive rivalry positively moderate the relationship between innovativeness and performance outcomes. Moreover, it was found that customer- and competitor-focused positional advantages mediate the link between innovativeness and performance outcomes. The findings of this study contribute to the literature and management practice by shedding new light on the nature of innovativeness in industrial firms.

Keywords: innovativeness, buyer power, competitive rivalry, positional advantage, sales growth, profitability
JEL Codes: L1, L22, O32

Introduction

During the last two decades, the academic interest in the concept of innovativeness has been growing due to its focus on some of the most important issues within the field of strategic management academia (Keupp/Palmié/Gassmann 2012) and practice (McKinsey Quarterly, 2019). Findings related to performance implications of a firm's innovativeness differ substantially across studies and contexts. Although the majority of studies confirm that innovativeness mostly has a positive effect on firm performance (Sher/Yang 2005; Lee/Hsieh 2010; Santos-Vijande/González-Mieres/López-Sánchez 2013; Saunila/Ukko/Rantanen 2014; Chang/Franke/Butler/Musgrove/Ellinger 2014), some researchers found that innovativeness is negatively associated with performance (e.g., Atuahene-Gima 1996; Hundley/Jacobson/Park 1996; Vermeulen/de Jong/O'Shaughnessy 2005), while others suggest that innovativeness and performance are not related

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** *Dario Miočević*, PhD, Associate Professor, University of Split, Faculty of Economics, Business and Tourism, Email: dmiocevi@efst.hr. Main research interests: marketing strategy, B2B marketing, international marketing
Anita Talaja, PhD, Associate Professor, University of Split, Faculty of Economics, Business and Tourism, Email: anita.talaja@efst.hr. Main research interests: strategic management, dynamic capabilities, innovation, change management
Nikša Alfirević, Phd, Full professor, University of Split, Faculty of Economics, Business and Tourism, Email: nalf@efst.hr. Main research interests: education management and leadership, non-profit and public sector.

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in a significant way (e.g., Atuahene-Gima/Evangelista 2000; Tatikonda/Montoya-Weiss 2001; Menguc/Auh 2006; Zhang/Ma/Wang 2012). Such contradicting findings imply that the relationship between innovativeness and performance might be more complex than previously thought, with a more extensive nomological network at play. Obviously, such a situation creates a serious gap, preventing academics to provide concrete guidance for practitioners when to invest in innovativeness. We believe these inconsistencies can be attributed to the following reasons.

First, we argue that one of the reasons for inconsistent results includes conceptualizing performance as a global latent construct and not choosing a specific performance indicator that is tightly connected with the investigated relationship. According to Rubera and Kirca (2012), one of the dominant explanations is that divergent results stem from the use of a variety of performance measures. However, these explanations are often offered post hoc and are not incorporated in the development of hypotheses or in the study design. In addition, the use of the aggregate measure of performance has serious drawbacks and has been criticized recently (Arbelo/Arbelo-Pérez/Pérez-Gómez 2020). Following Szymanski, Kroff and Troy's (2007), suggesting that market (sales) versus financial (profitability) measures and the innovativeness-performance relationships could differ in the respective measures, conceptualizing performance as a global latent construct might be misleading (Katsikeas/Morgan/Leonidou/Hult 2016). In addressing this issue, we relate innovativeness with two distinct performance indicators, namely sales growth as revenue-based performance and profitability as profit-based performance.

Second, inconsistent results related to innovativeness-performance relationship could be due to the omission of external contingencies that moderate this relationship, as well as important mediation mechanisms. Namely, previous studies may be underreporting the true nature of innovativeness-performance relationship, which is in line with arguments of Herhausen/Morgan/Brozovic/Volberda (2020) who differentiate between market and financial outcomes of innovativeness. Hence, we argue that this relationship is: 1) seriously affected by environmental conditions (Story/Boso/Cadogan 2015), as well as 2) better explained through the mediating role of competitive advantage (Guo/Wang/Hao/Saran 2018).

Extant literature offers limited insights to management teams on how to align innovativeness with other important aspects of the strategy process, namely: 1) competing strategic goals of the firm, reflected in performance outcomes (sales growth vs. profitability), 2) external market conditions, reflected in buyer power and competitive rivalry, and 3) distinct positional advantages (PAs) that the firm nurtures (customer-focused or competitor-focused PAs). Against this background, we draw on the resource-advantage (R-A) theory (Hunt/Morgan 1996;

Hunt 1997; Hunt/Arnett 2003) to offer a more detailed explanation of how a firm's innovativeness drives business success. In line with the R-A theory, we define innovativeness as the firm's crucial operant resource, which is the foundation for creating a PA and enhancing the firm's success, both in sales growth and in profitability. Consequently, our study provides the following contributions to the innovation management literature. First, we extend previous literature by exploring the conditional effects of two industry-level contingencies, namely buyer power (Peters 2000) and competitive rivalry (Jeng/Park 2014), which can steer the performance outcomes of a firm's innovativeness in different domains. We find that innovativeness is likely to boost sales growth in markets characterized by higher buyer power. In addition to this, our findings also reveal that innovativeness may be a relevant organizational asset for driving profits in the markets labelled with strong competition. Consequently, our findings enrich extant literature by showing different pathways, through which firms can achieve financial success by nurturing the innovativeness. More precisely, we demonstrate that buyer power and competitive rivalry are important external market contingencies that profoundly influence how innovativeness translates into different, and sometimes competing, performance outcomes (Hunt/Morgan 1996).

Second, academic literature does not clarify why and how some companies are better than others in utilizing their innovativeness in competitive markets to achieve superior performance (Song/Droge/Hanvanich/Calantone 2005; Ngo/O'Cass 2012). There is some, although insufficient evidence for providing specific guidance to top management teams on when and how to deploy innovativeness (Hernández-Espallardo/Delgado-Ballester 2009). It is well known that innovation can lead to a higher performance, but it is still not completely clear how this mechanism works. Therefore, by utilizing the R-A theory, we additionally contribute to a better understanding of how innovativeness drives higher sales growth and profitability through the mediating effects of competitor- and customer-focused PAs.

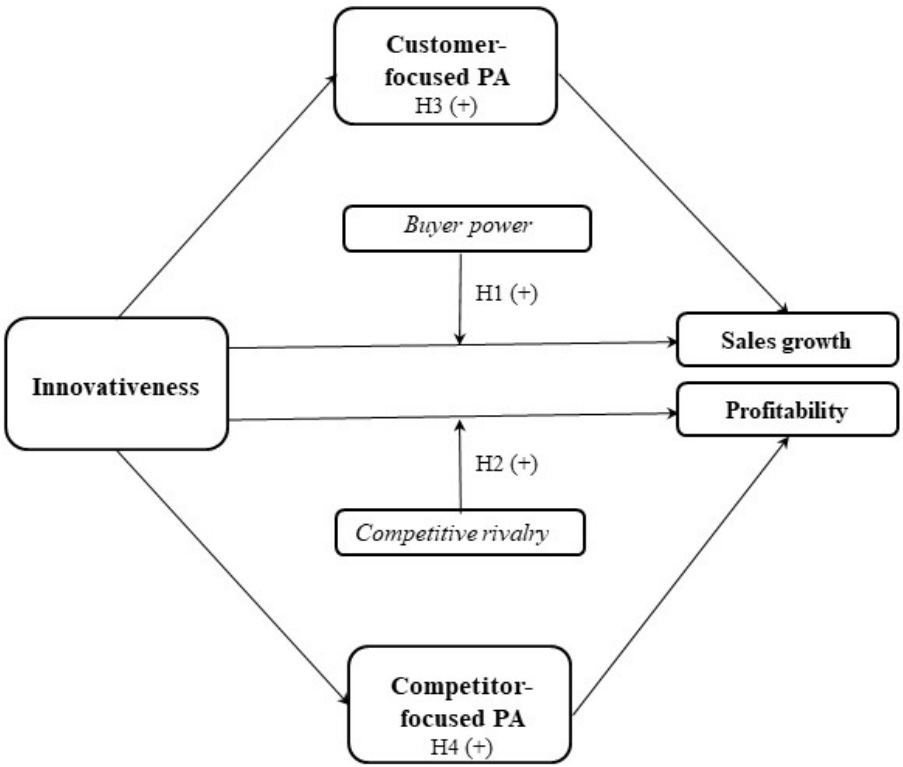
Third, the main body of research related to innovativeness outcomes has been conducted in developed economies, and one of the contributions of this paper arises from the fact that there is not much research on firm's innovativeness in post-transition market countries of Eastern Europe. In the following section, literature review concerning focal constructs of interest is presented. Then, the conceptual framework and hypotheses are developed and methodological considerations and study findings are described and discussed. Finally, a conclusion with theoretical and managerial implications, as well as study limitations and suggestions for future research are presented.

Theory and hypotheses

In order to understand the impact of a firm's innovativeness on performance, we draw on the R-A theory (Hunt 1997; Hunt/Arnett 2003), which sees a comparative advantage in resources as leading to competitive advantage and, ultimately, to superior financial performance (Hunt 1995; Hunt/Morgan 1996; Hunt/Madhavaram 2019). This process is significantly influenced by five environmental factors: the societal resources, societal institutions, competitors, consumers, and public policy decisions (Hunt/Morgan 1996). Under the umbrella of the R-A theory, two types of resources should be valorised: operand (physical, financial, and legal) and operant resources (human, relational, informational, and organizational). According to the R-A theory, operant resources are the fundamental source for the creation of a sustainable competitive advantage (Hunt 2004). Innovativeness plays the key role in the R-A theory as an operant resource. Innovativeness refers to the level of development and implementation of new ideas (Nasution/Mavondo 2008). Innovativeness explains the relationships between a firm's resources and capabilities on the one hand and the market on the other (Wang/Ahmed 2007). Its function is to acquire, mobilize and reshape knowledge and ideas into new products, processes and systems (Lawson/Samson 2001; Robertson/Casali/Jacobson 2012). Innovativeness consists of several dimensions, including new product and market development, innovative strategic orientation and innovative behaviour and processes (Miller/Friesen 1983; Capon/Farley/Lehmann/Hulbert 1992; Lawson/Samson 2001; Wang/Ahmed 2007; Robertson et al. 2012; Saunila et al. 2014).

Previous studies show that the ability to innovate is instrumental for the survival and success of a firm (Quinn 2000; Wang/Ahmed 2004), especially in a volatile environment (Cavusgil/Calantone/Zhao 2003). Prior research has mainly investigated innovativeness of specific products (e.g. Gielens/Steenkamp 2007) or different combinations of the dimensions of innovativeness (Capon et al. 1992), and confirmed that there is mostly a positive effect of innovativeness on the firm performance (e.g., Lee/Hsieh 2010; Santos-Vijande et al. 2013; Chang et al. 2014; Saunila 2017). Other studies have shown that a firm's innovativeness is an important factor for its evolution and survival (e.g. Deeds/DeCarolis/Coombs 2000; Verona/Ravasi 2003; Lazonick/Prencipe 2005). However, some studies refute the universal innovativeness-performance relationship by providing a negative or even non-significant relationship between innovativeness and performance (e.g., Vermeulen et al. 2005; Menguc/Auh 2006; Zhang et al. 2012). These mixed results could stem from the way performance is operationalized (Rubera/Kirca 2012) or the fact that the innovativeness-performance relationship is dependent upon contingencies from the external environment (Szymanski et al. 2007), and mediating variables that enable its translation into higher performance (Guo et al. 2018).

Figure 1: The conceptual model



Although the effects of innovativeness and the role of environmental dynamism are still under discussion (Ferreira/Coelho/Moutinho 2020), the authors agree on the contingent nature of innovativeness, emphasizing that innovativeness will probably be the most required prerequisite for the survival of firms in industries and environments labelled as volatile (Delmas 1999; Deeds et al. 2000; Wu 2010; Schilke 2014; Karna/Richter/Riesenkampff 2016). Studies show that when there is a higher pressure from the industrial environment, product innovation is effective in influencing performance, while in a less hostile environment, such influence is not found (Hernández-Espallardo/Delgado-Ballester 2009). In particular, firms operating in extremely volatile industries, with high pressures of competition and buyer power, must become highly adaptive and it is likely that innovation will have a higher impact on their performance outcomes vis-à-vis firms operating in less volatile industries. In this study, we focus on competitive rivalry and buyer power (Figure 1). These are the strongest determinants of environmental dynamism and market uncertainty (Jaworski/Kohli 2012), and the most important constituents of the industrial environment (Hunt/Morgan 1996).

Sustainable competitive advantage is the foundation for achieving long-term above-average performance (Porter 1985), or the direct antecedent of a firm's performance (Navarro/Losada/Ruzo/Díez 2010). A firm has competitive advantage, when it can produce greater economic value than its main competitor. Economic value, in that context, refers to the difference between the value that the buyers perceive and the cost of a firm (Peteraf /Barney 2003).

However, one of the most controversial aspects within the scholarly field of strategic management is measuring performance as a reflection of competitive advantage (Arbelo et al. 2020). The majority of research (76 %) related to resource heterogeneity approach analyses the relationship between a specific resource or capability and performance, and not competitive advantage. However, this kind of approach is not accurate (Newbert 2007). By treating these constructs interchangeably, researchers assume that when a firm has achieved above-average returns it means, by default, that it has achieved a competitive advantage. This assumption is methodologically incorrect, since competitive advantage leads to increased performance, but not the other way around (Powell, 2001). According to Durand (2002), competitive advantage is a sufficient, but not-necessary condition for achieving superior performance. On the other hand, Spanos and Lioukas (2001) argue that a firm's performance is dependent on competitive advantage as a necessary condition. Therefore, in the proposed model (Figure 1), we additionally test for the mediating role of customer- and competitor-focused PAs in the relationship between innovativeness and performance outcomes.

Moderating influence of buyer power on innovativeness-sales growth relationship

According to Porter (1985), satisfying buyer needs is the key to business success, because buyers with high bargaining power are able to squeeze profitability out of an industry (Porter 1979; Pecotich/Hattie/Low 1999). According to Peters (2000), buyer market power has an impact on innovative activities of suppliers. In order to achieve above-average performance in a rapidly changing environment, where buyers' preferences often change and they are constantly seeking new products, innovative activities are particularly important (Hult/Hurley/Knight 2004). The power of buyers has an impact on prices that firms can charge, but also on cost and investment, since powerful buyers demand a costly service (Porter 1985). To this end, studies have shown that firms that are responsive to customer needs witness higher sales growth (Lengler/Sousa/Marques 2013). Buyer power usually lowers the prices in an industry or elevates the costs, in order to meet buyers' demands. If there is a strong buyers' bargaining power in an industry, in order to satisfy their needs, firms have to differentiate and innovation is a means of doing so (Porter 1985).

In industries where buyer power is low, it is not necessary, or even desirable, that a firm heavily invests in innovativeness. Buyers with lower bargaining power do not require additional sources of value, so these kinds of efforts will not lead to higher sales growth, but only to excessive costs for the firm. In a market where buyer power is high, a firm has to deliver superior value to demanding customers and meet their changing preferences through continuous innovation. In this situation, investment in innovativeness can enable a firm to create offerings that could meet shifting buyers' needs and attract more buyers in order to achieve sales growth. Therefore, we believe that innovativeness will be more beneficial for firm's sales growth in industries characterized by higher buyer power. Hence, we hypothesize:

Hypothesis 1: The buyer power positively moderates the impact of innovativeness on sales growth.

Moderating influence of competitive rivalry on innovativeness-profitability relationship

Firms operating in industries with intense competitive rivalry face the pressure to innovate in order to survive (Jeng/Pak 2014). The intensity of competitive rivalry refers to the vigorousness and frequency, in which firms in the industry engage in competitive actions and reactions in their search for competitive advantage (Pecotich et al. 1999). A large number of competing firms, similar size of competing firms, slow industry growth and lack of product differentiation are some of the factors that can increase competitive rivalry (Barney 2012). Competitive rivalry is often used as a moderator in relationships, when analysing a firm's performance (Ramaswamy 2001; Cadogan/Kuivalainen/Sundqvist 2003), but this kind of research is relatively scarce. The intensity of rivalry has an impact on prices and costs of competing and the competition in an industry tends to lower the level of a firm's profitability (Porter 1985). On the other hand, studies show that innovativeness is less important for firms, operating in an industry, where competitive pressure is not very high (Wright/Kroll/Tu/Helms 2005; Freel 2006; Hernandez-Espallardo/Delgrado-Ballester 2009). In such industries, greater investments in innovation might be wasteful and potentially lead to lower profitability (Rosenbusch/Brinckmann/Bausch 2011). The quest for a sustainable superior profitability motivates firms to neutralize competitors, and one way to do so is through innovation (Hunt 1999). By responding to competitors' moves with innovativeness, firms are able to outperform other competitors with novel offerings, generate higher sales and consequently witness higher return on investment in innovative capacities (Lengler et al. 2013; Sørensen, 2009). Hence, we believe that innovativeness is more relevant for firm's profitability in industries characterized by intense competitive rivalry. To this end, we propose the hypothesis:

Hypothesis 2: The competitive rivalry positively moderates the impact of innovativeness on profitability.

Mediating role of customer and competitor-focused positional advantages

To sustain its advantage in a competitive marketplace, firms need to invest in innovativeness (Jeng/Pak 2014), since competitive advantage and, in effect, performance outcomes are influenced by the firm's strategic assets (Dierickx and Cool 1989). However, the mediation of competitive advantage could help to better understand the relationship between innovativeness and performance. The rationale for deciding which investments to undertake should be based on a better understanding of customers and competitors (Guo et al. 2018), since investments in innovativeness will lead to competitive advantage and higher sales, only if customers perceive the added value that a product has gained through innovation (Friar 1995; Nasution/Mavondo 2008). In a similar fashion, if a firm's innovation outputs are more advantageous, when compared to the competitors' one (better cost-benefit ratio), then the innovativeness will increase the firm's profitability.

Competitive advantage refers to the positional superiority in the market segment in which it operates, and can be disaggregated into competitive strategy and positional advantage (Martin/Javalgi/Cavusgil 2017). This superiority is based upon "delivering superior customer value and/or achieving lower costs in comparison with competitors" (Hooley/Grenley 2005; Martin et al. 2017). Positional advantage is the antecedent of performance (Hult/Ketchen 2001; Martin et al. 2017) and studies have documented that it mediates resource-performance relationship (Baia/Ferreira/Rodrigues 2019). In this case, we posit that the link between innovativeness and sales growth will be mediated by customer-focused PA, which is reflected in high levels of customer satisfaction. If customers' expectations are met through innovation, they will exhibit satisfaction and, thus, buy in higher quantity and more frequently, enhancing sales growth. On the other hand, competitor-focused PA, achieved through a more efficient production or a service delivery system, will mediate the relationship between innovativeness and profitability. More efficient production and delivery systems tend to decrease overall costs for the firm and, thus, increase the profitability of its innovative business model. Based on these arguments, we propose two mediating hypotheses:

Hypothesis 3: Customer-focused PA mediates the relationship between innovativeness and sales growth.

Hypothesis 4: Competitor-focused PA mediates the relationship between innovativeness and profitability.

Method

Primary data was collected from medium and large-sized Croatian industrial firms. The sampling frame was drawn from the *Croatian Chamber of the Economy* and resulted in a population of 784 firms. In order to increase the response rate, online and mail surveys were sent to the addresses of chief executive officers (CEOs), and after two weeks a follow-up e-mail was sent. A total of 132 usable questionnaires were collected resulting in a response rate of 16.84 %, which is satisfactory for this type of research design. A non-significant difference in responses and demographic profile of early and late respondents suggests that non-response bias is not an issue that could undermine this study.

Firm innovativeness was operationalized by Capon et al. (1992), Miller and Friesen (1983), and Wang and Ahmed (2004) and included the following items: developing new products or services, developing new methods of production, market innovativeness, and strategic innovative orientation. The respondents were asked to assess their strengths, relative to major competitors on a 5-point Likert scale (1-much worse than most important competitors; 5- much better than most important competitors).

Competitive rivalry was adapted from Miller (1987), Pecotich et al. (1999), and Newbert (2008). The respondents were asked to state to which extent they agreed or disagreed with the following statements: (1) in our industry, competitive moves from one firm have noticeable effects on other competing firms; (2) in our industry, firms have resources for a vigorous and sustained competitive action; (3) in our industry, investing in R&D is a priority. Operationalization of buyer power was based on Homburg, Krohmer and Workman (1999), DeSarbo/Di Benedetto/Song/Sinha (2005), and Pecotich et al. (1999). The respondents were asked to state to which extent they agreed or disagreed with the following statements: (1) in our industry, customers' preferences change substantially over time; (2) it is very difficult to predict changes in customers' preferences; (3) it is very difficult to respond to changes in customers' preferences. Previous studies in marketing strategy used the same logic in defining buyer power (Slater/Narver 1994). Both competitive rivalry and buyer power were measured with a 5-point Likert scale (1- totally disagree; 5 – totally agree).

Since studies show that perceptual measures of performance fairly correlate with objective measures (Powell 2001), managers' perceptions of sales growth and profitability were used. Both profitability and sales growth were measured on a 5-point Likert scale (1- much worse than the most important competitors, 5 – much better than the most important competitors).

Customer-focused and competitor-focused PAs were adapted from Iršič (2017). Customer-focused PA was measured by asking the respondents to indicate how successful their firm is, compared to the most important competitor, in securing

customer's satisfaction with their products/services. In a similar fashion, to measure the competitor-focused PA the respondents were asked to indicate their firm's success in achieving sustainable advantage over competitors through lower costs of production and/or service delivery. Both items were measured on a 5-point Likert scale (1- much worse than the most important competitors, 5 – much better than the most important competitors). In addition, we included two control variables that might have an influence on sales growth and profitability, namely: entry barriers to the industry, where the firm operates and the level of product diversification.

The usage of single-item measures for sales growth, profitability, customer-focused PA and competitor-focused PA is consistent with findings on measurement strategy in marketing research (Fuchs/Diamantopoulos 2009; Bergkvist 2015). According to these studies, single-item measures, which cover concrete information are as valid and as reliable as multi-item measures.

Although it has been suggested that common method variance (CMV) is more likely to emerge in simplistic models than in models which contain interaction effects (Chang/Van Witteloostuijn/Eden 2010), we nevertheless decided to employ ex-ante and ex-post procedures. During the survey design, the order of questions was mixed, in order to avoid respondents making mental connections between the constructs in the model. After the survey, the Harman's one-factor test was conducted (Podsakoff/MacKenzie/Lee/Podsakoff 2003). All construct items were entered into a single-factor confirmatory factor analysis (CFA). Then, the fit indices were examined to assess the extent to which a single latent factor might present an alternative explanation to the derived factors. The results indicate that an alternative model has the unacceptable model fit ($\chi 2 = 136.81$ (df = 35), root mean square error of approximation (RMSEA) = 0.15, normed fit index (NFI) = 0.71, non-normed fit index (NNFI) = 0.70, comparative fit index (CFI) = 0.77). Next, the correlation between objective and survey-reported performance measures was calculated. The results indicate statistically significant correlations between subjective and survey-reported measures ($p<0.05$) and marginally significant correlations between the profitability-based measures ($p < 0.10$). Finally, we believe that CMV does not present a threat to our study.

Findings

In Table 1, the correlations among variables are shown. The measurement model is analysed using the CFA in AMOS v23. After scale purification, final measurement model with three latent constructs and 10 indicators showed a good fit to our data (χ^2=46.50 (df=32), RMSEA=0.05, NFI=0.90, NNFI=0.95, CFI=0.99). To ensure indicators validity, the loadings of all reflective indicators were examined. All indicators had factor loadings higher than 0.7 (Table 2), which leads to

the conclusion that a large part of indicator's variance is explained by the underlying latent variable.

Table 1: Construct correlation matrix

	M	SD	1	2	3	4	5	6	7	8
Entry barriers	3.20	0.97	1							
Diversification	2.16	0.81	.03	1						
Innovativeness	3.28	0.80	.27**	-.02	1					
Competitive rivalry	3.72	0.76	.08	-.06	-.04	1				
Buyer power	2.82	0.69	.11	.06	.05	.04	1			
Customer-focused PA	3.90	0.67	.21*	.09	.40**	.03	-.02	1		
Competitor-focused PA	3.54	0.85	.02	.19*	.51**	-.01	-.07	.35**	1	
Sales growth	3.25	1.01	-.01	.06	.38**	-.26**	.11	.30**	.33**	1
Profitability	3.09	1.09	.04	.13	.30**	-.30**	-.01	.23**	.40**	.66**

**(p<0.01), * (p<0.05)
Diver-inno -.02

Table 2: Construct measurement properties (CFA)

Construct	Loading	AVE	CR	Cronbach α
Competitive rivalry				
RIV1	0.77	0.63	0.83	0.72
RIV2	0.85			
RIV3	0.76			
Buyer power				
BUY1	0.71	0.59	0.81	0.70
BUY2	0.87			
BUY3	0.72			
Innovativeness				
DC_IN1	0.86	0.76	0.93	0.81
DC_IN2	0.84			
DC_IN3	0.89			
DC_IN4	0.90			

Construct reliability is analysed using the composite reliability (CR) and Cronbach α measures, while convergent validity is analysed using the average variance extracted (AVE). Table 2 indicates that all constructs have the CR and Cronbach α values above the critical threshold of 0.7 and AVE above 0.5. These findings confirm the existence of construct reliability and convergent validity. Narrow factor loadings range (RIV 0.76 – 0.87) and high lowest loading (0.72) also confirm the existence of convergent validity. Since the square root of AVE

of each construct is higher than the construct's correlation with any other latent construct, discriminant validity is confirmed.

Table 3: Regression analyses results

Determinants	DV: Sales growth		DV: Profitability	
	B (S.E.)	(LLCI, ULCI)	B (S.E.)	(LLCI, ULCI)
Controls				
Entry barriers	-0.12 (0.08)	(-0.29, 0.04)	0.07 (0.09)	(-0.09, 0.24)
Diversification	0.02 (0.19)	(-0.36, 0.41)	0.07 (0.21)	(0.01, 0.02)
Direct effects				
Innovativeness	0.40** (0.10)	(0.19, 0.62)	0.15 (0.11)	(-0.07, 0.38)
Buyer power	0.12 (0.11)	(-0.10, 0.35)	0.02 (0.12)	(-0.21, 0.26)
Competitive rivalry	-0.32** (0.10)	(-0.54, -0.11)	-0.26* (0.12)	(-0.48, -0.04)
Customer-focused PA	0.28* (0.13)	(0.02, 0.53)	-	-
Competitor-focused PA	-	-	0.52** (0.11)	(0.31, 0.74)
Interaction effects				
Innovativeness x Buyer power	0.34* (0.15)	(0.03, 0.64)	0.28 (0.15)	(-0.01, 0.61)
Innovativeness x Competitive rivalry	0.10 (0.11)	(-0.12, 0.33)	0.28* (0.11)	(0.05, 0.52)
R^2	0.30		0.34	

Notes: PROCESS Model 5 (95 % confidence intervals; 5,000 bootstrap samples); DV = dependent variable; B = unstandardized coefficient; S.E. = standard error; LLCI = lower-level confidence interval, ULCI = upper-level confidence interval; * – p<0.05, ** – p<0.01

Since our model accounts for both moderating and mediating effects, we decided to use PROCESS macro model 5 with heteroscedasticity-consistent standard error estimators (HC3) (Hayes, 2017). Prior to the analysis, all the predictor variables were mean-centred. Our model consists of control variables, main effects, linear interaction effects, and the mediating effects from customer-focused PA and competitor-focused PA. Additionally, to make the results more robust, alternative moderation pathways, i.e. innovation-sales growth link, under the

moderation of competitive rivalry and innovation-profitability link, under the moderation of buyer power, were included as additional controls.

The results from Table 3 show that H1 and H2 are confirmed. According to H1, buyer power positively moderates the influence of innovativeness on sales growth, which is supported by the results of hierarchical regression ($\beta = 0.34$, $p<0.05$). On the other hand, competitive rivalry positively moderates the influence of innovativeness on profitability ($\beta = 0.28$, $p<0.05$), which is in accordance with H2. To inspect the regions of significance for the interaction effects, we have used the Johnson-Neyman technique (Hayes, 2017). The results show that H1 moderation is significant, when buyer power takes values between -0.24 and 1.84, while the H2 moderation of competitive rivalry is significant in the region between 0.48 and 1.28. To illustrate these results, the effects are plotted in Figure 2 and Figure 3.

Figure 2: The relationship between innovativeness, sales growth and buyer power

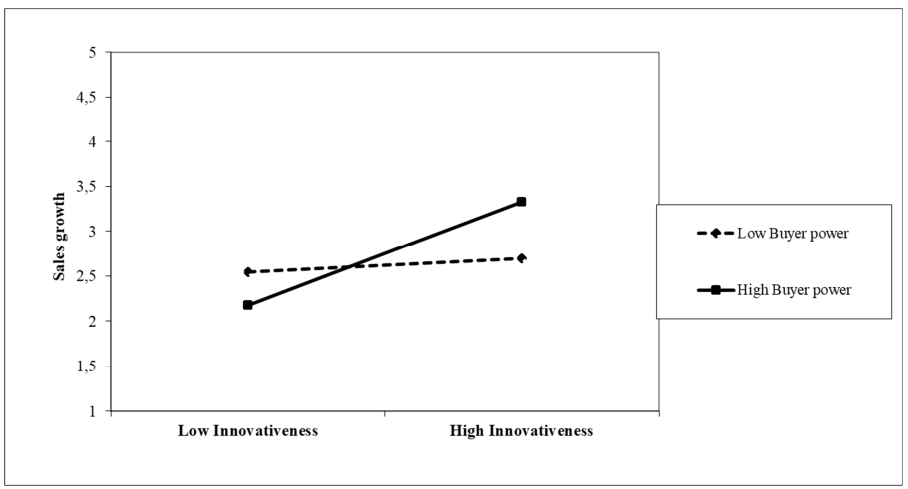
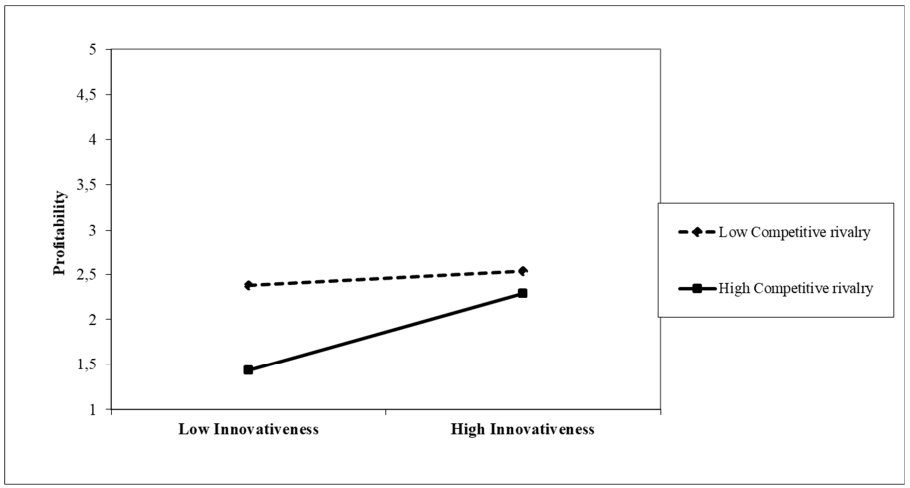


Figure 3: The relationship between innovativeness, profitability and competitive rivalry



Next, in order to determine the mediating role of customer-focused PA (H3) and competitor-focused PA (H4), path coefficients from independent variables to mediators were examined. The impact of innovativeness on customer-focused PA ($\beta = 0.31$, $p<0.01$) and competitor-focused PA is positive and significant ($\beta = 0.47$, $p<0.01$). Next, we inspected the indirect effects of innovativeness on sales growth through customer-focused PA ($\beta = 0.09$, LLCI = 0.06; ULCI = 0.20). Since the LLCI and ULCI interval falls outside the zero value, we conclude that mediation is significant. A similar occurrence is evidenced, when competitor-focused PA is included as a mediator. Indirect effect of innovativeness on profitability through competitor-focused PA is also significant ($\beta = 0.25$, LLCI = 0.12; ULCI = 0.42). After the inclusion of the mediator, the main effect (innovativeness-profitability) becomes insignificant, implying the presence of full mediation in this case. Such a result gives us confidence to accept both H3 and H4.

Discussion

Figure 2 shows that sales growth of less innovative firms operating in an industry with low buyer power is slightly higher than sales growth of their counterparts, operating in an industry with high buyer power. However, in the context of highly innovative firms, the situation reverses. The plot shows that when buyer power is low, emphasizing innovativeness will lower the sales growth, while in the context of high buyer power, innovativeness significantly enhances sales growth. The plot in Figure 3 reveals that firms, which build their business model around innovativeness should accentuate this in highly competitive industries. In the case of high competitive rivalry, highly innovative firms are able to harness

higher profits than their counterparts, which do not accentuate innovativeness. Evidently, firms from industries with low competitive rivalry tend to outperform their counterparts from industries with high levels of competitive rivalry in terms of profitability. In terms of mediating effects, it can be documented that competitor-focused PA shows a full mediation, suggesting that it is the necessary missing link in the edge over competitors when innovating. On the other hand, a partial mediation of customer-focused PA suggests innovativeness can still secure higher sales growth solely, but evidently this effect becomes stronger through the customer-focused PA.

Conclusion

Theoretical and managerial implications

So far, the studies have shown that the relationship between innovativeness and various performance outcomes varies by the type of the performance (Rubera/Kirca, 2012) and is contingent upon environmental conditions (e.g., Boso/Story/Cadogan/Micevski/Kadić-Maglajlić 2013; Jeng/Park 2014). We extend this view by arguing that the relationship between innovativeness and sales growth is moderated by buyer power, while the relationship between innovativeness and profitability is moderated by competitive rivalry. Unlike previous studies that investigate the direct relationship between innovativeness and general performance, we provide evidence for the contingent nature of innovativeness-performance relationship with respect to different performance outcomes. We show that positive effects of innovativeness on sales growth are stronger, when buyers are more powerful. Powerful buyers tend to change their needs rapidly by always looking for new sources of value that can be secured through innovative business models. In addition, our findings confirm that firms that have strong innovation potential experience immense benefits in profitability in highly competitive markets. Highly competitive markets can become a very risky venue for profitable venturing, but this can be overcome by the process of creative destruction (Hou/Robinson 2006) that enables firms to generate sound returns more quickly (Jeng/Park 2014). However, as Figure 3 shows, firms operating in less competitive markets are better off, which is not surprising, since innovativeness is a very costly endeavour and benefits are not always guaranteed. Our results extend the R-A theory by offering a more detailed explanation of how market-level contingencies can steer innovative firm's financial success. Our study contributes to extant literature (Jeng/Park 2014; Peters, 2000) and fills an important gap by showing alternative pathways of how innovative firms can achieve financial success by aligning their innovative business model with external market conditions and performance goals at hand.

The R-A theory suggests that PA is a mechanism that can better explain performance outcomes when deploying operant resources (Hunt/Morgan 1996; Hsieh/

Hsieh 2015; Guo et al. 2018). On top of these arguments, our mediation analyses show that innovativeness potential in securing higher sales growth depends on the firm's ability to create a customer-focused PA. In such a case, the firm deploys various operational marketing initiatives that secure that the outcomes of innovativeness are aligned with target customers' expectations. In the same manner, the firms that set profitability as the main goal of their innovative business model should strive to nurture the PA that would secure them an edge over their competitors. As our findings show, competitor-focused PA is inevitable in securing that the outcomes of a firm's innovativeness deliver on profits through more efficient ways of production and service delivery. Hence, our study adds new insights to innovativeness literature (Hult et al. 2004; Keupp et al. 2014; Szymanski et al. 2007) through the R-A theory, by showing that a firm's innovativeness should be considered an important operant resource that enhances performance outcomes, through the creation of a firm's customer- and competitor-focused PAs (Hunt/Morgan 1996).

By focusing on survey insights from Croatian industrial firms, our study also contributes to a contextual understanding of innovative behaviour of firms from the East European post-transition countries, where research is still limited and scarce (e.g. Rangus/Drnovsek/Di Minin/Spithoven 2017; Bortoluzzi/Kadic-Maglajlic/Arslanagic-Kalajdzic/Balboni 2018; Miocevic/Morgan 2018).

Our findings have direct implications for managers on how they should decide on their investments in innovativeness by taking into account the volatility in their respective industries and, more specifically, the intensity of buyer power and competitive rivalry. When buyers are powerful and highly demanding, a firm's decision to differentiate via innovativeness leads to higher sales growth by helping the firm in satisfying buyers' emergent needs. Similarly, when there is high competitive rivalry, innovativeness can help a firm in achieving competitive edge through differentiation and thus achieve higher levels of profitability. Our findings also suggest that firms that build their business model on innovativeness should focus their attention on developing the PAs. In case of securing higher sales growth, firms should deploy marketing initiatives, through which they will secure higher customer satisfaction. Firms, striving to achieve higher profitability, should inevitably use the market intelligence tools, such as benchmarking, to monitor competitors' business models, with a goal of creating more cost-efficient production and/or service delivery systems.

Limitations and further research

There are some limitations of this study that could serve as directions for further research. For example, our research context is limited to industrial firms. According to Lawson and Samson (2001), the core elements and processes of a successful innovation are the same, regardless of the industry in which a firm

operates. According to Chang et al. (2014), the impact of innovation on a firm's performance might be stronger for service providers than for manufacturers. In addition, this study is based on a sample of Croatian large and medium-sized firms; therefore, the findings should be interpreted with caution. In our study, we relied on general conceptualization of innovativeness and future studies are encouraged to reveal potential differences that exploratory and exploitative innovation (Atuahene-Gima, 2005) and incremental and radical innovation (Boso/Story/Cadogan/Annan/Kadić-Maglajlić/Micevski 2016) might have on performance outcomes. It can be presumed that an exploratory and radical approach to innovation activities might provide more disruption and also carry more risks, in terms of securing higher returns. The use of cross-sectional data is also one of the limitations of our study. The outcomes of firm innovativeness have a temporal dimension and evolution, so a longitudinal study could provide a more precise insight into the relationship between the investigated variables. Next, innovativeness is an important determinant of a firm's performance, with regard to the environment in which the firm operates, so additional research is encouraged to test the impact of other knowledge-based assets, e.g., absorptive capacity and adaptive capability to the firm's performance, in situations with different levels of buyer power and competitive rivalry. Finally, the importance of innovativeness, related to other environmental forces should be examined. One of the potential directions for further research could include the analyses of specific aspects of innovativeness with relation to possible disruptions, coming from substitutes within the industry, or firm's embeddedness in the wider innovation ecosystem.

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