

Market Orientation and Degree of Novelty

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This study aims to examine the relationship between a responsive and a proactive market orientation and the degree of novelty. Data obtained via an Internet survey were analysed using structural equation modelling. An analysis of 325 Slovenian firms reveals that only a proactive market orientation is positively related to the degree of novelty. While there is no evidence of statistically significant differences in the examined relationships given the firm size and environmental characteristics, separate analyses in each group indicate that a proactive market orientation may be more important for small firms and firms operating amidst a higher level of technological turbulence. This study suggests that a distinction between a responsive and a proactive market orientation is important for a better understanding of the effect of a market orientation on the degree of novelty.

Key Words: responsive and proactive market orientation, incremental and radical innovation

JEL Classification: M30, M31

Introduction

Market orientation is one of the core concepts of marketing thought which stresses the importance of a firm's focus on customer needs (Kotler 2003) and it has been the subject of numerous empirical studies since the 1990s. Most of these empirical studies have examined the effects of a market orientation on business performance (Cano, Carrillat and Jaramillo 2004; Kirca, Jayachandran and Bearden 2005; Ellis 2006), whereas its effects on innovation have received substantially less research attention (Han, Kim and Siravastava 1998; Lukas and Ferrell 2000; Grinstein 2008).

Despite the acknowledged importance of innovation for business performance (e. g. Hult and Ketchen 2001; Deshpande and Farley 2004; Fagerberg 2005; Antončič et al. 2007), innovation has only attracted greater attention in market orientation research during the past decade. A meta-analysis of 114 empirical studies revealed that among the consequences of a market orientation, 60% of the effects relate to organisational performance (i. e. overall business performance, profit, sales, market share),

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whereas only 17% relate to innovation consequences (Kirca, Jayachandran and Bearden 2005). Our understanding of the relationship between a market orientation and innovation is limited (Lukas and Ferrell 2000; Grinstein 2008).

This paper addresses the effect of a market orientation on the degree of novelty. Past research indicates that the degree of novelty is positively correlated to new product performance (e. g. Gatignon and Xuereb 1997; Song and Montoya-Weiss 1998) and business performance (e. g. Vazquez, Santos and Alvarez 2001; Sandvik and Sandvik 2003; Sorescu and Spanjol 2008). Yet, some authors believe that a market orientation only facilitates incremental innovation (Baker and Sinkula 2007). Empirical findings on this topic are discordant and warrant further examination.

The recent market orientation literature stresses the importance of distinguishing between two complementary forms of market orientation, i. e. responsive and proactive. To date, only a few empirical studies have adopted both forms of market orientation (Narver, Slater and MacLachlan 2004; Atuahene-Gima, Slater and Olson 2005; Tsai, Chou and Kuo 2008; Milferner 2009; Voola and O’Cass 2010). None of these studies has explicitly examined the relationship between the two market orientations and the degree of novelty.

The purpose of this study is to fill this gap in the literature and to offer a new insight into the relationship between a market orientation and the degree of novelty by considering both market orientation forms. Specifically, the main objective of this research was to empirically examine the relationship between a responsive and a proactive market orientation and the degree of novelty among Slovenian firms. In contrast to previous empirical studies which have focused on product innovation, this study aims to embrace other types of innovations as well (i. e. process, marketing and organisational innovation). In addition, comparisons will be made in terms of firm size and technological and market turbulence in the business environment.

The paper first provides a literature review of present knowledge about the relationship between a market orientation and the degree of novelty along with the distinction between a responsive and a proactive market orientation. Next, the research methodology and empirical findings of an Internet survey of a sample of 325 Slovenian firms are provided. The paper concludes with a discussion of the empirical findings and practical implications of the study, including the limitations of our study and suggestions for future research.

Literature Review

A market orientation can be viewed as a form of innovative behaviour because it involves doing something new or different in response to market conditions (Jaworski and Kohli 1993). A market-oriented company constantly strives to create and deliver a superior value for its target markets (Narver, Slater and Tietje 1998; Kotler 2003). In other words, a firm should be innovative in order to be market-oriented. According to the literature, optimal new product development programmes require a balance between incremental and radical innovation (Baker and Sinkula 2007). In the existing literature, almost all definitions and measures of radical and incremental innovations are limited to new products and changes in technology (e. g. Gatignon and Xuereb 1997; Chandy and Tellis 1998, 2000; Sivadas and Dwyer 2000). Chandy and Tellis (1998) believe that radical innovations involve fundamental changes in technology for the firm and provide substantially greater customer benefits, relative to existing products, whereas incremental innovations are product improvements and line extensions which involve relatively minor changes in technology and provide relatively few customer benefits. Incremental innovation is the most common form of innovation (e. g. Davila, Epstein and Shelton 2006; Baker and Sinkula 2007). While some authors claim that the cumulative impact of incremental innovations is just as great as the impact of a radical innovation or even greater (Fagerberg 2005), empirical studies suggest that radical innovations are more directly and positively related to new product success (e. g. Gatignon and Xuereb 1997; Song and Montoya-Weiss 1998; Henard and Szymanski 2001; Baker and Sinkula 2007) and to business performance (Vazquez, Santos and Alvarez 2001; Sandvik and Sandvik 2003; Sorescu and Spanjol 2008). Therefore, in general radical innovations have greater value for firms than incremental innovations (Baker and Sinkula 2007).

The question is whether a market orientation facilitates radical innovations. Some believe that a strong market orientation causes firms to overemphasise customer-led incremental innovation (Baker and Sinkula 2007). For Hamel and Prahalad (1991), simply being customer-led is not enough for the development of truly innovative products and leads to the 'tyranny of the served market.' Firms that simply ask customers what they want end up as perpetual followers. In contrast, market leaders know what customers want before customers know it themselves. Similarly, Bower and Christensen (1995) claim that leading firms often

fail to hold their leading positions in their industries when technologies or markets change, because they stay close to their customers. Focusing on current customers can therefore significantly reduce the innovative capacity of the firm (Christensen and Bower 1996). For Slater and Narver (1995), market orientation without an entrepreneurial drive might focus the firm's efforts too narrowly and, at best, lead to adaptive learning, which is necessary for continuous improvements and incremental innovations, but insufficient for radical innovations (Slater and Narver 1999). Similarly, Baker and Sinkula (1999, 2002) suggest that a market orientation in the absence of a strong learning orientation leads to a higher degree of imitation of new products. Only a combination of a strong market orientation and learning orientation leads to generative learning and consequently to radical innovations. In contrast, Santos-Vijande et al. (2005) counter this argument and suggest that a market-oriented firm is capable of both types of organisational learning. For Berthon, Hulbert and Pitt (2004) highly market-oriented firms without a strong innovation orientation are only followers: these firms rely heavily on market research when developing new products and generally 'give customers what they want.' To summarise, a prevalent view in theoretical discussions is that a market orientation alone is insufficient for the development of radical innovations.

Empirical findings on the relationship between market orientation and degree of novelty are discordant. Some empirical findings support the criticism mentioned above, suggesting that a market orientation is negatively correlated to the degree a product is new to the customer (Atuahene-Gima 1996), negatively related to radical market-based innovation, i. e. innovations that are often based on simpler new technologies but which create benefits for new markets (Zhou, Yim and Tse 2005), negatively related to radical innovation (Gatignon and Xuereb 1997) or insignificantly related to the degree of novelty for the customers (Salavou 2005).

On the contrary, some empirical findings indicate that a market orientation is positively related to the degree of novelty (e. g. Vazquez, Santos and Alvarez 2001; Sandvik and Sandvik 2003) and positively related to radical technology-based innovation, i. e. innovation which is based on state-of-the-art technology and which creates new benefits for existing markets (Zhou, Yim and Tse 2005). Further, Lukas and Ferrell (2000) found that the market orientation components proposed by Narver and Slater (1990) differ in their impact on the degree of novelty: while cu-

stomer orientation is positively related to the introduction of new-to-the-world products, a competitor orientation is positively correlated to the number of me-too products. A more recent empirical study conducted by Baker and Sinkula (2007) suggests that a market orientation shifts a firm's innovation priority more toward radical innovation activities, while it has no influence on the firm's incremental innovation priority.

To summarise, the existing literature does not provide a clear answer as to the relationship between market orientation and degree of novelty. It should be noted that the abovementioned empirical studies on the relationship between market orientation and degree of novelty are based on the 'traditional' measures of market orientation, i. e. the scale developed by Ruekert (1992), the MCTOR scale (Narver and Slater 1990), the MARKOR scale (Kohli, Jaworski and Kumar 1993) or some modified form of them, thereby focusing on the responsive form.

Hypotheses Development

An increasing number of authors (e. g. Jaworski, Kohli and Sahay 2000; Kumar, Scheer and Kotler 2000; Narver, Slater and MacLachlan 2004, Atuahene-Gima, Slater and Olson 2005; Tsai, Chou and Kuo 2008; Grinstein 2008; Voola and O'Cass 2010) call for a distinction between two complementary forms, namely, responsive (market-driven, customer-led) and proactive (market driving). According to Narver, Slater and MacLachlan (2004), a *responsive* market orientation refers to discovering, understanding and satisfying expressed customer needs, whereas a *proactive* market orientation refers to discovering, understanding, and satisfying latent customer needs. Past measures of market orientation predominantly focused on the responsive market orientation (Narver, Slater and MacLachlan 2004). Similarly, Jaworski, Kohli and Sahay (2000) claim that a market orientation is often interpreted too narrowly as the adaptation of product offerings to the current customer preferences and/or market structure (i. e., *market-driven*) compared to proactively shaping customers and/or the market to enhance a firm's competitive position (i. e., *market-driving*). Both forms should be the foundation of a business's innovation efforts (Narver, Slater and MacLachlan 2004) and are needed for a long-run business performance (Sheth and Sisodia 1999). A responsive market orientation can be successful in relatively predictable and stable environments. Yet in dynamic environments this form of market orientation rarely leads to a competitive advantage because it does not provide sufficient incentive for important innovations (Sla-

ter and Narver 1998; Kumar, Scheer and Kotler 2000) and a foundation for customer loyalty (Narver, Slater and MacLachlan 2004). A responsive market-oriented firm focuses largely on its current knowledge and experience to satisfy expressed customer needs, thereby reflecting exploitative (Atuahene-Gima et al. 2005; Tsai et al. 2008) or adaptive learning (Slater and Narver 1998). In contrast, a proactive market-oriented firm explores new knowledge and markets significantly distant from existing experience (Tsai et al. 2008), thereby reflecting exploratory (Atuahene-Gima, Slater and Olson 2005; Tsai, Chou and Kuo 2008) or generative learning (Slater and Narver 1998). To summarise, a proactive market orientation with its focus on latent customer needs may be more associated with radical innovation in comparison to a responsive form which focuses on expressed customer needs. To date, no empirical study has explicitly addressed the relationship between both forms of market orientation, and degree of novelty. However, in their empirical study Narver, Slater and MacLachlan (2004) found that both forms of market orientation are positively related to an innovation orientation with a proactive market orientation being more strongly related. Based on the latter finding along with empirical findings which suggest that a (responsive) market orientation is not only limited to incremental innovation (e. g. Vazquez, Santos and Alvarez 2001; Sandvik and Sandvik 2003, Baker and Sinkula 2007), the main hypotheses in this study postulate that both forms of market orientation are related positively to the degree of novelty, with a proactive market orientation being more strongly related:

- H1a *A responsive market orientation is positively related to the degree of novelty.*
- H1b *A proactive market orientation is positively related to the degree of novelty.*

Methodology

The sample consisted of Slovenian firms in manufacturing and selected services (wholesale and retail trade, transport, storage and communications, and financial intermediation) with at least 10 employees. A list of 3,732 email addresses of general managers and marketing managers was used as a sampling frame compiled by a call centre at Slovenian's Chamber of Commerce and Industry from the records of the Agency of the Republic of Slovenia for Public Legal Records and Related Services. Each manager was sent an email explaining the general purpose of the study

and the link to the Internet survey. Two follow-up emails were sent to non-respondents. The survey was conducted in the period from January to March 2008. After accounting for undeliverable emails, usable questionnaires from 441 companies were received, constituting a 16 percent response rate which is comparable to some other studies (e. g. Baker and Sinkula 2007 – 15.1%).

A subsample of 325 companies (73.7% of all companies participating in the survey) which had introduced a product, process, marketing and organisational innovation during the 2005–2007 period was retained for this study. The study sample consisted of 54% manufacturing and 46% service organisations. 51% of the companies in the sample were classified as small (10–49 employees), 32% of them were medium (50–249 employees), while 17% were large (more than 250 employees). Of all respondents, 54% were general managers, 30% were marketing managers and the rest mainly held other leading positions in the company. An early versus late respondent analysis provided no evidence of non-response bias.

In order to measure the responsive and proactive market orientation, 20 items on a seven-point Likert scale (1-strongly disagree, 7-strongly agree) were developed based on the existing market orientation measures (Narver, Slater and MacLachlan 2004; Kohli, Jaworski and Kumar 1993; Narver and Slater 1990) along with findings from eight in-depth interviews with managers. Technological and market turbulence were measured based on the widely used scales developed by Jaworski and Kohli (1993) on a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree). Technological turbulence refers to the considered rate of technological change, whereas market turbulence refers to changes in the composition of customers and their preferences (Jaworski and Kohli 1993).

Following the innovation literature and the Oslo Manual (2005) which provides guidelines for measuring innovation in the European Union, four types of innovation were included in the survey: product, process, marketing and organisational. The respondents were asked to assess the predominant level of each type of innovation introduced by the company during the 2005–2007 period ('Please indicate the predominant level of product/process/marketing method/organisational method innovation your company introduced during the 2005–2007 period') on a seven-point scale (1 – minor change, 7 – new-to-the-world; x – no introduction). A similar approach can be found in marketing academic research (e. g. Weerawardena 2003; Weerawardena, O'Casey and Julian 2006, Leskovaar-Špacapan and Bastič 2007).

The questionnaire was pretested with nine academics and twelve managers. In addition, the face validity of the market orientation scale was tested with two academics and four managers.

Results

The analysis was conducted in two steps. First, a confirmatory factor analysis using the AMOS 18.0 software was conducted in order to assess the measurement model with four latent variables (i. e. Responsive market orientation, Proactive market orientation, Technological turbulence, Market turbulence). Second, the structural model was evaluated in order to assess the relationships between both market orientations and the degree of novelty.

Table 1 shows the measurement items retained for the analysis. All four latent variables exhibit indices superior to the reference values of the composite reliability index (ρ_c) and the variance extracted (ρ_v) (see table 1), indicating convergent validity. The literature recommends values of 0.6 or higher for composite reliability (ρ_c) and values of 0.5 or higher for the variance extracted (ρ_v) (Hair et al. 2005). For each pair of constructs, the chi-square difference between the constrained (i. e. the correlation between two constructs was set to 1) and unconstrained model was statistically significant ($\Delta\chi^2 > 3.84$), confirming the discriminant validity of our constructs. In addition, the usual fit indices are better than the commonly accepted thresholds (CFI = 0.983; the literature recommends values of 0.95 or higher; RMSEA = 0.036; the literature recommends values below 0.08; Hair et al. 2005).

Table 2 provides descriptive statistics for the variables under review. The mean scores of RESP and PRO are above the scale midpoint with a significantly higher mean score of RESP (mean = 5.36; SD = 1.00) in comparison to PRO (mean = 5.06; SD = 1.09). No significant differences were found in the mean score of market orientation components given the firm size (small vs. medium and large firms). In order to test the differences, given the environmental characteristics, the firms were split into two groups based on the median value of technological and market turbulence (4.0 and 4.5, respectively). The analysis revealed that the mean scores of RESP and PRO are significantly higher in a business environment characterised by higher technological and market turbulence ($p < 0.001$).

Taking all four types of innovation into account, the average degree of novelty is very close to the scale midpoint (mean = 3.98; SD = 1.17).

TABLE 1 Measurement items retained for the analysis

Items	SFL*
<i>Responsive market orientation – RESP</i> ($\rho_c = 0.84$; $\rho_v = 0.52$)	
We respond quickly to changed customer needs, wants and/or buying behaviour.	0.82
Business functions work in a co-ordinated way so as to satisfy the needs of our target markets.	0.77
We adapt the marketing mix (products, prices, distribution, communication) to the selected target markets.	0.71
We respond quickly to competitors' activities.	0.69
In the case of customer dissatisfaction or complaints we take corrective steps as fast as possible.	0.61
<i>Proactive market orientation – PRO</i> ($\rho_c = 0.85$; $\rho_v = 0.54$)	
We examine problems customers may have with existing products in the market in order to offer a new or better solution to satisfy a need.	0.81
We examine which needs and wants customers may have in the future.	0.75
We try to recognise needs and wants which existing and potential customers are unaware of or which they don't want to disclose.	0.77
We work closely with lead customers who recognise their needs months or years before the majority of potential customers recognise them.	0.68
We develop new products that will satisfy still unexpressed customer needs.	0.66
<i>Technological turbulence</i> ($\rho_c = 0.85$; $\rho_v = 0.66$)	
Technological changes provide big opportunities in our industry.	0.85
The technology in our industry is changing rapidly.	0.84
A large number of new product ideas have been made possible through technological breakthroughs in our industry.	0.75
<i>Market turbulence</i> ($\rho_c = 0.86$; $\rho_v = 0.61$)	
Customer needs and wants are changing fast.	0.89
Customers tend to look for new products all the time.	0.86
Customer buying behaviour is changing fast.	0.79
The structure of our customers is changing fast.	0.55

NOTES * SFL – standardised factor loadings. Model fit: $\chi^2 = 155.1$, $df = 109$, $GFI = 0.947$, $NFI = 0.947$, $TLI = 0.979$, $CFI = 0.983$, $RMSEA = 0.036$.

The mean score of the degree of novelty is significantly higher in larger companies (i. e. medium and large) ($p = 0.008$) and in a business environment with higher technological and market turbulence ($p < 0.001$). The mean scores of technological and market turbulence are around the

TABLE 2 Means and standard deviations (SD)

Variables	Mean	SD	95% CIM
RESP	5.36	1.00	5.25–5.47
PRO	5.06	1.09	4.94–5.18
Degree of novelty	3.98	1.17	3.86–4.11
Technological turbulence	4.12	1.45	3.96–4.28
Market turbulence	4.29	1.29	4.15–4.43

NOTES CIM – confidence interval for mean.

TABLE 3 Baseline model results

	Antecedent	Dependent variable	Std. path coeff.	t^*	Result
H1a	RESP	Degree of novelty	-0.22	-1.02	Not supported
H1b	PRO	Degree of novelty	0.57	2.66	Supported

NOTES Significant at $p < 0.05$ if $|t| > 1.96$.

scale midpoint (mean = 4.12; SD = 1.45 and mean = 4.29; SD = 1.29, respectively) with no significant differences given the firm size.

Hypotheses about the relationship between both market orientations and the degree of novelty (entered as a mean score of all four types of innovation) were tested via the SEM method. The analysis resulted in a good model fit with the data ($\chi^2 = 42.7$; $df = 38$; $p = 0.277$; GFI = 0.977; NFI = 0.975; CFI = 0.997; RMSEA = 0.019). Table 3 summarises the results of hypotheses testing for the baseline model (hypotheses H1a and H1b). The analysis reveals that PRO is positively related to the degree of novelty ($b = 0.57$, $p = 0.008$). Hence, hypothesis H1b is supported. On the other hand, the relationship between RESP and the degree of novelty is insignificant. Hence, no support was found for hypothesis H1a. The model explains 15% of the variance in the dependent variable.

Comparisons between groups of firms were examined using a two-group analysis following Byrne (2001) and Hair et al. (2005). The path coefficient was constrained to be equal between the two groups (i. e. small vs. medium and large firms). Then the χ^2 of this model was compared with an unconstrained model. The non-significant difference in χ^2 ($\Delta\chi^2 < 3.84$, $\Delta df = 1$) indicates no evidence of statistically significant differences in the relationship between RESP and PRO and the degree of novelty, given the firm size and the environmental turbulence.

However, despite statistically insignificant differences between the groups of firms, separate results of the analysis in each group offer an

TABLE 4 Effect of RESP and PRO on the degree of novelty

Groups of companies	Antecedent	Std. path coeff.	t^*	Result
Small	RESP	-0.58	-2.08	Significant effect
	PRO	0.90	3.22	Significant
Medium and large	RESP	0.40	1.05	Non-significant
	PRO	0.01	0.02	Non-significant
Low technological turbulence	RESP	-0.31	-0.99	Non-significant
	PRO	0.58	1.84	Non-significant
High technological turbulence	RESP	-0.35	-1.12	Non-significant
	PRO	0.68	2.17	Significant
Low market turbulence	RESP	-0.27	-0.74	Non-significant
	PRO	0.66	1.81	Non-significant
High market turbulence	RESP	-0.10	-0.40	Non-significant
	PRO	0.33	1.25	Non-significant

NOTES Significant at $p < 0.05$ if $|t| > 1.96$.

additional insight into the examined relationships (see table 4). In small firms (10–49 employees), RESP is negatively related to the degree of novelty ($b = -0.58$, $p = 0.038$), whereas PRO is positively related ($b = 0.90$; $p = 0.001$). Given the level of environmental turbulence, the only significant effect was found for PRO in a business environment with higher levels of technological turbulence ($b = 0.68$, $p = 0.03$).

Discussion

In general, the findings of this empirical study confirm that PRO (Proactive market orientation) is positively related to the degree of novelty, whereas no support was found for the effect of RESP (Responsive market orientation). Since PRO focuses on latent customer needs, a positive effect of PRO on the degree of novelty was expected. Our findings have important managerial implications. In order to enhance the degree of novelty, it is suggested that firms invest resources in raising their PRO. This is particularly important since our study reveals that in Slovenian firms PRO is, on average, significantly less developed than RESP. This clearly suggests that Slovenian companies allocate relatively more resources to responding quickly to changed customers needs and to competitors' activities, the co-ordination of all business functions, adapting the marketing mix to the selected target markets and taking corrective

steps in the case of customer dissatisfaction. On the other hand, Slovenian firms pay relatively less attention to activities related to an examination of customers' problems with existing offerings in order to find a new or better solution to satisfy a need; the examination of unexpressed and future customer needs; working closely with lead customers and developing new products that will satisfy still unexpressed customer needs. By increasing the level of these activities, Slovenian firms can become more proactively market-oriented.

The two-group analyses found no evidence of statistically significant differences in the effect of *RESP* and *PRO* on the degree of novelty between the groups of firms given their size and environmental turbulence. However, separate analyses in each group provide valuable additional findings. In small companies, both market orientations significantly, yet differently, impact the degree of novelty: while *RESP* has a negative impact, *PRO* has a positive impact. If small firms focus on expressed customer needs their innovation efforts will be limited to incremental innovations, while focusing on latent customer needs will lead to a higher degree of novelty. By contrast, in larger firms neither of the market orientations significantly impacts the degree of novelty. This suggests that in larger firms other antecedents of the degree of novelty are more important than market orientation. With regard to environmental turbulence, all that is significant and positive is the impact of *PRO* in firms amidst higher technological turbulence. A technologically more turbulent environment offers more opportunities for the development of new products which can satisfy unexpressed or future customer needs. At the same time, such an environment encourages firms to develop a significantly higher *PRO*. Therefore, a significant positive effect of *PRO* amidst higher technological turbulence was expected. On the other hand, neither of the market orientations has an effect on the degree of novelty given the market turbulence, although firms operating in the context of higher market turbulence on average develop a higher degree of novelty and a higher level of both market orientations. This finding of an insignificant effect is unexpected and warrants further examination. To summarise, while the two-group analyses failed to reveal statistically significant differences in the examined relationships across groups of firms, our study suggests that *PRO* might be more important for small firms and firms operating amidst a higher level of technological turbulence. Statistically significant differences across the groups of firms might be revealed in the case of larger subsamples.

This study makes an important contribution to the existing market orientation literature by distinguishing between a responsive and a proactive market orientation, by embracing not only product innovations but other types as well (i. e. process, marketing and organisational), and by examining the relationship between both market orientations and the degree of novelty across groups of firms given their size and environmental turbulence.

This study also has a number of limitations. First, measures involving a distinction between a responsive and a proactive market orientation are still developing. In future research, improvements and testing of the psychometric features of the two scales are highly recommended.

Second, following the Oslo Manual (2005) this study distinguishes between four types of innovation. Although this distinction is a step towards a more holistic view of innovation, it does not use an adequate set of criteria for the classification. For example, a distinction is made between innovation related to a production and a marketing business function, but not between innovations related to other business functions. Further, a clear distinction between the four types is difficult to establish since an innovation can encompass more than one type. In addition, questions on novelty are likely to be the easiest to answer as regards product and marketing innovations, yet more difficult for process and organisational innovations which may be more specific to an individual firm, and firms may lack information on whether certain innovations have been applied by other firms. In future research, it is recommended to use more items to measure the degree of novelty of each type of innovation.

Third, the findings are based on the subjective assessment of managers who might perceive their firm's activities related to a market orientation and innovation better than their customers. In subsequent research, therefore, it is recommended to also include the views of customers. Fourth, our model explains only 15% of the variance in the degree of novelty, suggesting that other antecedents of innovation should be included in the model (e. g. an innovative culture, a learning orientation, an entrepreneurial orientation etc.).

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