



MARKETING ORIENTATION VS. INNOVATIVENESS OF SMES OF THE PODLASKIE PROVINCE

Joanna EJDYS

Faculty of Management, Bialystok University of Technology, Wiejska Street 2, 15-351 Bialystok, Poland

E-mail: j.ejdy@pb.edu.pl

Received 07 December 2014; accepted 20 May 2015

Abstract. This research aims to examine the impact of marketing orientation on the innovation level among Small and Medium Size (SMEs) from Podlaskie Province. A survey utilizing a questionnaire was conducted among 137 companies in the Podlaskie Voivodeship. Altogether 3 hypotheses concerning marketing orientation and innovativeness level have been examined with the use of the hierarchical regression techniques. The relation between three types of marketing orientation and innovativeness has been analysed: customer orientation, competitor orientation and interfunctional coordination. The research results show that marketing orientation has a positive total effect on improving innovativeness. The conclusions suggest, contrary to the marketing orientation sources, that customer orientation hinder marketing innovation. A positive interrelation between customer orientation and competitor orientation, as a component of marketing orientation and innovation was supported. The positive interrelationships between inter-functional orientation and innovativeness was rejected. The study explores the relationship between marketing orientation and innovativeness, thus theoretically contributing to marketing orientation literature. Moreover, relevant ramifications are provided for management, concerning the ways to boost the level of innovativeness.

Keywords: innovativeness, future oriented strategy, marketing orientation, SMEs sector, customer orientation, competitor orientation, interfunctional coordination.

JEL Classification: L21, M00.

Introduction

Schumpeter pointed out that small companies are the best in the implementation of innovation (Kurz 2012). However, their ability to adopt tools and techniques that create innovation is much lower than in the case of large companies (Maravelakis *et al.* 2006).

In Poland, the SME sector constitutes 99.9% of all the market actors (2014). In the light of the CSO (central Statistical Office of Poland) data, the SME businesses operating in Poland generate every second PLN of the Poland's GDP (47.6% in 2010). The share of the SME sector in Poland in the creation of added value is about 48.4%, while the number of people working in the sector constitutes 2/3 of the total workforce.

Compared to other EU countries, the important role of Polish small and medium-sized enterprises, in terms

of the value of the generated GDP and jobs creation, is not consistent with the level of innovativeness in this sector. According to the Innovation Union Scoreboard (IUS), Poland belongs to the third group – the so-called moderate innovators, occupying the 25th place out of 28 EU countries. Polish entrepreneurs are characterized by their unbalanced potential for innovation, based mainly on human resources, with a very weak capacity for introducing innovation and R&D cooperation. The Polish intellectual capital, as a relatively strong side, is therefore not fully used (2014). In terms of the level of innovativeness of the SME sector, Poland occupies one of the last positions in the European Union (European Commission 2014). The results of research confirm that only 28% of Polish companies are undertaking any innovative activities at all, while the average for the EU is 52% (2012). Among the

30 analysed countries, the percentage of innovative small businesses in Poland represents 23% of all enterprises and it puts Poland in the penultimate place before Bulgaria (22%) (Zadura-Lichota 2013; PARP 2013).

The research of the sector of SMEs in Poland, performed in 2012 by the Polish Agency for Enterprise Development (PARP), indicates serious problems with elaboration and implementation of strategic development plans by that group of companies, while pointing out that, in management, short-term considerations dominate over the long-term perspective. The absence of a distinct perspective concerning the functioning and advancement of the majority of the surveyed enterprises of the SME sector is a serious threat to their development, because it does not encourage innovation efforts affecting the long-term competitiveness. According to the research conducted by PARP, in Polish small and medium-sized enterprise sector, planning future actions in a company is done spontaneously (67.7%). In 14.9% of the surveyed enterprises there is no future action planning. 9.3% of the companies plan their actions based on a written strategy, and around 7.7% use research and analyses results commissioned to external entities (Raźniewski 2010).

Regularity and continuity of the processes that result in the introduction of innovative changes is not a positive feature of the Polish company. Whereas, as the R. Rothwell observed, no systematic approach means that innovation is only a reaction to the actions of the competitors, to tackle the demands of the market or occasionally in response to emerging opportunities, not conscious, deliberately ongoing activities (Rothwell 1992). Still, a difficult challenge for the SME sector is the planning and implementation of strategic development plans, ensuring a gradual increase in innovativeness, and support for the development of intensive growth factors (knowledge, entrepreneurship, human capital). The review of literature, which aimed at analyzing the determining factors of innovation processes at the enterprise level, indicating that a significant problem is lack of capacity for perspective thinking (Lumpkin, Dess 1996; Radas, Bozic 2009; Rahab 2012; Huang, Wang 2011; Rhee *et al.* 2010; Laukkanen *et al.* 2013). The reasons for the low innovativeness of SMEs often lie in the lack of a systematic approach to strategic management – strategic orientation.

However, Van Auken and Sexton argue that because numerous SMEs are characterized by their lack of long range perspective, strategic orientation, as well as well-ordered management process, customer orientation may become a crucial factor determining performance (Laforet 2008).

The main scientific objective of the study is to identify the relationship between the type of strategic orientation – marketing orientation and SMEs innovativeness. In

particular, author tried to answer the following question: In what way do the three types of marketing orientation: customer orientation, competitor orientation and inter-functional coordination determine the level of innovation.

1. Theoretical background of marketing orientation

Strategic orientations comprise the general framework for critical activities (Slater *et al.* 2006) or critical directions taken by a company (Gatignon, Xuereb 1997). It incorporates the theory or attitudes guiding a company's business performance. It constitutes a deeply grounded set of values and convictions that comprise the basis for actions and endeavors to harvest competitive advantage (Gatignon, Xuereb 1997; Zhou *et al.* 2005). Subsequently, strategic orientation has a determining impact on the type and character of the strategy utilized by the organization. Identification of strategic orientation seems to be one of the crucial elements preceding the strategic planning process. In the literature, most often mentioned are three types of strategic orientation of small and medium-sized businesses that determine their innovation: marketing orientation (marketing orientation), orientation towards learning and entrepreneurial orientation (Rhee *et al.* 2010). In literature we can find additional types of strategic orientation, e.g. brand orientation or technology orientation. However, in the case of small and medium-sized companies, their roles can be regarded as secondary.

In the light of literature review, marketing orientation seems to be crucial in the context of the impact on the innovativeness of the SMEs sector. Marketing orientation comprises the knowledge and understanding of customer and the competition. Marketing orientation essentially constitutes the basis for devising and implementing strategies, the aim of which is to ensure customer satisfaction, as well as achieve and maintain competitive advantage. This strategy was developed by Narver and Slater. Authors define marketing orientation, as corporate culture, characterize the organization's inclination to provide its customer with superior value continuously (Slater, Narver 1994). The definition provided by Narver and Slater contains three behavioural components: customer orientation, competitor orientation and interfunctional coordination (Narver, Slater 1990). Also Kohli and Jaworski describe the essence of the notion of marketing orientation and provide a basis for the theory of marketing orientation. They define marketing orientation as the organization-wide propagation of market intelligence regarding the current and future needs of the customers, dissemination of information across the departments, as well as responsiveness across the whole organization to it (Kohli, Jaworski 1994). The proposed definition suggests that a measure of marketing orientation need only assess the degree to

which a company is market oriented, that is, to generate intelligence, disseminate it, and take actions based on it. Despite the fact that numerous other studies concerning marketing orientation have been reported, the majority of authors tend to adopt either the definition provided by Kohli and Jaworski or by Narver and Slater, or utilize them in the role of a point of origin.

As P. Drucker notices “Business purpose can be defined in only one way: The creation of a customer. ... Hence, all business enterprises have only two-basic objectives: marketing and innovation” (Drucker 1954). For this reason the interrelation between marketing orientation and innovation has been debated for decades (Han *et al.* 1998; Atuahene-Gima 1996; Zhang, Duan 2010; Lado, Maydeu-Olivares 2001). Marketing orientation in relation to innovation is the object of scientific interest, from the perspective of the three constituents of this orientation: customer orientation, competitor orientation and inter-functional coordination (Han *et al.* 1998; Grinstein 2008), (Naidoo 2010) different types of innovations: technical innovations (Han *et al.* 1998), administrative innovations (Han *et al.* 1998), product innovation (Atuahene-Gima 1996; Zhang, Duan 2010; Nasution *et al.* 2011) and also types of products: new-to-the-world and me-too-products

products (Lukas, Ferrell 2000); radical and incremental innovation (Baker, Sinkula 2007; Li *et al.* 2008).

A number of scholars argue that marketing orientation have a negative impact on product innovation and organizational performance, as its consequence is the development of uncompetitive “me-too” products instead of actual innovations (Bennett, Cooper 1981). On the other hand, other academics suggest that marketing orientation induces successful innovation and greater organizational performance (Jaw *et al.* 2010; Baker, Sinkula 2007; Kohli, Jaworski 1994; Nazarko *et al.* 2013). The main findings of the study concerning the interrelation between marketing orientation and innovation are shown in Table 1.

For the purpose of this work, the author explores whether marketing orientation improves the organizational innovativeness of Polish SMEs companies.

2. Methodology

As stated by Narver and Slater, the marketing orientation construct has been conceptualized into three distinctive behavioural constituents: customer orientation, competitor orientation and interfunctional coordination (Narver, Slater 1990). Customer orientation and

Table 1. Marketing orientation and innovation as an object of empirical research

Author(s)	Examined relationships	Findings
(Slater, Narver 1994)	Marketing orientation-performance Competitive environment-marketing orientation-performance relationship	The conclusions fail to provide substantial support for the moderator function of a competitive environment regarding the relationship between marketing orientation and performance In author's opinion it would pose a risk for a manager to attempt to adjust a company's marketing orientation to match current the conditions of the market The fact of being market oriented can never be interpreted as a negative
(Narver, Slater 1990)	Marketing orientation-performance	Both in the cases of the commodity and non-commodity businesses, marketing orientation is an essential determinant of profitability
(Kohli, Jaworski 1994)	Marketing orientation-performance	There is a possible relation between marketing orientation and business performance in general, however, under certain conditions it may not be necessary Under the conditions of stable market preferences, limited competition, technologically turbulent industries, and developing economies, marketing orientation may not be strongly related to business performance. The managers of companies operating under such conditions ought to closely consider the cost-benefit ratio of marketing orientation
(Han <i>et al.</i> 1998)	Marketing orientation-innovation Innovation-performance	Customer orientation has a positive influence on innovativeness in technical areas and in administrative areas Competitor orientation has a positive impact on innovativeness in technical areas Competitor orientation has no measurable direct influence on organisational innovations Interfunctional coordination has no noticeable positive impact on innovation in technical areas and in administrative areas

End of Table 1

Author(s)	Examined relationships	Findings
(Lukas, Ferrell 2000)	Customer orientation-line extensions Orientation towards competitors-more me-too products Interfunctional coordination-new-to-the-world products	Customer orientation boosts the introduction of new-to-the-world products and lowers the introduction of me-too-products Competitor orientation boosts the introduction of me-too products and lowers the introduction of line extensions Interfunctional coordination increases the introduction of line extensions and lowers the introduction of me-too new-to-the-world products
(Baker, Sinkula 2007)	Marketing orientation-radical innovation Marketing orientation-incremental innovation Marketing orientation-new product success	Strong marketing orientation supports the balance between incremental and radical innovation by shifting firms' innovation priority more in the direction of radical innovative measures
(Zhang, Duan 2010)	Marketing orientation-innovation Proactive marketing orientation-innovation Marketing orientation-product performance. Responsive marketing orientation-product innovation performance Proactive marketing orientation-product innovation performance. Technological turbulence-relationship between responsive marketing orientation and product innovation performance	The research highlights the significance of both types of marketing orientation to manufacturers in the course of the process of product innovation The total consequence of proactive marketing orientation regarding new product success is greater than that of responsive marketing orientation The direct path is dominant regarding the total effect of responsive marketing orientation on the success of a new product, while proactive marketing orientation impacts product innovation performance mainly through innovativeness fulfilling the function of a mediating variable.
(Laforet 2008)	Marketing orientation-company size Marketing orientation-product innovation, process innovation and organizational culture	In the case of marketing orientation, following the activities of the competitors, minding the environment and staying abreast of technological advancements are more important for innovative enterprises than discovering the method of meeting the current and future needs of the customers The results do not provide any support for the relationship between customer orientation and a company's innovativeness
(Cambra-Fierro <i>et al.</i> 2011)	Inter-firm marketing orientation	The study establishes a scheme for the clarification and extension of the IMO construct In the case of vertical relationships, IMO can be seen as a of learning consisting of the coordination of activities and joining efforts between companies in order to serve a common group of customers
(Jaw <i>et al.</i> 2010)	Marketing orientation-innovation resources Marketing orientation-innovation rewards Marketing orientation-new service development (NSD)	A culture that is market-oriented enhances the deployment of resources related to strategic innovation and motivates employees to develop new services Marketing orientation can constitute an innovative corporate culture strongly encouraging and supporting creative efforts
(Li <i>et al.</i> 2008)	Marketing orientation (responsive and proactive)-innovations (radical and incremental innovations)	Proactive marketing orientation exerts more influence on radical innovations than on responsive marketing orientation Responsive market-orientation has a larger impact on incremental innovations than proactive market-orientation
(Naidoo 2010)	Marketing orientation-marketing innovation capability Marketing orientation-competitive advantage	The positive interrelation between customer orientation as a component of marketing orientation and marketing innovation is not supported Positive interrelationship between competitors orientation and marketing innovation was confirmed The positive interrelation between inter-functional orientation and marketing innovation was confirmed
(Nasution <i>et al.</i> 2011)	Integrated marketing orientation-innovation Integrated marketing orientation-customer value	Integrated marketing orientation seems to be a significant predictor of innovativeness and customer value Marketing orientation has a significant positive influence on product innovativeness

competitor orientation include all of the actions connected with the acquisition of intelligence concerning the buyers and competitor within the target market and its dissemination throughout the business(es). Customer orientation obliges the seller to understand the entire value chain of a buyer, not only in its present state but also its evolution over time, depending on the internal and market dynamics. Competitor orientation expresses the seller's understanding of the short-term pros and cons, as well as long-term strategies and capabilities of both the crucial current and crucial potential competitor (Day, Wensley 1998). Interfunctional coordination is based on information concerning the customer and competitor and comprises the coordinated efforts of a business, frequently with the involvement of more than just the marketing department in order to create superior value for the buyers (Narver, Slater 1990).

The proposed hypotheses are presented according to the relationships between the types of marketing orientation and innovativeness. Attention should be given to the fact that the model and the hypotheses have been defined for small and medium size enterprises.

H1: Customer orientation will have a positive impact on innovativeness

H2: Competitor orientation will have a positive impact on innovativeness

H3: Interfunctional coordination will have a positive impact on innovativeness

For the needs of this research the survey methodology was used for data collection. On the basis of the proposed conceptual model, a series of activities have been developed on the basis of literature review and adapted to the needs of the current research. As the constructs of interest cannot be directly observed, a series of measures were applied for each of the target constructs. The author modified the marketing orientation scale according to Narver and Slater, which was used in various marketing orientation studies (Han *et al.* 1998; Lukas, Ferrell 2000). Eight items were used to measure the customer orientation, three items to measure the orientation towards competitors, three items to measure interfunctional coordination and 10 items to measure the innovativeness level (see the appendix). The questionnaires of the survey, were distributed between May 2014 and October 2014, while maintaining full confidentiality. All of the constructs were gauged with the use of the seven-point Likert scale in order to assess the degree of agreement or disagreement of the respondents with each of the items (1 = completely disagree to 7 = completely agree). The Cronbach's constructs' alpha coefficients were used (ranging from 0.69 to 0.89). The coefficient alphas amounted to .85 (customer orientation), .89 (competitors orientation), .69 (interfunctional coordination), and .90 (innovativeness level).

3. Results

The reported study has the form of a cross-sectional survey on a sample of 137 SMEs, from the Podlaskie region of Poland. The Podlaskie region was selected because the recent level of innovativeness of the Podlaskie enterprises is almost the lowest in the country. Therefore, on the one hand, there is a need to search for the causes of such a low level of innovativeness and, on the other hand, the need of identification of the best solutions to improve their innovativeness. The sampled companies are active in several sectors, including production and services company. Among them, 57.7 percent are micro companies (employing between 1–9 employees), 24.1 percent are small sized companies (employing between 10–49 employees) and 18.25 percent are medium firms (employing between 50–249 employees).

The author examined the correlation between three types of marketing orientation of the firms and the level of their innovativeness. As can be seen in Table 2, all of the constituents of marketing orientation are significantly related to the company's degree of innovativeness.

As shown in Table 3, H1 and H2 were supported. The impact of the two dimensions of marketing orientation (customer orientation and competitor orientation), as well as the characteristics of organizational innovativeness

Table 2. Correlation matrix, Alpha, means and standard deviations (Pearson correlation coefficient)

	Alpha	Mean	Standard deviation	Customer orientation	Orientation towards competitor	Interfunctional orientation	Organizational innovativeness
Customers orientation	0.85	5.26	0.98	1.00			
Orientation towards competitors	0.89	4.88	1.30	0.623*	1.00		
Interfunctional coordination	0.69	5.38	1.03	0.562*	0.448*	1.00	
Organizational innovativeness	0.90	3.92	1.27	0.439*	0.425*	0.186*	1.00

Note: * Correlation are significant $p < 0.05$

Table 3. Test hypotheses results

			Estimate	S.E.	C.R.	P	Hypotesis testing
Organizational innovativeness	<---	Customer orientation	.442	.096	4.596	***	Support
Organizational innovativeness	<---	Competitor orientation	.261	.073	3.587	***	Support
Organizational innovativeness	<---	Interfunctional coordination	-.157	.093	-1.700	.089	Reject

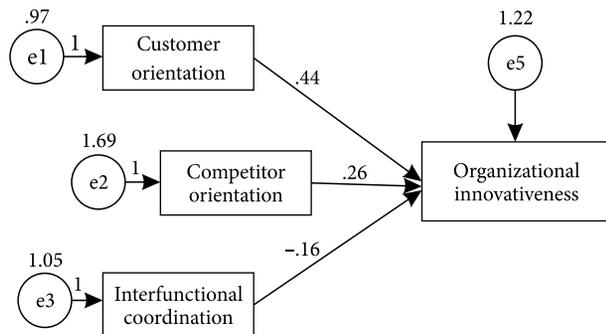


Fig. 1. Path coefficients (regression weights)

were examined. The estimated results show that the paths are significant at the 0.05 level. The results of estimation show that H3 was rejected. The path from interfunctional coordination to innovativeness is insignificant (Table 3, Fig. 1).

4. Discussions and implications

The conducted literature studies confirmed the significant concern of the researchers regarding the issues of relationship between the marketing orientation and the level of innovativeness.

The research confirmed the existence of a significant and positive impact of the two components of marketing orientation: customer orientation (H1) and competitor orientation (H2) on the innovativeness of the surveyed companies. At the same time, a stronger positive relationship between the customer orientation and innovation of the surveyed companies was observed.

However, taking into account the relatively low level of innovativeness of SMEs from the Podlaskie region, as shown by the results, it can also be concluded that the organization strategies based on customer orientation are not sufficient and do not provide a significant improvement of the level of innovation. The explanation of the situation is the fact that very often adopting the customer orientation results in product imitation rather than innovation (Naidoo 2010). Neither do the results of the research conducted by other researchers confirm the positive relationship between the orientation towards consumers and innovation. The results of research conducted by Laforet confirm that in the case of marketing orientation, following the actions of the

competitors, minding the environment and staying abreast with technological changes are of more importance for innovative companies than discovering how to meet the current and future needs of the customer (Laforet 2008). Also the research by Naidoo confirmed that the positive relationship between customer orientation as a constituent of marketing orientation and marketing innovation is not supported (Naidoo 2010).

On the other hand, research conducted by Lukas and Forrell confirmed that customer orientation increases the introduction of new-to-the-world products and reduces the launching of me-too-products. New-to-the-world products are completely innovative and not derivative from older products, indicating a close relationship between the orientation towards consumers and business innovation (Lukas, Ferrell 2000). The organization, without a specific high level of innovation, will not be able to launch a completely new product (new-to-the world), and in the case of domination of the consumer-oriented strategy, they are only a source of ideas and inspiration.

The positive relationships between the competitor orientation and the innovativeness of the surveyed companies, confirmed by the studies, are consistent with the results of other authors. Also, in light of the opinions of other authors (Han *et al.* 1998; Naidoo 2010), the focus on competitor is an important factor in improving the innovativeness of an organization. The competitor orientation concerns the company's capability to identify, sustain and improve its strong sides (and minimise the weaknesses) in relation to other competitors. Taking into account the results obtained by Lukas and Ferrell it should, however, be borne in mind that competitor orientation raises the introduction of me-too products and limits the launching of line extensions (Lukas, Ferrell 2000), which can constitute a significant barrier to the development of an organization. Products of this type often are imitations of the products manufactured by the competitor and in the long term, will not provide the organization with a leading position on the competitive market, merely its survival.

H3 with respect to inter-functional coordination was rejected, which supports the results obtained by Han *et al.*, which confirmed the lack of a positive impact of the inter-functional coordination (MO) on innovativeness (Han *et al.* 1998). Inter-functional coordination concerns the company's capability to execute a coordinated effort among various

functions while still remaining responsive to the needs and wants of the customers. The achieved results may also explain the low level of innovation of the Podlaskie enterprises in the light of research conducted by other authors. In contrast to the results obtained, Naidoo (2010) the research findings suggested that the surveyed SMEs, that are more likely to coordinate their activities across various functions, are more likely to be able to respond to market exigencies by the means of marketing innovation activities.

Most likely, the surveyed companies are characterized by responsive marketing orientation (RMO), which means that the company focuses on discovering and understanding the current and the expressed needs of its customers, not through proactive marketing orientation (PMO) which requires discovering and understanding the latent needs of the customers, which they company might still be unaware of (Li *et al.* 2008). However, to prove this explanation, further and deeper research is required. Generally, radical innovation is associated with lead-the-customer strategies, highlighting the emerging or latent needs of customers.

In light of the results obtained by other researchers, there is no ambiguity indicating the positive relationships or the lack thereof between the three constructs of marketing orientation and organizational innovation. It can be seen that the direction of the relationship and its strength are dependent on the scale, type of market, the level of competition of the market on which the organization operates (Grinstein 2008) and the sector represented by the organization. Considering the above, the future studies should take into account the factors identified above.

Conclusions and limitations

The aim of this study was to empirically identify the interrelation between the type of strategic orientation – marketing orientation and SMEs innovativeness. In particular, the author sought to answer the question regarding the existing relations between the three constructs of marketing orientation: customer orientation, competitor orientation as well as inter-functional coordination, and the innovativeness of the surveyed companies.

By treating the analysed constructs as latent variables, based on the conducted review of the literature, the author has characterized them on the basis of observable variables that allowed to search for tested relationships between latent variables with the use of surveys.

Despite numerous studies conducted in this area by other researchers, in Poland this type of analysis have not yet been conducted. The search for the existing relationships was aimed to assist the author in explaining the relatively low level of innovation in the sector of small and medium-sized enterprises, as compared to other countries.

The presented results constitute the first studies of this type concerning Poland, and still require further study, being aware of the existing limitations.

The results confirmed that an important factor in improving the innovativeness of small and medium-sized is customer orientation and competitor orientation. Customers orientation, means in particular process of understanding the current and future needs of customers, constant monitoring of the level of their satisfaction and commitment to ensure this satisfaction. Another important factor determining the level of innovativeness is competitor orientation, manifested in a rapid response to actions taken by competitors, which requires constant monitoring of the organizational environment. In the process of strategic analysis, it is necessary to analyze the strengths and weaknesses of the competitor and the dissemination and sharing this information inside the organization.

Comparing the strength of the existing relationship between two types of marketing orientation (consumers and competitor orientation) it can be seen that in the group of small and medium-sized enterprises consumer orientation should dominate.

However, as in the case of any research, these findings have to be interpreted with caution because of a number of limitations. The first limitation of this study is its cross-sectional character, as it limits the ability to grasp the causal connection between marketing orientation and innovativeness. The second limitation, of this research is the fact that its context (Podlaskie region) restrains the application of the results to other regional and national contexts. Nevertheless, the use of the Podlaskie region enables to increase our understanding of the role of marketing orientation within other contexts and assists in demonstrating the universality and global significance of that notion. Future research replicating this study in other national contexts would be a welcome addition to our comprehension of the relationship between marketing orientation and innovation.

References

- Atuahene-Gima, K. 1996. Marketing orientation and innovation, *Journal of Business Research* 35: 93–103.
- Baker, W. E.; Sinkula, J. M. 2007. Does marketing orientation facilitate balanced innovation programs? An organizational learning perspective, *Journal of Product Innovation Management* 24: 316–334.
<http://doi.dx.org/10.1111/j.1540-5885.2007.00254.x>
- Bennett, R. C.; Cooper, R. G. 1981. The misuse of marketing – an American tragedy, *Business Horizons* 24: 51–61.
- Cambra-Fierro, J.; Florin, J.; Perez, L.; Whitelock, J. 2011. Inter-firm marketing orientation as antecedent of knowledge transfer, innovation and value creation in networks, *Management Decision* 49: 444–467.
<http://dx.doi.org/10.1108/00251741111120798>

- Day, G. S.; Wensley, R. 1998. Assessing advantage: A framework for diagnosing competitive superiority, *Journal of Marketing* 52: 1–20 [online], [cited 1 October 2014]. Available from Internet: <http://www.jstor.org/stable/1251261>
- Drucker, P. 1954. *The practice of management*. New York: Harper & Row Publishers.
- European Commission. 2014. *Innovation Union Scoreboard 2014*. Brussels [online], [cited 3 November 2014]. Available from Internet: http://ec.europa.eu/enterprise/policies/innovation/files/ius/ius-2014_en.pdf
- Gatignon, H.; Xuereb, J. M. 1997. Strategic orientation of the firm and new product performance, *Journal of Marketing Research* 34: 77–90 [online], [cited 12 October 2014]. Available from Internet: <http://www.jstor.org/stable/3152066>
- Grinstein, A. 2008. The effect of marketing orientation and its components on innovation consequences: a meta-analysis, *Journal of the Academy of Marketing Science* 36: 166–173. <http://doi.dx.org/10.1007/s11747-007-0053-1>
- Han, J. K.; Kim, N.; Srivastava, R. K. 1998. Marketing orientation and organizational performance: Is innovation a missing link?, *Journal of Marketing* 62: 30–45 [online], [cited 1 November 2014]. Available from Internet: <http://www.jstor.org/stable/1252285>
- Huang, S. K.; Wang, Y.-L. 2011. Entrepreneurial orientation, learning orientation, and innovation in small and medium enterprises, in *Proceedings of 7th International Strategic Management Conference*, 30 June – 2 July 2011, Paris, France, 24: 563–570.
- Jaw, C.; Lo, J.-Y.; Lin, Y.-H. 2010. The determinants of new service development: Service characteristics, marketing orientation, and actualizing innovation effort, *Technovation* 30: 265–277. <http://doi.dx.org/10.1016/j.technovation.2009.11.003>
- Kohli, A. K.; Jaworski, B. J. 1994. Marketing orientation: the construct, research propositions, and managerial implications, *Journal of Marketing* 54: 1–18 [online], [cited 1 November 2014]. Available from Internet: <http://www.jstor.org/stable/1251866>
- Kurz, H. D. 2012. Schumpeter's new combinations revisiting his theorie der wirtschaftlichen Entwicklung on the occasion of its centenary, *Journal of Evolutionary Economics* 22: 871–899. <http://doi.dx.org/10.1007/s00191-012-0295-z>
- Lado, N.; Maydeu-Olivares, A. 2001. Exploring the link between marketing orientation and innovation in the European and US insurance markets, *International Marketing Review* 18: 130–144. <http://dx.doi.org/10.1108/02651330110389972>
- Laforet, S. 2008. Size, strategic, and marketing orientation affects on innovation, *Journal of Business Research* 61: 753–764. <http://doi.dx.org/10.1016/j.jbusres.2007.08.002>
- Laukkanen, T.; Nagy, G.; Hirvonen, S.; Reijonen, H.; Pasanen, M. 2013. The effect of strategic orientations on business performance in SMEs A multigroup analysis comparing Hungary and Finland, *International Marketing Review* 30: 510–535. <http://dx.doi.org/10.1108/IMR-09-2011-0230>
- Li, C.-R.; Lin, C.-J.; Chu, C.-P. 2008. The nature of marketing orientation and the ambidexterity of innovations, *Management Decision* 46: 1002–1026. <http://dx.doi.org/10.1108/00251740810890186>
- Lukas, B. A.; Ferrell, O. C. 2000. The effect of marketing orientation on product innovation, *Journal of the Academy of Marketing Science* 28: 239–247. <http://dx.doi.org/10.1177/0092070300282005>
- Lumpkin, G. T.; Dess, G. G. 1996. Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review* 21: 135–172 [online], [cited 22 November 2014]. Available from Internet: <http://www.jstor.org/stable/258632>
- Maravelakis, E.; Bilalis, N.; Antoniadis, A.; Jones, K. A.; Moustakis, V. 2006. Measuring and benchmarking the innovativeness of SMEs: A three-dimensional fuzzy logic approach, *Production Planning & Control* 17: 283–292. <http://dx.doi.org/10.1080/09537280500285532>
- Naidoo, V. 2010. Firm survival through a crisis The influence of marketing orientation, marketing innovation and business strategy, *Industrial Marketing Management* 39: 1311–1320. <http://dx.doi.org/10.1016/j.indmarman.2010.02.005>
- Narver, J. C.; Slater, S. F. 1990. The effect of a market orientation on business profitability, *Journal of Marketing* 54: 20–35 [online], [cited 12 November 2014]. Available from Internet: <http://www.jstor.org/stable/1251757>
- Nasution, H. N.; Mavondo, F. T.; Matanda, M. J.; Ndubisi, N. O. 2011. Entrepreneurship: Its relationship with marketing orientation and learning orientation and as antecedents to innovation and customer value, *Industrial Marketing Management* 40: 336–345. <http://dx.doi.org/10.1016/j.indmarman.2010.08.002>
- Nazarko, J.; Brzostowski, N.; Ejdys, J.; Glińska, E.; Halicka, K.; Kononiuk, A.; Kowalewska, A.; Krawczyk-Dembicka, E.; Łojkowski, W.; Magruk, A.; Nazarko, Ł.; Urban, W.; Paszkowski, J.; Pawluczuk, A.; Skorek, A.; Wasiluk, A. 2013. *Podlaska strategia rozwoju nanotechnologii do 2020 roku. Przełomowa wizja regionu*. Białystok: Oficyna Wydawnicza Politechniki Białostockiej [online], [cited 1 October 2014]. Available from Internet: <http://ntfp2020.pb.edu.pl/pliki/Podlaska-Strategia-Rozwoju-Nanotechnologii-do-roku-2020.pdf>
- PARP. 2013. *GEM. Global Entrepreneurship Monitor – Polska 2012*. Warszawa [online], [cited 1 November 2014]. Available from Internet: <http://www.parp.gov.pl/index/more/30487>
- Radas, S.; Bozic, L. 2009. The antecedents of SME innovativeness in an emerging transition economy, *Technovation* 29: 438–450. <http://dx.doi.org/10.1016/j.technovation.2008.12.002>
- Rahab, 2012. Innovativeness model of small and medium enterprises based on marketing orientation and learning orientation: testing moderating effect of business operation mode, in *International Conference on Small and Medium Enterprises Development with a Theme "Innovation and Sustainability in SME Development" (Icsmed 2012)*, 14–16 June, Jakarta, Indonesia, 4: 97–109. [http://dx.doi.org/10.1016/S2212-5671\(12\)00325-5](http://dx.doi.org/10.1016/S2212-5671(12)00325-5)
- Raźniewski, P. 2010. *Strategia niszy rynkowej jako specyficzny element potencjału rozwojowego mikroprzedsiębiorstwa*. Raport z badań. Warszawa: PARP [online], [cited 10 November 2014]. Available from Internet: http://www.msp.krakow.pl/files/article/poradnik_parp_mikroprzedsiębiorstwa.pdf
- Rhee, J.; Park, T.; Lee, D. H. 2010. Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation, *Technovation* 30: 65–75. <http://dx.doi.org/10.1016/j.technovation.2009.04.008>

- Rothwell, R. 1992. Successful industrial-innovation – critical factors for the 1990s, *R & D Management* 22: 221–239. <http://dx.doi.org/10.1111/j.1467-9310.1992.tb00812.x>
- Slater, S. F.; Narver, J. C. 1994. Does competitive environment moderate the marketing orientation. Performance relationship?, *Journal of Marketing* 58: 46–55 [online], [cited 5 November 2014]. Available from Internet: <http://www.jstor.org/stable/1252250>
- Slater, S. F.; Olson, E. M.; Hult, G. T. M. 2006. The moderating influence of strategic orientation on the strategy formation capability-performance relationship, *Strategic Management Journal* 27: 1221–1231. <http://dx.doi.org/10.1002/smj.569>
- Zadura-Lichota, P. (Ed.). 2013. Świat innowacyjnego społeczeństwa. Trendy na najbliższe lata. Warszawa: PARP [online], [cited 3 October 2014]. Available from Internet: <https://www.parp.gov.pl/files/74/81/626/15959.pdf>
- Zhang, J.; Duan, Y. 2010. The impact of different types of marketing orientation on product innovation performance evidence from Chinese manufacturers, *Management Decision* 48: 849–867. <http://dx.doi.org/10.1108/00251741011053433>
- Zhou, K. Z.; Yim, C. K.; Tse, D. K. 2005. The effects of strategic orientations on technology and market-based breakthrough innovations, *Journal of Marketing* 69: 42–60. <http://dx.doi.org/10.1509/jmkg.69.2.42.60756>

APPENDIX

Measures and Items

Customers orientation	Business functions are geared towards meeting the expectations of the market
Our firm puts much importance on after-sales service	Innovativeness level
Our business objectives are motivated by customer satisfaction	The organization has a high capacity for creating innovations (product, process, marketing and organizational)
In our company, understanding customer needs is the basis for our competitive advantage	The organization has a high ability to implement innovations (expressed as the number of implemented organizational, technological, marketing)
We monitor our level of commitment to serving customer needs	The organization has a high ability to commercialize innovations (expressed as the number of introduced new products on the market)
We monitor level of customer satisfaction	The organization has a high ability to report inventions to patent (in number of entries)
Top management regularly visits key customers	The organization has a high capacity for the registration of industrial designs, utility models, trademarks, copyrights or reservations (expressed as number of registrations)
Customers are targeted when an opportunity exists to gain competitive advantage.	Organization is characterized by the rapid process of innovation implementation
Our strategy for gaining competitive advantage is based on our understanding of customer needs	Organization is defined by a higher level of innovation than its competitors
Orientation towards competitors	The value of sales of new or significantly improved products and services constitute a significant proportion of the average annual sales
In our company, our salesforce shares information concerning competitor information	The organization cooperates very closely with other stakeholders (business, science) in research and development
Our company swiftly responds to the actions of the competition	Members of the organization are encouraged to think and behave in an original and innovative way
In our company, top management regularly discusses competitors' strength and weaknesses	
Interfunctional coordination	
The various departments in our organization share a great deal of information about customer with each other	
Our company understands the fact that every member of the workforce can contribute to creating customer value	

Joanna EJDYS, is currently an Associate Professor at Faculty of Management, Białystok University of Technology. She is a Vice Dean for Research and Development and Editor of *Economics and Management Journal*. Research interests: quality management, foresight studies, strategic management and technology management. Has published more than 30 papers on foresight studies concerning regional and national science and technology innovation policy.