

BUSINESS STRATEGY IN INNOVATIVE AND NON-INNOVATIVE COMPANIES OF VARIOUS SIZES

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Abstract

The influence of innovation upon the competitive advantage of companies seems to be an actual issue worth examining. That's why it is interesting to investigate the various aspects of the strategies pursued by companies classified as innovative or non-innovative. The aim of the research was to check whether the differences between enterprises can be traced back to their sizes or should rather be derived from their unique characteristics. In order to test the hypotheses, the correlations (established on the basis of the Kendall's tau-b correlation coefficient) between specified research areas and the size of the company were calculated for the two groups of companies (innovative and non-innovative). The study was conducted using the PAPI technique and the 5-point Likert scale. The research sample included two groups of companies – innovative (88 companies) and non-innovative (34 enterprises). The respondents in the survey included company managing staff. Presenting the findings of the research, it can be pointed out that in a group of innovative companies no distinctness regarding the primary objectives of strategy could be demonstrated. Only the correlations between the size and risk of the business and the implementation of global expansion strategy can be considered. Companies that are not oriented to innovation, however, significantly differ only regarding to strategy formalisation, which increases with the organisation's growth. The main research findings proved that there is a lack of noticeable differences in the strategies of innovative and non-innovative companies analysed in terms of their size.

Key words: aspects of strategy, company size, innovation, competitive advantage, business strategy, small and large company.

Introduction

Investigating the influence of innovation upon the situation of companies seems to be an actual and relevant issue, especially because the interpretation of the results of some studies concludes that the pace and dynamics of changes that occur in the environment are prerequisites for gaining and maintaining a competitive advantage associated with innovation (Zimmerer, Scarborough, Wilson, 2002). Companies that pursue such a strategy are most often organisations that show a high tendency to invest in innovations as they either conduct their own research and development works or buy new technology or product related solutions. So, it can be said that building a competitive edge by introducing innovative solutions depends on an organisation's potential to be innovative (Rolik 2013). The latter, in turn, is contingent not only on the size of the business, but also aspects of pursued strategy such as formalisation, time horizon of the developed growth concept, expansiveness and openness to cooperation with business partners. The research problem of this article is connected with analysing whether there are any differences between the strategies of enterprises that are focused on gaining the competitive advantage based on innovation and those that do not consider it being an important determinant of their success. The research aim is to determine whether or not the chosen aspects of strategy vary between innovative and non-innovative companies and whether or not this is

associated with the size of the organisation. For this purpose, the main and specific hypotheses were formulated, which were verified using Kendall's tau correlation.

Problem of Research

Entrepreneurial innovation can be defined as a situation in which new technologies and scientific inventions open up new economic opportunities and are used by dynamically growing organisations, i.e. entrepreneurial companies that become main leaders in their industries (Freeman, Clark, Soete, 1982). Based on existing research considering the factors that influence the ability to be innovative, reference can be made to three of them that are most important: knowledge, human factor and organisational skills (Saunila, Pekkola, Ukko, 2014; Martínez-Román, Gamero, Tamayo, 2011). What also matters is the formulation and implementation of innovative strategies in companies as high costs, high risk or fears about necessary changes, which are obvious barriers to innovation, have to be taken into account (Xie, Zeng, Tam 2010; Caputo, Cucchiella, Fratocchi, Pelagagge, Scacchia, 2002). Therefore, when investigating the innovation of companies, differences related to their size can be observed, which determines strategic aspects such as access to sources of financing or cooperation with other companies. The research conducted in this article also included other key aspects of strategy, which comprised formalisation, time horizon of the developed growth concept and expansiveness.

When discussing the problem of innovative strategies in companies, reference should be made to their formalisation and the duration of the time horizon. These are elements that are differentiating depending on the size of the enterprise. The influence of formalisation upon innovation in terms of growth concept development is interpreted in various ways. Some researchers believe that formalisation helps build the knowledge potential, which represents an alternative to routine and conventionality (Kern 2006; Feldman, Pentland, 2003). Other researchers point out, however, to negative or restricting effects of formal rules, policies and procedures, which may hinder the creation of knowledge, and consequently prevent creativity and innovation (Pertusa-Ortega, Zaragoza-Sáez, Claver-Cortés 2010).

When correlating the formalisation of strategy with innovation, reference should be made to the size of the company. Some researchers emphasise that the innovative strategy, which is often considered as an attribute of minor companies, is not favoured by excessive formalisation, which is rather typical for large enterprises. It impedes the flow of information and ideas, but also discourages participation in strategic decision-making (Cohn, Turyn, 1984). It is quite certain that strategy formalisation is also affected by possessing adequate resources (including intangible ones) and environmental conditions. In small companies, strategy formalisation is often an effect of external requirements imposed by business partners, banks and other institutions (Kraus, Harms, Schwarz, 2006). Regardless of the motives, it is worth emphasising, however, that, as it appears from some research, in small companies the formalisation of planning has a positive and visible impact on growth, whereas the influence of time horizon, formalised control and the use of strategic instruments is not clear (Kraus, et al. 2006). Perhaps small and medium-sized enterprises pay less attention to developing operational concepts in the long run and, above all, plan their strategy in a short time horizon (Ates, Garengo, Cocca, Bititci, 2013). These aspects certainly affect the potential of innovative companies to develop and implement their strategies.

The strategy of innovation sets out the organisation's activity in the field of innovation, which, in turn, has a huge influence on being competitive. This involves, however, high risk levels, and risk management seems to be a response to the difficulty in predicting changes that may occur in the environment and ensuing uncertainty. It is worth emphasising that risk management capabilities shape a competitive edge associated with various types of risk (Elahi 2012). What also matters is to have adequate resources that are necessary to eliminate the impact of risk on the ability to implement a strategy. Large companies are financially superior to small ones. However, one should notice the results of research showing that incurring substantial

costs that involve high risks does not determine being innovative (Cohen, Klepper, 1996). The attitude and acceptance of a certain risk level is what really matters. As some researchers point out, small companies, too, tend to take risks and be proactive in the struggle for market leadership (Mintzberg, 1973).

Also the dynamic growth is more and more often becoming a strategic priority. It is beyond all doubt, however, that for small and medium-sized companies, innovation as a source of competitive edge poses tough challenges regarding growth and, above all, undertaking of high-risk initiatives (Keizer, Dijkstra, Halman, 2002). Therefore, changes occurring in the environment force smaller entities to pay particularly much attention to profitability, competitiveness and risk (Hosseinzadeh, Vesal, Shamsaddini, Kamel, 2013), especially as far as the expansiveness of strategy and the organisation's dynamic growth are concerned.

Pursuing the strategy of internationalisation and globalisation seems to be an obvious element of growth in innovative companies. Since high costs are involved, this requires, to a large extent, having sufficient financial resources. Therefore, most research into the internationalisation of operations concerns strategies of large businesses. At the same time, internationalisation at its initial development stage turns out to be an efficient strategy for small and medium-sized companies, which are more specialised, operate in market niches and offer either standardized or customised products (Madsen, Servais, 1997). Their growth is related to both innovation and the ability to cooperate with other companies, including foreign ones (Cavusgil, Knight, 1999). However, as shown by research, most small and medium-sized businesses do not use their potential to follow the strategy of internationalisation (Andersson, Victor, 2003).

Despite the great importance of internal sources of innovation, the ability to use external, generally available sources for cooperation purposes is also significant in terms of strategy. In this case, the organisation's competence to convert information into knowledge, which forms the basis of innovation, becomes important. Sharing the knowledge that is created during cooperation has a huge impact on innovation, and consequently on gaining and maintaining a competitive edge over rivals (BarNir 2012; Hansen, Nohriaz 2004). The ability to absorb knowledge is also associated with the organisation's involvement in cooperative work (Gallego, Rubalcaba, Suarez, 2013). But, as the results of the studies on small, innovative companies conducted by Bigliardi, Colacino and Dormio (2011) can be interpreted, one of the main obstacles that companies encounter as they grow and implement innovations, are difficulties in setting up cooperation with other companies. Financial problems, difficult access to financing and lack of adequate resources come only later on. It seems, therefore, that the aspect related to establishing long-term cooperation with business partners is one of the factors that affects innovative companies' ability to pursue a strategy and it is highly contingent on the size of the business.

As mentioned above, there are different aspects that should be considered while analyzing the business strategy, especially when the size and innovation is taken into account. That's why it is worth investigating whether the only determinant influencing the strategy is the size of the company, regardless of its characteristics or is it rather connected with building the competitive advantage on innovation.

Methodology of Research

General Background of Research

The results presented below are a part of a broader research on the evolution of the strategic management process connected with the company development (project titled "Evolution of strategic management during development of enterprises", financed with the funds of the National Science Centre). As the aim of this paper requires analysing innovative and non-innovative enterprises, further studies involved selecting two groups of respondents.

The first one included companies that had confirmed that they used innovative strategy by basing their main competitive edge on innovation and technology. They were 88 companies, of which 33 were small, 24 medium-sized and 31 large enterprises. The second group consisted of companies in which this type of strategy had not appeared. They were 34 companies, of which 10 were small, 14 medium-sized and 10 large enterprises.

The research hypotheses were formulated to investigate the issues relating to differences between aspects of strategies pursued by innovative companies and those that do not declare to have such an approach. The size of the business was also taken into account to find out to what extent this variable determines the characteristics of the individual elements of strategy in the groups under review. The detailed hypotheses are presented in table 1.

Table 1. Research hypotheses.

Strategy aspect	Hypotheses
Formalization	H1: The degree of the strategy formalization increases with the growth of the company.
Horizon	H2: Time horizon of the strategy increases with the growth of the company.
Expansiveness	H3: The risk propensity decreases with the growth of the company. H4: The importance of dynamic growth as a strategic priority decreases with the growth of the company. H5: The size of the company affects the implementation of the global expansion strategy.
Cooperation	H6: The importance of establishing long-term cooperation with the business partners increases with the growth of the company.
Financing	H7: With the growth of the company the access to sources of financing is no longer the barrier of development.

Sample of Research

The original research sample included 150 entities, which were divided according to their size - 50 small (up to 49 employees), 50 medium (50-249 employees) and 50 large companies (employing over 250 people). The legal form of the entities was joint-stock company. Half of them (exactly 50.7%) were listed on the Warsaw Stock Exchange. In addition, all companies were established after 1989 and were founded on the basis of the Polish capital. The respondents in the survey included company managing staff, i.e. Executive Directors, Managing Directors or the Management Board understood as the President and Members of the Management Board.

Instrument and Procedures

The study was conducted using the PAPI (Paper and Pencil Interview) technique – the survey was carried out with the use of a method based on collecting the data in standardized way. Based on the calculations performed for the significance level $\alpha = 0.05$, the value of the maximum estimation error for the main part of the survey was determined to be 7.9% (the size of the general population was assumed as $N = 9519$). The statistical error in the estimation of the proportion was determined for the result with the response distribution of 50%. The level of the statistical error decreases symmetrically for the response distribution proportions larger and smaller than 50%. The survey was performed on the basis of a questionnaire containing 84 questions grouped according to 19 research areas. The 5-point Likert scale was used. Due to the fact that the subject of the studies was the strategic management practice in companies, the questions in the main part of the survey concerned four areas:

1. Strategic management process,
2. Participants in the strategic management,
3. Forms of the strategy
4. Content of the strategy.

In order to test the hypotheses, the correlations between specified research areas and the size of the company were calculated for the two groups of companies. They were established on the basis of the Kendall's tau-b correlation coefficient, which is a non-parametric measure of correlations for ordinal variables.

Results of Research

The correlation coefficients obtained for the two groups of companies are shown in Table 2.

Table 2. Research results.

Hypotheses	Correlation coefficient for innovative companies	Correlation coefficient for non-innovative companies
1	0.006	0.445**
2	0.153	0.118
3	0.189 *	-0.039
4	0.013	0.197
5	0.223 *	-0.03
6	-0.036	-0.03
7	0.049	0.136

* Significant correlation at the level of 0.05 (two-sided)

** Significant correlation at the level of 0.01 (two-sided)

When analysing the results it can be stated that in the case of innovative companies five out of seven results are not statistically significant (apart from 3 and 5). Based on these results it is not possible to draw generalized conclusions regarding the assumptions made for the entire population.

Hypotheses 3 and 5 concerned the relationship between the size of companies and the expansiveness of the strategy implemented. The first one related to the relationship between the company growth and a decreasing risk propensity. The result is statistically significant for the group of innovative companies (the correlation at the level of 0.189) and indicates the existence of weak relation. This means that there is a positive relationship between the company's growth and a decreasing risk propensity. It can be concluded that the companies that implement the growth strategy pay more and more attention to the risk mitigation and conversely. As this relationship was not confirmed in the group of non-innovative companies, the hypothesis was tested positively only in the group of innovative companies.

The correlation calculated in order to examine the hypothesis 5 related to the relationship between the company size and the implementation of the global expansion strategy. The existence of a medium positive relationship (0.223) was proved, but only in the group of innovative companies. It can be stated that the bigger the innovative company is, the more often decisions for the internationalization of its operations are made. The hypothesis was tested positively only in the group of innovative companies.

In the case of non-innovative companies only the hypothesis 1 can be considered to be statistically significant (at the level of 0.01). It assumed the existence of a relationship between the company size and an increase in the degree of strategy formalization. The problem of the strategy formalization with respect to companies of various sizes is discussed often in the

literature and the results of previous studies confirmed the relationship between the degree of strategy formalization and the company size. The studies conducted by the authors indicated that there is such a relationship of fairly significant strength, but only in the group of non-innovative companies. Therefore, the results for the first group of the companies analysed showed that the hypothesis should be rejected, while in the case of non-innovative companies it was tested positively. The conclusions concerning other hypotheses refer only to the companies participating in the survey.

The hypothesis 2 concerned the relationship between the company size and the length of the time horizon. The results obtained indicate the existence of a weak positive relationship (0.153), and thus it can be concluded that the smaller the company, the shorter the time horizon of its strategy. A similar level of correlation (0.118) was obtained for the group of non-innovative companies. Therefore, this indicates a lack of connection between innovations and the time horizon of the strategy.

While testing the hypothesis 4, no connection was found between the company size and the importance of a dynamic growth as a strategic priority for innovative companies. For non-innovative companies the situation is slightly different. The results obtained for them indicate a weak positive correlation (0.197). Thus, the larger the company, the more focused it is on a dynamic growth.

The hypothesis 6 concerned the relationship between the company size and an increase in the importance of establishing a long-term cooperation with business partners. The existence of such a relationship was not proved in relation to any group of the companies surveyed.

Last hypothesis (7) related to the relationship between the company's growth and the access to sources of financing. The results obtained in this research do not indicate that there is a relationship between the company size and difficulties in the access to capital in the case of innovative companies. The results obtained for non-innovative companies seem to be interesting in this context. That's because the existence of a weak positive relationship (the correlation at the level of 0.136) was found in the case of such entities. Therefore, this constitutes a confirmation of the previous research results and indicates a lack of grounds to reject the hypothesis.

Discussion

The conducted research showed that a decreasing risk propensity is a factor that inhibits the growth of companies. This is an interesting relationship, because it confirms the existing knowledge and the research results presented in the literature, particularly the observations related to innovations that are closely associated with the company size and the approach to the risk taking (Keizer et al., 2002). Small enterprises are perceived as very innovative and courageous, while the company's growth often means restriction of the innovation activity as a high-risk initiative. This relationship was not confirmed in the group of non-innovative companies and thus it can be concluded that the company size is not a key determinant of the attitude to the risk, as it is determined rather by the character of the competitive advantage.

There was also proved that among innovative companies there is a relationship between their size and implementing global strategy. It is quite a natural consequence of the adopted development direction and the use of own resources and the competitive position achieved. Large innovative companies have easier access to sources of financing and opportunities for cooperation with other partners which confirms the results obtained by Andersson and Victor (2003). They use for this purpose the innovations introduced on their home markets. However, such a relationship was not found in the group of non-innovative companies, which means that the implementation of the global expansion strategy does not correspond with the company's growth.

Among non-innovative companies the research showed a relationship between the company size and an increase in the degree of strategy formalization. This may result from the

fact that innovative companies must demonstrate a high degree of flexibility. Thus, they often implement the strategies emerging as a result of an analysis of the development opportunities and options, while such strategies do not take the form of expanded and rigid plans for a long time perspective. In such case, the important factor is not the size of the company, but its characteristics – innovative companies depart from establishing detailed formal guidelines for their strategies. In turn, the companies not belonging to this group tend to increase the degree of the formalization along with their growth. This is a derivative of an increase in the amount of resources and the related difficulties in coordination. It can be observed that the results are slightly different from the papers stating that the smaller the company, the less formalized it is and the formalization is the result of external pressure made by different stakeholders (Singhvi, 2000).

As indicated by the research results, the smaller the company, the shorter the time horizon of its strategy, which confirms the other research results (Ates et al., 2013). This may be caused by two factors: a lack of resources for implementing a long-term development concept and a lack of desire to maintain a high level of flexibility, which in turn means that the direction of development and the basic principles of the strategies implemented are only outlined, while no expanded plans are created. The only determinant is the size of the company, regardless of its characteristics.

It seems interesting that the company size has no impact on paying a special attention to the dynamic growth treated as a strategic objective. It can be considered that the growth remains a strategic priority for innovative companies at different stages of development. For non-innovative companies the situation is slightly different, the larger the company, the more focused it is on a dynamic growth. This is slightly different from the previous research results indicating that actions aimed at a greater expansion treated as a strategic priority were characteristic rather for small companies which took them to win the competitive struggle.

The conducted research showed that there is no relationship between the size of the organization and the frequency of actions taken to establish and maintain contact with partners both from the industry and outside. This is associated with the fact that companies of different size and characteristics search for opportunities for co-financing their operations. However, to this end it is required to have an extended database of contacts and the possibility to establish such relations in order to strengthen the competitive position.

The other research results draw a special attention to the financial barrier as a major obstacle limiting the possibility of survival and growth for small businesses. However, the results presented in this article, do not indicate that there is a relationship between the company size and difficulties in the access to capital in the case of innovative companies. It is different from the results obtained by Bigliardi et al. (2011). This means that an innovative strategy is an element that allows gaining external sources of financing for strategic actions, regardless of the company size. The only key issue is to have a reliable concept of development based on new solutions or technologies. For the group of non-innovative companies, the growth translates into a reduction in the barriers preventing the access to external sources of financing. Therefore, this constitutes a confirmation of the mentioned previously research results.

Conclusions

The presented research findings relate to differences in the strategy of innovative and non-innovative businesses depending on their size. Most of the research results cannot be considered to be statistically significant, although they were consistent with the theory and the results of previous studies presented in the literature of the subject.

The innovative companies participating in the survey, although belonged to three different categories in terms of size, did not show any differences in the basic assumptions of their strategies. Only the relationships between the company size and the risk as well as between the company size and the implementation of a global expansion strategy can be considered to

be characteristic of the entire population. The most obvious are the differences between the company size and the strategy in the aspect of the attitude to the risk taking.

In turn, considering the classification by size, the companies that are not oriented towards innovations differ noticeably only with respect to the issue of the strategy formalization. In the case of non-innovative companies, the formalization of the strategy increases along with the growth of the enterprise.

Detailed conclusions drawn for the group of innovative companies participating in the survey are as follows:

- the company size does not determine the degree of the strategy formalization,
- the companies that implement the strategy of growth take measures to mitigate the risk,
- large companies more often implement a global expansion strategy,
- the smaller the company, the shorter the time horizon of the strategy developed,
- there is no relationship between the company size and the access to sources of financing.

However, for the results obtained for non-innovative companies indicate that:

- larger companies have more formalized strategies,
- the company size is not a key determinant of the attitude to the risk and the measures taken to mitigate the risk,
- the implementation of a global expansion strategy is not associated with company size,
- the time horizon of the strategy is shorter in the case of smaller entities,
- the larger the company, the more it is focused on a dynamic growth,
- the growth of the company allows eliminating barriers in the access to capital.

To sum up, it is worth emphasizing that a lack of noticeable differences in the strategies of innovative and non-innovative companies analysed in terms of their size can be interpreted as a clear signal that the company size loses its importance for modern enterprises, regardless of the fact whether they implement innovations or not. Based on these research results, a general conclusion can be drawn that the discrepancies in the assumptions of the strategy between innovative companies of different size are becoming marginal. Currently, when analysing the most important factors determining the success of a company in the competitive struggle, it should be emphasized that in order to be competitive, an enterprise should be innovative, while the innovation becomes a synonym of the competitiveness.

Further studies should focus on verifying the existence of a relationship between the type of the strategy implemented and the results obtained both in the group of innovative and non-innovative companies. Studies on the existence of a connection between innovations, the expansiveness of the strategies implemented and the competitive situation of individual entities also seem to be interesting. Another subject that needs to be examined is the existence of innovations (or their lack) in companies. More specifically it can be described as the search for an answer to the question about the reasons of the interest in innovations or a lack of such interest despite the fact that innovations are considered to be one of the most important factors determining the competitiveness.

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