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LEARNING ORIENTATION, FIRM PERFORMANCE AND MARKET DYNAMISM AMONG MSMEs: AN EMPIRICAL STUDY

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Purpose: The aim of the paper is to identify learning orientation of micro-, small- and medium-sized enterprises (MSMEs) in technology parks (TPs) in Poland, and their performance which they gain in the context of the dynamism of the markets operated by them.
Design/methodology/approach: This empirical study focuses on the quantitative analysis of data collected from MSMEs operating in technology parks in Poland. The study sample was composed of 182 enterprises. The two methods used for performing quantitative empirical research are: CAWI and PAPI. The conceptual framework for this research was a theory of dynamic capabilities.
Findings: This study's findings show that learning orientation is undoubtedly surveyed a MSMEs characteristic. This suggests that learning orientation is a universal phenomenon as it has features of different sizes of enterprises. Secondly, it was empirically proven that the way MSMEs were functioning in the market was neither radical nor conservative. These enterprises were rational to seek out and replace obsolete mental models. At the same time, most of them were operating in stable or moderately dynamic markets rather than in turbulent and uncertain environments. The other ones were operating in environments with slightly higher or lower volatility and uncertainty. Lastly, it was shown that the firm performance level is related to the number of employees. These findings are an argument for treating the number of employees as a non-financial measure of organisation's development.
Research implications: Replications and extensions of the current study should be directed to investigate the indirect effect of learning orientation on firm performance via moderating variable (i.e. market dynamism). At the same time, the size of enterprises may be taken into account as a control variable, for example, in the analysis of the relationship between learning orientation and firm performance.
Originality/value: The research shows that LO is not a dichotomous resource.

Keywords: learning orientation, firm performance, market dynamism, micro, small and medium-sized enterprises.

Category of the paper: research paper.

1. Introduction

In response to the constantly changing nature of the economic environment (i.e. increasing environmental concerns, government regulations, and long-term profitability, high customer expectations, intense global competition and industry 4.0 (I4.0) revolution) (Ahmed et al., 2022), enterprises are constantly looking for new opportunities on the market so that they can identify paths of development and prosperity. That is why, much attention is focused on the strategic orientations of enterprises.

There are three overarching types of strategic orientations, such as market orientation (MO), entrepreneurial orientation (EO), and learning orientation (LO) (Wales et al., 2020; Baker et al., 2022; Hyder et al., 2022). In this study, research attention is focused on learning orientation. LO has led to a significant amount of conceptual (i.e. Sinkula et al., 1997; Sheng, Chien, 2016; Alerasoul et al., 2022) and empirical research (Calantone et al., 2002; Farrell, Oczkowski, 2002; Kropp et al., 2006; Lin et al., 2008; Lam et al., 2011; Laukkanen et al., 2013; Deutscher et al., 2016; Hernández-Linares, 2018). These scholars argue that better knowledge and understanding of organisational factors such as LO that guide enterprises' approach to the pursuit of high performance are essential because markets exist in a constant state of disequilibrium. In LO descriptions, scholars have also recognised the role of market dynamism (MD) as a potentially important contextual variable (Wales et al., 2020; Baker et al., 2022; Buccieri et al., 2022). Buccieri et al. (2022) argue that spotting emerging trends to uncover profitable opportunities requires understanding the hidden needs and preferences of target markets. These issues are seen through the lens of market dynamism. Therefore, from the perspective of LO, market dynamism is not a threat, but rather an opportunity to improve development prospects. Enterprises use LO to lead the markets. Therefore, it is believed that recognising external environments in which this organisational ability is developed is reasonable. Even more so, according to Ahmed et al. (2022) SMEs are also affected by technological advances and may use their LOs to improve performance. They are embedded in the context where such advances take place, as well. However, despite the growing interest of scientists in the role of LO, so far, there has been little research on the diagnosis of the levels of various types of strategic orientations and results in micro-, small- and medium-sized enterprises (MSMEs), especially in the perspective of the dynamism of the market in which they operate. This knowledge gap in the literature specifically relates to MSMEs operating in technology parks (TPs) in Poland (Wójcik-Karpacz, 2019, 2021). Therefore, our research attention was directed to MSMEs which have signed lease agreements with TPs in Poland. It is worth emphasising that these enterprises have greater access to the experience of other entrepreneurs, which in turn is an important argument for the concentration of this community. On the other hand, the concentration of entrepreneurs in TPs favours the development of specific organisational abilities (Bednarczyk et al., 2019). It is thought that this also applies to

LO. Moreover, MSMEs are indicated as an important source of job creation and income generation in market economies, in particular those MSMEs which are oriented on growth (Zakrzewski, Skowrońska, 2019).

That is why, the following research questions (RQ) were posed:

RQ1: Is learning orientation a characteristic for MSMEs?

RQ2: Do MSMEs differ in terms of firm performance?

RQ3: What is the degree of dynamism on markets operated by MSMEs?

These three research questions directed our empirical research. In view of above arguments and the identified gaps, the purpose of this study is to identify learning orientation of MSMEs in TPs in Poland and their performance which they gain in the context of the dynamism of the markets operated by them.

The rest of the research paper is organised as follows. Firstly, we define the constructs and explain them in light of the previous literature. Next, we discuss the methodology adopted in the research paper, including the data collection and sample, and the measures used in the study. In the next part, we discuss the results. In the last section, we present implications, limitations, and possible avenues for the future research.

2. Theoritical background

The learning orientation construct was developed to identify those enterprises which are the most and the least likely to seek out and replace obsolete mental models and theory-in-use. Baker et al. (2022) argue that LO emerged from the recognition of the importance of higher order, generative learning to purge organisations of obsolete beliefs about markets, competitors and customers that hinder the ability of enterprises to learn faster and better than competitors. LO is the basis of learning used to produce a learning process (Sinkula et al., 1997).

Currently, the researchers conceptualise LO similarly, claiming that LO gives enterprises the opportunity to unlearn conventional knowledge about markets, customers, and competitors, which has become obsolete, allowing enterprises to avoid competency pitfalls and approach a decision-making process in a more proactive way (Baker et al., 2022). Sheng and Chien (2016) argue similarly that learning orientation tends to be used to create and manage knowledge. Based on the literature, learning orientation is conceived as composed of three key dimensions: commitment to learning, open-mindedness and shared vision (Sinkula et al., 1997). Due to that, the direction or "what to learn?" is influenced by the existence of shared vision within the organisation, as well as the intensity of learning which is defined as motivation determined by commitment and open-mindedness for the creation and use of knowledge (Sinkula et al., 1997; Alerasoul et al., 2022). In practice, learning orientation requires commitment to learning and openness in thinking which are used as drivers of learning in the

organisation (Wahyono, Hutahayan, 2021). Open-mindedness is the willingness to critically evaluate the organisation's operational routine and to accept new ideas, while the shared vision refers to a focus on learning across the organisation (Sinkula et al., 1997). In addition, it is worth adding that without the shared vision, learning among organisation members is of less importance (Verona, 1999). Because of that, learning orientation is used to develop new insights which may then be used to shape behaviour based on values and beliefs (Wahyono, Hutahayan, 2021). That is why, three sub-components, are traditionally recognised as those encompassing the construct of LO at the organisational level of analysis (i.e. enterprise as a whole). In this respect, a learning-oriented enterprise always encourages its staff to engage in both single-loop and double-loop learning, and to question the established routines or long-standing practices of enterprises with openness and a sense of purpose (Lam et al., 2011).

In line with the above findings, learning orientation means enterprise's ability to learn, constantly challenge assumptions previously adopted, and promote change or adaptation over time, which strongly supports the view that LO is a dynamic capability (DC).

Dynamic capabilities are necessary components for gaining significant competitive advantage. All these abilities are expected, among others, to enable enterprises to identify customer needs and business opportunities, while striving to survive and develop by responding to changes in the external environment. Business organisations do this by: adapting their processes to reduce costs, enabling cost-effective innovations; offering themselves new sets of decision choices; generating new knowledge, processes and products; and determining the best moments and ways to align and realign their core internal and external assets to their strategy (Wójcik-Karpacz, 2017; Dubey et al., 2020). This suggests that learning orientation is undoubtedly a firm characteristic that values continuous learning and endless improvement. This contributes to organisation's pursuit of a competitive advantage. If so, learning orientation may be viewed as resources that an enterprise may employ to attain competitive advantage. Learning orientation as an organisational attribute embodies the degree to which enterprises are committed to systematically challenging the fundamental beliefs and practices that define the innovation process itself (Baker, Sinkula, 1999b).

Thus, strong learning-oriented enterprises are arguably capable of promoting generative learning (Sinkula et al., 1997), which in turn facilitates innovations (Calantone et al., 2002; Lin et al., 2008; Baker et al., 2022) and sustainable competitive advantages (Slater, Narver, 1995; Baker, Sinkula, 1999a, 1999b; Calantone et al., 2002; Lin et al., 2008; Wang, 2008; Lam et al., 2011; Wahyono, Hutahayan, 2021). It is worth emphasising that a sustainable competitive advantage requires enterprises to relentlessly engage in product, administrative, technical and/or perceptual innovations faster and/or better than competitors (Baker et al., 2022). Strong learning-oriented enterprises create windows of opportunities in unpredictable markets which would otherwise be unnoticed. As a result, enterprises operating in turbulent markets integrate knowledge to shape reconfiguration activities which result in sustained performance (Bucceri, Park, 2022). Thus, inevitably, an enterprise with such characteristics

outperforms its rivals in the long run (Lam et al., 2011). However, a weak level of LO may be perceived as a threat which may make it difficult for enterprises to maintain the level of performance in new and changing conditions (Gnizy et al., 2014). For this reason, enterprises with weak levels of LO may effectively gather, disseminate and act on new learning, but intractable mental models constrain learning and innovation to adaptive and incremental ones, respectively (Baker et al., 2022).

In conclusion, an extension of resource-based view (RBV) on the dynamic capabilities perspective conceptualises LO as the ability of enterprises to proactively discover, reconcile and, if necessary, change market beliefs upon which strategic and tactical decision-making is anchored (Baker, Sinkula, 1999a; Dubey et al., 2020). Researchers emphasise that the ultimate goal of strategy and tactics is to gain some form of competitive advantage over rivals, and relative, not absolute, measures of performance are needed to look at LO in the context of firm performance (Baker et al., 2022). In the literature, LO is consistently associated with innovation success and performance improvement (Calantone et al., 2002; Lin et al., 2008; Lam et al., 2011; Baker et al., 2022).

Moreover, apart from LO, market dynamism (MD) is also a factor taken into account in the dynamic capabilities theory (Dubey et al., 2020; Wolniak, 2022). MD is defined as a degree of speed and unpredictability of change in technology and competition, and uncertainty of customer behaviour (Wang et al., 2015). In the literature, MD has been recognised as a key situational element in the dynamic capabilities view (DCV) (Eisenhardt, Martin, 2000; Schilke, 2014; Wójcik-Karpacz, 2018), which suggests that the diverse impact of dynamic capabilities (i.e. LO) on firm performance (Helfat, Winter, 2011) depends on the level of dynamism of the organisation's external environment (Eisenhardt, Martin, 2000). Nevertheless, Helfat and Winter (2011) warn that a turbulent environment is not a necessary condition for dynamic capabilities, which can exist even in stable environments. Therefore, in the face of such contradictory arguments, it is quite difficult to determine the true value of dynamic capabilities for organisation's competitive advantage. Amidst such opposing views represented by scholars, researchers have begun to advocate a more contingent view by arguing that the benefits of dynamic abilities depend not only on the existence of underlying organisational routines, but also on the context in which those abilities are implemented (Dubey et al., 2020).

3. Research methodology

3.1. Data collection and sample

Due to the fact that the sampling frame did not allow to identify the general population (enterprises with the status of tenants in technology parks in Poland) in terms of the size of enterprises measured by the number of employees (Art. 7 of the Act of 6 March 2018 - Entrepreneurs' Law, Journal of Laws of 2019, item 1292), all enterprises were surveyed.

Thus, 1 568 structured questionnaires were distributed to collect data from the managers of these enterprises (the so-called tenants). The survey was conducted from March 2017 to December 2018 using two methods, i.e. PAPI (Paper & Pen Personal Interview) and CAWI (Computer Assisted Web Interviews). The returned survey questionnaires made it possible to separate the surveys received from the self-employed (38 self-employed) and large enterprises (5 enterprises) because they were not taken into account in this research. Self-employment was excluded from this study because the LO measure used is dedicated to enterprises having employees (Gnizy et al., 2014). However, large enterprises, as mentioned, were ultimately not taken into account as research objects. As a result, 182 usable questionnaires were received and the response rate was 12%. The study sample included 93 micro-enterprises (excluding self-employment), 68 small enterprises and 21 medium-sized enterprises.

3.2. Measures

Learning orientation was operationalised using the scale ($\alpha = 0.880$), previously used by Gnizy, Baker (2014) who, in turn, had adapted it from the scale developed by Baker and Sinkula (1999a). This construct was measured through the use of six items evaluating the degree to which an enterprise relates to commitment to share vision, learning and open-mindedness. The reliability analysis of the adapted learning orientation questionnaire in the sample indicates a high reliability of this scale ($\alpha = 0.896$).

Market dynamism was operationalised using a six-item scale ($\alpha = 0.730$) created by Wang et al. (2015). Market dynamism was measured by speed and unpredictability of change in technology and competition, and uncertainty of customer behaviour ($\alpha = 0.856$).

Performance measurement was also important, as performance measurement issues are central to evaluating MSMEs' business performance. In order to measure firm performance, a well-established scale ($\alpha = 0.892$) developed by Keh et al. (2007) was used. This construct was measured through the use of three items evaluating the level firm performance, including changes in profitability, sales revenue and market share in relation to their main competitor(s). Values obtained using Cronbach's alpha values ($\alpha = 0.901$) showed very good reliability of this variable. Thus, in the study sample, the reliability of the questionnaire was close to that reported by its authors, and the selection of the sample also did not affect the level of its reliability.

4. Results and Discussion

Statistical description methods were used to analyse the empirical data. The analytical procedure began with the assessment of the reliability of individual scales (Cronbach's alpha test). The purpose of the reliability test, in this case, was to verify whether the reliability of the questionnaire in the sample was similar to that stated by its authors and whether the selection of the sample did not affect the level of reliability of the questionnaire. Three theoretical constructs were analysed for reliability, i.e. learning orientation, market dynamism, and firm performance.

In the next step, descriptive statistics were used to determine the most important information about the phenomena and groups of surveyed enterprises analysed in the study. Numerical variables were described by median, first and third quartile, minimum, maximum, and arithmetic mean with standard deviation. Statistical calculations for the purposes of this study were performed using the R 3.5 program. Table 1 presents the mean levels of variables, standard deviations, minimum, maximum, median, Q25, Q75, and p-value according to individual sizes of the analysed MSMEs.

Table 1.
Size of enterprises according to the number of employees and analysed constructs: learning orientation, market dynamism and firm performance

Construct	Size of enterprises	Mean value	Standard deviation (SD)	Min.[a]	Q25	Median	Q75	Max.[a]	p-value
Learning orientation	from 1 to 9	4,30	0,72	2,50	3,67	4,33	5,00	6,17	0,996
	from 10 to 49	4,32	0,61	2,50	4,00	4,33	4,83	5,67	
	from 50 to 249	4,33	0,97	2,00	3,83	4,50	4,83	6,50	
Market dynamism	from 1 to 9	3,83	1,03	1,00	3,33	3,83	4,33	6,50	0,295
	from 10 to 49	3,97	1,29	1,33	3,08	4,17	5,00	6,67	
	from 50 to 249	3,61	1,01	1,67	3,00	3,67	4,33	5,33	
Firm performance	from 1 to 9	4,34	1,23	1,00	3,33	4,33	5,00	7,00	**0,039***
	from 10 to 49	4,63	1,03	1,00	4,00	4,50	5,33	7,00	
	from 50 to 249	4,90	1,23	1,00	4,33	5,33	5,67	6,33	

Note.* significant at the level of $p < 0.05$; SD - standard deviation; a - some variables do not have integer minimum or maximum values because they are derived from a set of questions corresponding to its value.

Source: own elaboration.

The analysis of the data presented in Table 1 shows that medium-sized enterprises, i.e. those employing from 50 to 249 employees (4.33 on average), were characterised by a similar level of LO as small (employing from 10 to 49 employees) and micro-enterprises (excluding self-employment) (4.32 and 4.30, on average, respectively). Higher than moderate but not yet strong learning-oriented MSMEs identified in these studies according to Lam et al. (2011) indicates that these enterprises may already have been capable of more than a moderate (prudent) effort to challenge adopted assumptions and promote change or adaptation over time. In addition,

it should be noted that the least diversified group consisted of small enterprises, and the most diversified in this respect were medium-sized enterprises. This is evidenced by the recorded values of standard deviation (SD) (0.61 and 0.97, respectively), indicating that the LO level assessment differed from the arithmetic mean by 0.61 points in the group of small enterprises and by 0.97 points in the group of medium-sized enterprises. But the values of arithmetic means of the LO levels as well as the values of standard deviations from the values of the individual arithmetic means of the LO levels were statistically insignificant (a p value greater than 0.05 does not allow for defining the differences as statistically significant). However, taking into account research on business activity, even statistically insignificant results are a large carrier of information. Hence, it is also worth adding that 25% of the respondents from micro-enterprises rated LO as not higher than 3.67 points, and the remaining 75% of the respondents assessed LO as not higher than 5.00 points and not lower than 3.67 points. In turn, 25% of the respondents from small enterprises assessed LO as not higher than 4.00 points, and 75% of the respondents assessed LO as not higher than 4.83 points and not lower than 4.00 points. Moreover, 25% of the respondents from medium-sized enterprises rated LO no higher than 4.5 points, and 75% of the respondents rated LO not higher than 4.83 points and not lower than 3.83 points. This indicates that in the surveyed sample, 75% of micro, small and medium-sized enterprises were characterised by good learning orientation; therefore, according to Hernández-Linares et al., (2018) and Ahmed et al. (2022), these were more entrepreneurial oriented enterprises as such business organisations seem to be more successful in turning this learning into entrepreneurship. Almost good learning orientation could increase the reaction of these enterprises to market and customer conditions (Wahyono, Hutahayan, 2021). Alerasoul et al. (2022) explain this by the fact that enterprises with a stronger LO process information obtained internally and externally, anticipate market and environmental changes, and make the necessary adjustments in order to drive the market and thus avoid being guided by it.

Baker and Sinkula (1999b) have similar observations. These researchers argue that such enterprises scan the external environment for new technology paradigms which may offer better ways to deliver core benefits in a product category. Therefore, in the next step, the respondents also assessed changes in technology, competition and customer behaviour (external environment) in which the surveyed enterprises were operating (Wang et al., 2015).

This research shows that respondents from micro and small enterprises rated the dynamism of the environment (arithmetic mean: 3.83; 3.97; SD: 1.03; 1.29 points) as moderate, while the respondents from medium-sized enterprises perceived it as slightly more stable than moderate (arithmetic mean: 3.61; SD: 1.01). This means that the surveyed enterprises, in the opinion of the respondents, did not have to deal with high-velocity markets. The group of surveyed medium-sized enterprises and similarly the group of micro-enterprises were the least differentiated in terms of the assessment of the degree of market dynamism by the respondents. However, the observed differences between the values of arithmetic means of the MD levels,

as well as the values of standard deviations from the values of individual arithmetic means of the MD levels, did not reach the level of statistical significance.

Moreover, 25% of the respondents from small enterprises assessed the degree of MD as not higher than 3.08 points, indicating that there was no high turbulence in their environment; on the contrary, the degree of MD was low. The remaining 75% of the respondents, in turn, assessed the degree of MD as not higher than 5.00 points and not lower than 3.08 points. Thus, these respondents believe that these small enterprises have also faced a more dynamic and uncertain environment. However, the degree of MD identified does not indicate whether they were operating under highly dynamic environments in that period.

In turn, 75% of the respondents from medium-sized enterprises and micro-enterprises assessed the MD degree identically as not higher than 4.33 points and not lower than 3.33/3.0 points, respectively. This means that this group of surveyed enterprises operates in a moderately dynamic environment with regular changes which generally occur along predictable and linear paths. On the other hand, 25% of the respondents from micro and medium-sized enterprises indicated a low degree of MD, i.e.: 3.33 and 3.00 points or lower, respectively. This shows that these enterprises were perceived by the respondents as operating in markets characterised by infrequent change, where market participants tended to anticipate the changes taking place in the market. Teece (2007) argues that when the environment is relatively stable with no significant technological advances or little change in customer preferences, dynamic capabilities such as LO may be expected to be relatively less important to enterprises' competitive advantage. Wilhelm (2015) believes that organisations facing a lower level of environmental dynamism do not need to adapt their operational capabilities as often as these environments tend to reward the consistent use of existing resources and capabilities. However, Li and Liu (2014) emphasise that in a relatively stable environment, dynamic capabilities (i.e. LO) are also useful to some extent, as there may be little need to develop dynamic capabilities, i.e. only some of the typical operational business tasks. However, it should be borne in mind that the above-mentioned differences in the assessment of the degree of MD were statistically insignificant.

In conclusion, in the opinion of some of the respondents, the surveyed enterprises were characterised by slightly higher LO levels than the average ones, and they did not operate in the high-velocity environments where rapid and discontinuous changes would be commonplace. Rather, these enterprises were operating in a moderately dynamic environment with regular changes which generally followed predictable and linear paths. As may be seen, the degree of market dynamism at that time (before the Covid-19 pandemic) was apparently not high enough to require these enterprises to have very high levels of such dynamic capacity as LO.

In the next step, enterprises' performance was analysed, including changes in profitability, sales revenue, and market share in relation to their main competitor(s) (Khan et al., 2019). The desired trend of changes in the values of these measures is an upward trend (Skoczylas, Niemiec, 2016).

Continuing the analysis of statistical data, slight differences may be noticed between the values of arithmetic means relating to the levels of performance of the surveyed enterprises in relation to those of the main competitor(s). These differences were statistically significant, as indicated by their level of significance (Table 1).

The respondents from medium-sized enterprises assessed the performance of their organisations better than the respondents from micro- and small enterprises (arithmetic mean: 4.90; 4.34; 4.63 - respectively). However, the assessments of the level of performance of micro- and medium-sized enterprises made by the respondents from both these groups are more diverse than those from small enterprises, as evidenced by the recorded values of standard deviations (SD: 1.23; 1.23; 1.03 - respectively). Due to the fact that the respondents assessed the performance of their enterprises in comparison to that of competitor(s), their average score higher or lower than 4 on the seven-point Likert scale also reflects competitive dis(advantage) (Baker, Sinkula, 1999a).

Moreover, only 25% of the micro-enterprise respondents rated the level of performance of their enterprises as slightly lower than that of the main competitor(s) (3.33 points). The remaining respondents (75%) rated the level of performance of their enterprises as higher than that of the main competitor(s) (5.00 points). On the other hand, 25% of the respondents from small enterprises assessed the performance of their enterprises as comparable to that of the main competitors (4.00 points). The remaining respondents (75%) rated their organisation's performance as higher than that of their main competitor(s) (5.33 points).

In contrast, in the case of medium-sized enterprises, 25% of the respondents assessed their performance in relation to that of their competitor(s) as slightly better (4.33 points), and the remaining respondents (75%) assessed their performance as higher than that of their main competitor(s) (5.67 points). Therefore, based on the above-mentioned opinions of the respondents, it may be concluded that, in general, higher performance ratings were recorded in groups of larger enterprises than in smaller ones.

The above analyses of statistical data therefore indicate that in the surveyed group of MSMEs there were enterprises which achieved an advantage over their competitors and those that had no competitive advantage or had performance comparable to that achieved by their competitor(s).

Hence, in the next step, we decided to identify the relationship between the size of an enterprise measured by the number of employees and its performance. The non-parametric Kruskal-Wallis H test we were used to compare continuous variables among the analysed groups. Table 2 shows the significance of pairwise comparisons.

Table 2.
Size of enterprises and firm performance (post-hoc: by Dunn's test)

Number of employees and firm performance (pairwise comparisons: Dunn; p < 0.05)		
	from 1 to 9*	**from 10 to 49**
from 10 to 49	0.153	
from 50 to 249	0.016	0.153

Note: *except for self-employment.

Source: own elaboration.

Statistically significant results obtained on that basis showed a difference in the distribution of a given variable among the groups being compared. It was confirmed by the Kruskal-Wallis H test ($p < 0.05$) that firm performance was assessed better in larger enterprises. The conducted post-hoc tests indicated differences between micro- and medium-sized enterprises while assessing firm performance (Dunn, $p < 0.05$). This suggests that the size of enterprises may be included as a control variable, for example, when analysing the relationship between learning orientation and performance in the MSMEs.

In sum, these analyses only partially allowed to determine how the examined MSMEs differ or are similar to each other in terms of the level of learning orientation, firm performance, and market dynamism degree.

5. Conclusion, limitations, and future research

The descriptive statistics of the analysed variables allowed for the identification of learning orientation, firm performance, and market dynamism according to the size of the analysed MSMEs in technology parks (TPs) in Poland.

In the research sample, not all enterprises had good LO, because there were also those in which the level of LO was at a much lower level. It is worth emphasising that medium-sized enterprises on average were characterised by almost good LO, similarly to small and micro-enterprises (except for self-employment) (Table 1).

Considering that LO is one of the resources which influence the quality of market-oriented behaviours (Baker, Sinkula, 1999a, 1999b), it may be stated that the above-mentioned enterprises in TPs in Poland were rational to question whether the basic beliefs about customers, competitors and suppliers, forming the basis of their previous actions, were still the same. Thus, the way these organisations were functioning on the market was neither radical nor conservative.

At the same time, the identified average degrees of market dynamism indicated that these enterprises were operating in stable or moderately dynamic markets rather than in a turbulent and uncertain external environment. Moreover, the recorded high values of standard deviations prove that not all respondents perceived the degree of MD in which their enterprises were

operating in the same way. There were some respondents claiming that their enterprises were operating in environments with slightly higher or lower volatility and uncertainty than others. Thus, the enterprises that took part in the survey did not constitute a homogeneous group in this respect.

In sum, the assessment of changes in the external environment of the surveyed MSMEs, in the perspective of the respondents, do not indicate that these organisations operate in high-velocity environments. In addition, the analysis of the average LO levels, the values of standard deviations, as well as the values of other descriptive statistics indicate that LO is not a dichotomous resource. This means that it is not something that enterprises have or do not have. The orientation of enterprises to learning, as well market orientation (Baker, Sinkula, 1999a, 1999b) exists along a continuum, i.e. from weak (low) to strong (high) learning-oriented enterprises.

In addition, the respondents from medium-sized enterprises rated the performance of their enterprises better than respondents from micro and small enterprises (Table 1). However, the analysis of standard deviations indicates that the assessments of the levels of performance of micro- and medium-sized enterprises made by the respondents from both groups were more diverse than those from small enterprises (Table 1).

Following this lead, we examined the relationship between the size of an enterprise measured by the number of employees and its performance. The results of the statistical analysis are presented in Table 2, which show that the firm performance level is related to the number of employees. These findings are an argument for treating the number of employees as a non-financial measure of organisation's development (this result was not the aim of the current research). It should be borne in mind that the sample is not representative; therefore, the results of this study may not be generalised to the entire population of MSMEs functioning in TPs in Poland, but they may be referred to the study group. Nevertheless, this study's findings show that enterprises of different size may demonstrate different organisational and environmental characteristics.

Future research may be conducted in order to link market dynamism with learning orientation and firm performance. Hence, replications and extensions of the current study should be directed to investigate the indirect effect of learning orientation on firm performance via moderating variable (i.e. market dynamism). These issues would be the focus of the next study in the series on strategic orientations in the MSMEs in TPs in Poland.

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