# WIOLETTA MIERZEJEWSKA<sup>1</sup>

**ABSTRACT.** The topic of strategy-structure relation has already been widely discussed in the literature but the research so far concentrated mainly on large enterprises in developed countries while not much research has been done on a sample of small and medium-sized enterprises in the so called transition economies. This study aims to answer the question whether the strategy is a factor determining organisational structure in small and medium-sized enterprises and whether the structures of small and medium-sized enterprises applying various strategies have different characteristics. Strategies and related organisational structures of SME were analysed using a sample of 380 companies from the SME sector in Poland. The research was carried out using the CATI (computer assisted telephonic interview) method, which made it possible to analyse a large group of enterprises. Factors determining the organisational structure were chosen on the basis of a literature review. The description of organisational structures was based on the concept of Burns and Stalker, identifying mechanistic and organic structures, the different features in respect of level of formalisation, centralisation, standardisation and organisational structure configuration. Strategies were identified according to their development direction (diversification, internationalisation). Unfortunately, the findings of this study show very weak statistical relations between strategy and organisational structure dimensions. This may be associated with other factors influencing the structure of small and medium-sized enterprises, and requires further study. However, in managers' opinion, applied strategy is one of the most important structure-creating factor.

Keywords: strategy, organizational structure

JEL classification: M1: Business Administration; M10: General

<sup>&</sup>lt;sup>1</sup> PhD, Institute of Management, Warsaw School of Economics, Poland, wjakub@sgh.waw.pl

## Introduction

Organisational structure is a system of certain elements and their relations which should make it possible to attain goals of an enterprise. Organisational structures have been evolving along with the changes occurring in enterprises. If we look at the development of industry, certain stages or directions of enterprises development can be distinguished. These directions of development were accompanied by changes within enterprises. Sometimes these changes were introduced in advance to maintain a high level of enterprise operational efficiency, and sometimes the changes were forced by both internal and external factors. It can be stated however that organisational structures were evolving similar to enterprise management.

The issue of organisational structures is very important and up-to-date, although recently scientific publications are more concerned about network structures, while organisational structures are less exposed. The research on organisational structures can be divided in: a) research identifying organisational structures; b) research on structure-creating factors; and c) research on effects of applying a specific organisational structure. The first type includes research which analyse organisational structures in respect of parameters that describe them. It was specific for the first stage of development of management sciences [e.g. Pugh at al. (1968)]. The second and the third type of research on organisational structure are concentrated on investigating the relations between specific parameters or structure types and some elements typical for an enterprise activities. These are both economic indicators and applied action strategies [e.g. Dalton et al. (1980); Pleschko (2006); Tata et al. (1999); Galetić et al. (2000)].

A considerable amount of research on organisational structure is dedicated to structure-creating factors. Research on structure-creating factors considers both internal and external factors. External factors are

identified with the environment in which an enterprise operates. The previous studies prove the existence of relation between the environment uncertainty and the shape of organisational structure. And such environment uncertainty is understood as the level of the organisation's managers' perception of changes in the external environment. Environment uncertainty should result in greater flexibility of activities, although not all research confirm this (Koberg & Ungson, 1987; Bourgeois et al., 1978). Burns & Stalker (1961) published an important study on the impact of the environment on the organisational structure, where they introduced the idea of two extreme forms of organisational structure, depending on the type of environment in which an enterprise operates. The authors identified an organic structure in the case of a dynamic and complex environment, and a mechanistic structure in the case of a stable and certain environment. A mechanistic organisation is rigid and stable, while organic organisation, opposed to the former one, is very adaptable, flexible and changeable. They also suggested that the organic structure would prevail in situations of high information complexity and lack of dependence on resources. Mechanistic structure, on the other hand, would prevail in enterprises operating in sectors with low information complexity and whose activities are conditioned by access to specific resources (Lawrence & Dyer, 1983).

External structure-creating factors are also related to national culture within an enterprise operates. The studies highlighted the diversification in respect of organisational structure parameters of enterprises from different countries (Crozier, 1964; Lincoln et al., 1986).

Much more research is dedicated to internal structure-creating factors such as: age and size of an enterprise; applied production technology and development of information and communication technologies; strategy; employed people. The relations between those factors and organisational structure were investigated among others by Woodward (1965), Perrow (1970), Aldrich (1972), Kimberly (1976), Blau et al. (1976), Koberg &

Ungson (1987), Meier & Bohte (2003), Hensel & Glinka (2006), Zammuto (2007), Brzozowski (2010).

Definitely most research has been dedicated to the dependence between strategy and structure. The pioneer of research on dependence between strategy and structure was Chandler (1962). He had noticed that the development of a company necessitates constant application of different organisational structure, since coordination of various activities within structure applied so far becomes more and more difficult as growth progresses. Development of an enterprise contributes to the growth of scope, number and complexity of actions undertaken by its administration. The research of Chandler was further developed by a group of researchers under the leadership of Scott (1973) from Harvard Business School. They proved that strategy changes consisting in shifting from a single product type production to diversification were accompanied by changes in enterprises' organisational structure. Reconstruction of an enterprise structure into a division or a holding results in changes concerning certain levels of formalisation, centralisation, information flow or control of individual units. Williamson (1975) also indicates that more complex enterprises, applying advanced strategies, should introduce restructuring changes enhancing activities efficiency. Implementation of more complex strategies leads to changes in the area of internal control, extent of power delegation and application of coordination mechanisms. The changes concern also centralisation or decentralisation of certain decisions. Ciborra (1996) indicates that not only specific strategy, but also the development method (alliances, mergers and acquisitions) influence the organizational structure.

Wrigley (1970), Rumelt (1972), Donaldson (1982), and Zakrzewska-Bielawska (2008) also carried out research on the relation between structure and strategy. They analysed enterprises' structures applying diversification as their development strategy. Research results

prove that diversification requires a radical change of organisational structure. Research on changes in organisational structures of enterprises in the internationalisation process was carried out by Kraśniak (2012). He described the nature of organisational structure changes in the internationalisation process by analysing dimensions of organisational structures. It turned out that only the relation between internationalisation and configuration dimension could be identified. However, there was no such relation between the dimensions of centralisation, formalisation or specialisation.

Above mentioned researchers studying the strategy-structure relation indicate that strategy changes are not the only factor causing structural changes. Additionally, such factors are: expanding knowledge about enterprise organisation and new structure types, as well as growing competition and environment changes. It should be highlighted that a considerable amount of research includes analyses of influence of internal and external factors on the shape of organisational structure. Zakrzewska-Bielawska (2008) carried out such research, which resulted in listing factors that could influence the shape of organisational structure. Also Lichtarski (2011) indicates that external factors are mainly stimuli, while among internal factors there are many ones with two-direction influence and barriers that have a negative impact on the implementation and development of task-related structures.

The research mentioned above covered mainly large enterprises. There is no research on structure changes that occur under the influence of strategy in SMEs. Even fewer articles can be found on the comparison between the strategy and changes in the structure of large enterprises and SMEs respectively. It turns out that enterprises, irrespective of their size, tend to implement integrated strategy focusing both on costs and quality. The changes of organisational structures however are directed towards more intense formalisation and simultaneous decentralisation

(Spanos et al., 2001). It is also indicated that SMEs have an advantage over large enterprises due to their increased ability to introduce organisational changes, resulting from flatter and less formal organisational structure (McDonald & Wiesner 1997).

The identification of this research gap determined the present research on the structures of SME. The aim of the article is to answer the question whether strategy is a factor determining organisational structure in small and medium-sized enterprises and whether the structures of small and medium-sized enterprises applying various strategies have different characteristics. The question was answered on the basis of quantitative research on the structures of Polish SME. Subsequent sections of the article describe the method and research sample, and the research results.

# Research method and sample

An analysis of strategies and factors determining the structure was conducted on a sample of Polish companies in the SME sector. It represents a part of a larger research project devoted to the identification of the organizational structure of this group of companies, carried out between 2012 and 2013<sup>2</sup>.

The research project was based on a quantitative method and consisted of 380 computer assisted telephonic interview (CATI)<sup>3</sup>. CATI method offers the possibility to analyse a large group of enterprises with relatively low costs. The standardisation of interviewing technique

<sup>&</sup>lt;sup>2</sup> W. Jakubowska, *Ewolucja struktur organizacyjnych w teorii i praktyce[The Evolution of Organizational Structures In Theory and Practise]*, Raport z badań statutowych SGH [Research report], Warszawa 2013

<sup>&</sup>lt;sup>3</sup> Interviews were carried out by the company named "Indicator. Centrum Badań Marketingowych".

is also an advantage, which minimises the number of mistakes and increases quality of interviews. The disadvantage of CATI method in respect of the subject of research is given by its form and duration. The CATI research provided a data base, which, after revision, became an empirical material for further analysis. The analysis of the empirical material concerning specific research elements consisted in examining both the rate of dispersion of variables and the relations among them.

The study was conducted on three layers, which are distinguished by the number of employees in the company and which corresponded to the three groups of firms: micro, small and medium enterprises. The micro enterprise category accounted for 33.4% of the sample, the small enterprises accounted for 33.7% of the sample, and medium-sized enterprises accounted for 32.9% of the sample.

The main respondents in the study were business owners (104 respondents), a president or a deputy president (109 respondents) and a director-general or a deputy director-general (108 respondents). There were also respondents such as a director or a deputy director of the department (58 respondents) and one person authorized by the persons listed above. The structure of analysed companies was quite diverse. The companies were diversified in terms of revenue: 35% of companies generated an income of less than 8 million PLN, 32.9% have the income between 8 and 40 million PLN and 30.5% of the companies reached an income from 40 to 200 million PLN. Only a small percentage of companies declared an income of over 200 million PLN.

In respect of the business profile the largest share in the research sample were the manufacturing companies (39.7%) and service providers (33.4%). Trading companies had a slightly smaller share (20.6 %). 6.3% of companies were operating in administration sector.

The analyzed companies were mainly companies with domestic capital (72.4%). Only 15.3% were companies owned exclusively by foreign capital, and the remaining 12.4% were companies with mixed capital.

## Results and discussion

Research results made it possible to formulate answers for the research question formulated at the end of introduction and which arose from the gap identified in the literature area of structure-creating factors specific for SME. Below the author attempts to answer the following specific questions: What are the major structure-creating factors according to managers of SMEs? What is the development strategy of SMEs - is it diversification or internationalisation? Does development strategy influence the shape of organisational structure of SMEs?

# What are the major structure-creating factors according to managers of SMEs?

The first step was to analyse how managers of SMEs evaluate the influence of some structure-creating factors. A list of structure-creating factors was drawn up on the basis of literature review. An attempt was also made to distinguish both factors related to enterprises' environments (macroeconomic situation stakeholders' requirements, dynamics of the sector changes, legal and financial system) and factors related to the internal part of an enterprise (applied strategy, size and age of an enterprise, technology, competences of employees and managers, organisational structure). As a result, a list was created enabling identification of factors that Polish SME managers consider to have the most influence on organisational structure.

**Table 1:** Influence of some factors on organisational structure (% of answers)

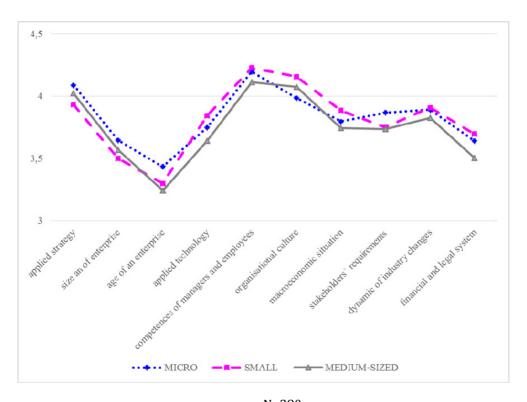
Evaluation of significance Structure-creating factors	definitely low	rather low	neither low nor high	rather high	definitely high
applied strategy	2.4%	3.2%	23.9%	31.8%	38.7%
size of an enterprise	7.9%	11.3%	25.0%	27.4%	28.4%
age of an enterprise	12.4%	13.9%	25.5%	25.3%	22.9%
applied technology	6.1%	7.4%	25.3%	28.7%	32.6%
competences of managers and employees	0.8%	1.6%	21.3%	31.6%	44.7%
organisational culture	1.6%	2.4%	24.2%	31.1%	40.8%
macroeconomic situation	5.0%	6.6%	24.7%	30.0%	33.7%
stakeholders' requirements	4.7%	7.6%	25.5%	28.7%	33.4%
dynamics of sector changes	5.0%	6.8%	21.6%	28.9%	37.6%
legal and financial system	7.4%	10.5%	25.0%	27.6%	29.5%

N=380

The above data indicate that all the factors are to a considerable extent significant from the SME managers' point of view. It can be however noticed that three groups of factors are definitely more significant than the rest. These are, first of all, the competences of managers and employees, the organisational structure followed by applied strategy. This analysis also leads to the conclusion that the factors related to the enterprise internal environment are more significant than those related to the external environment. This proves that SMEs do not focus on their external environment and do not consider it to be a significant factor shaping their internal organisation.

A comparison of average evaluations of individual factors significance has been made to reflect SME managers' opinions more adequately. The rates have been presented on a 5-point scale, however extreme rates occurred in individual situations. The analysis results are presented on the figure below.

**Figure 1.** Average rates of evaluation of the influence of some factors on the organisational structure of enterprises under research



N = 380

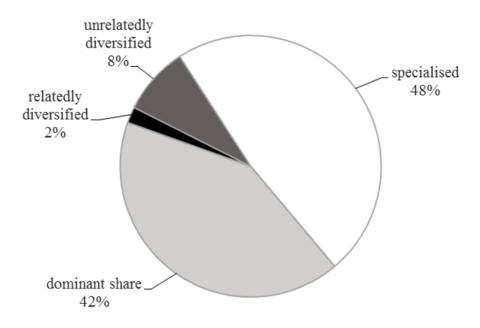
Generally, the perception of significance of specific structurecreating factors in micro-, small and medium-sized enterprises is similar. Apparently, micro-enterprises pay special attention to applied strategy, size and age of an enterprise. This can result from the fact that these entities are often at an early stage of development and the three listed factors have a considerable influence on an enterprise's organisation at that stage. Among small enterprises, the highest average rates, compared to other entities, have been given to such structure-creating factors as technology, competences of employees and managers, organisational structure and macroeconomic situation. Medium-sized enterprises did not differ from the other entities. The rates of their managers were similar or lower than the rates of managers of micro- and small enterprises.

To sum up, it can be stated that according to managers, both external and internal factors play a significant role in shaping organisational structure. And the evaluation of significance of internal factors is much more uniform. These factors are considered to be important and each category listed in the research was similarly significant from the point of view of managers. The evaluation of significance of internal factors is much more diversified. Factors with the highest rates are those related to the social subsystem of an organisation and applied strategy. On the other hand, conditions related to the size and age of an entity are insignificant. The above observations inclined the author to focus on one of the three most important structure-creating factors, i.e. the applied strategy.

# Development strategy of SMEs diversification or internationalisation?

A universal problem of each enterprise concerning the development strategy is represented by choice between diversification and internationalisation. Only the large enterprises, due to their resource potential, are able to apply both diversification and internalisation strategy. Simultaneous development by means of both diversification and

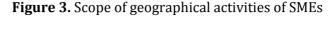
internationalisation is much more difficult for smaller entities, although it is not impossible. Such a double-track development is possible due to changes in economy and technology. The research has identified what strategic option is chosen by SMEs: do they diversify or internationalise? It has turned out that the majority of analysed entities operate in one single sector or have a dominating share in one sector (Figure 2).

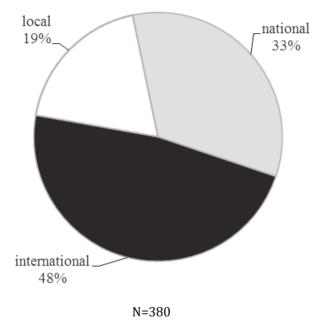


**Figure 2.** Scope of sector activities of SMEs

N=356; 24 lacking answers

Polish SMEs rarely diversify their activities. Only 10% of the entities under scrutiny have been classified as diversified entities. Interestingly, unrelatedly diversified SMEs were definitely prevailing. Diversification is therefore not a popular strategic option. The analysis of geographical scope of the entities' activities also yielded interesting results (Figure 3).



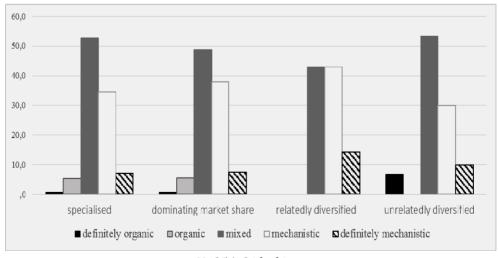


Polish SMEs operate both on local and international markets. It turns out that international activities of Polish SMEs are relatively extended. As much as 48% declare such activities. Slightly less than 19% of SMEs say they operate only on local markets. It can be therefore stated that are willing to Polish SMEs more develop internationalisation than diversification. The first path of development is definitely easier and more secure (less risky) to implement by SMEs, maybe because of IT technology development and functioning of the Common Market. The problem with the choice of strategy development in the case of SMEs is solved by choosing the internationalisation strategy.

# Does development strategy influence the shape of organisational structure of SMEs?

According to the reference literature, applied strategy is one of the most important factors shaping an enterprise's organisation. Therefore, it can be assumed that entities applying various strategy also have various organisational structures. The analysis of structures of SMEs applying various development strategies refers to the model of organic and mechanistic structures, according to the concept of Burns and Stalker (1961). Mechanistic and organic structures differ in respect of the level of formalisation, centralisation, standardisation and configuration of organisational structure (Pugh et al. 1968). Assuming that each of these dimensions (features) can have two extreme values, we can talk about a perfectly flexible (definitely organic) or extremely inflexible (definitely mechanistic) structure.

First, it has been verified weather organisational structures are different in specialised and diversified enterprises (Figure 4).



**Figure 4.** Diversification strategy and organisational structure of SMEs

N=356; 24 lacking answers

It should be noticed that there are no distinct differences between enterprises that apply diversification strategy and those which are more specialised. Irrespective of applied strategy, mixed structure dominates within the analysed enterprises.

Such mixed structures prevail among enterprises applying extremely opposite strategies: industry specialisation and unrelated diversification. It is worth noticing that among unrelatedly diversified enterprises there were most enterprises with definitely organic structure. This results from the fact that carrying out business in many different sectors necessitates decentralisation, delegating power to lower levels - features specific for organic structures.

The enterprises with organic structure occur also among specialised entities with dominating share of the market. This situation is related to a smaller scale of business and smaller size in respect of number of employees. Interestingly, among unrelatedly diversified enterprises there are most entities with mechanistic and definitely mechanistic structure. Related diversification requires considerable coordination of actions to reach a synergistic effect. This can be related to the mechanistic structure, which is featured by formalisation, centralisation, specialisation, standardisation and numerous hierarchy levels.

The second step was to verify whether enterprises with different reach of their business have various organisational structures. Local, national and international reach was distinguished. The analysis results are presented on the figure below.

A mixed structure is dominant in all enterprises, irrespective of their reach, although most enterprises with mixed structure are among those operating only on their local market. The number of entities with mechanistic structure increases with the growth of business reach. It can be a consequence of the need to coordinate actions internationally. Interestingly, a definitely mechanistic structure occurs mostly in small

enterprises with local reach. This can be related to an enterprise owner's will to fully control the business. No entity with definitely organic structure has been found in the category of enterprises with small scale business. It can be assumed that these entities still had not undergone leadership style crisis described by Greiner (1998).

structure of SMES

60

40

30

10

10

local national international

• definitely organic • mixed | mechanistic • definitely mechanistic

**Figure 5.** Internationalisation strategy and organisational structure of SMEs

N = 380

The above analyses show that a relation between strategy and structure cannot be found unanimously. It is also not confirmed by statistic tests analysing the existence of relation between strategy (of diversification or internationalisation) and structure type (definitely organic, organic, mixed, mechanistic, and definitely mechanistic). It has been therefore additionally verified whether there is a relationship between SME development strategy and organisational structure dimensions (Table 2 below).

**Table 2**: Development strategies and organisational structure dimensions

		internationalisation	diversification
centralisation	Spearman's correlation coefficient	.009	038
	Relevance	.429	.236
	N	380	356
formalisation	Spearman's correlation coefficient	033	.054
	Relevance	.262	.155
	N	380	356
standardisation	Spearman's correlation coefficient	041	022
	Relevance	.215	.338
	N	380	356
configuration	Spearman's correlation coefficient	.053	006
	Relevance	.151	.457
	N	378	355
specialisation	Spearman's correlation coefficient	.010	.063
	Relevance	.420	.117
	N	380	356

Source: Own work.

Unfortunately, this approach has not provide any results either. No relation between diversification level and organisational structure dimension has been found. Also, there is no such relation between geographical reach of business and organisational structure dimensions. Applied development strategies do not influence organisational structure of the analysed enterprises.

### 4. Conclusions

Organisational structures of enterprises have evolved over time from simple solutions towards more complex and sophisticated systems. Changes that have occurred in the structures of enterprises have been caused by numerous factors, such as strategy, type of environment, applied technology and other. The research carried out in this field is diverse in respect of the scope and the perception of the examined factors determining the organisational structure. The bulk of the existing research is dedicated mainly to the relation between the strategy and structure and revealed that the enterprise's effectiveness is influenced by the adaptation of structure to the strategy.

The one of the main finding of this study is the conclusion that, in the SME managers' opinion, applied strategy is one of the most important structure-creating factor (right after competences of managers and employees and organisational culture). It turned out that factors related to the enterprise internal environment are more significant than those related to the external environment. This proves that SME managers do not focus on their external environment.

Influence of the development strategy on the organizational form of enterprises is very well described in the literature (see introduction). Particularly, enterprises that applied diversification strategy should introduce structural changes. But it turned out that Polish SMEs rarely diversify their activities. The surveyed enterprises more often implemented internationalisation strategy. The internationalisation strategy should also influence the organizational structure. But the research prove very weak relations between development strategy and organisational structure dimensions. Possibly, the lack of strong relation between strategy as a structure-creating factor and the intensity of organisational structure feature is caused by the fact that the measurement

of its rate has been too general. It can be also related to the slow development of analysed entities and lack of necessity to introduce structure changes.

The second assumption relates to the fact that the influence of factors mentioned in the reference literature on the structure has been usually verified in large enterprises. Unfortunately, in micro-, small and medium-sized enterprises there can be totally different conditions, such as the owner's decisions.

### REFERENCES

- 1. Aldrich H (1972), "Technology and Organizational Structure A Reexamination of the Findings of the Aston Group", Administrative Science Quarterly, vol.17.
- 2. Blau P., McHugh Falbe C., McKinley W., Tracy Ph. (1976), "Technology and Organization in Manufacturing", Administrative Science Quarterly, vol. 21, no. 1
- 3. Bourgeois L. I. III, Mcallister D. W., Mitchell T. R. (1978), "The Effects of Different Organizational Environments upon Decisions about Organizational Structure", Academy of Management Journal, vol. 21, No. 3.
- 4. Brzozowski M. (2010), Organizacja wirtualna [Virtual Organization], PWE, Warsaw.
- 5. Burns T., Stalker G.M. (1961), The Management of Innovation, Tavistock, London.
- 6. Ciborra C. (1996), "The Platform Organization: Recombining Strategies, Structure, and Surprises", Organization Science, March-April.
- 7. Chandler A. D. (1962), Strategy and structure. Chapters in the History of American Industrial Enterprises, The MIT Press, Cambridge.
- 8. Crozier M. (1964), The Bureaucratic Phenomenon, University of Chicago Press, Chicago.

- 9. Dalton D., Todor W., Spendolini M., Fielding G., Porter L. (1980), "Organization Structure and Performance: A Critical Review", Academy of Management Review, vol. 5.
- 10. Donaldson L. (1982), "Divisionalization and Diversification: a Longitudinal Study", Academy of Management Journal.
- 11. Galetić L., Klindžić M., Načinović I. (2010), "Organizational Change as an Instrument of Overcoming Economic Crisis", 5th International Conference An Enterprise Odyssey: From Crisis to Prosperity Challenges for Government and Business, Zagreb.
- 12. Greiner L.E. (1998), "Evolution and Revolution as Organizations Grow", Harvard Business Review, May–June.
- 13. Hensel P., Glinka B. (2006), Projektowanie organizacji [Design Organization], Warsaw University, Warsaw.
- 14. Hoskinsson R.E. (1987), "Multidivisional Structure and Performance. The Contingency of Diversification Strategy", Academy of Management Journal.
- 15. Kimberly J. (1976), "Organizational Size and the Structuralist Perspective: A Review, Critique, and Proposal", Administrative Science Quarterly, Vol. 21, no. 4.
- 16. Koberg Ch. S., Ungson G.R. (1987), "The Effects on Environmental Uncertainty and Dependence of Organizational Structure and Performance. A Comparative Study", Journal of Management, vol. 13, no. 4.
- 17. Kraśniak J. (2012), Zmiany struktur organizacyjnych przedsiębiorstw w procesie internacjonalizacji [Changes in the Organizational Structures of Enterprises in the Process of Internationalization], Wyd. Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
- 18. Lawrence P.R., Dyer D. (1983), Renewing American industry, Free Press, New York.
- 19. Lichtarski J. M. (2011), Struktury zadaniowe. Składniki, własności i uwarunkowania [Task Structures. Components, Properties and Conditions], Wyd. UE we Wrocławiu, Wrocław.
- 20. Lincoln J. R., Hanada M., McBride K. (1986), "Organizational Structures in Japanese and U.S. Manufacturing", Administrative Science Quarterly no. 31.

- 21. McDonald, J. and Wiesner, R. (1997). "Organisational Change and Enterprise Bargaining in Regional SMEs", in: Bramble, T., Harley, B., Hall, R. and Whitehouse, G. (Ed.), Current Research in Industrial Relations, Proceedings of the 11th AIRAANZ Conference, 30 January 1 February, Brisbane.
- 22. Meier K.M., Bohte J. (2003), "Span of Control and Public Organizations: Implementing Luther Gulick's Research Design", Public Administration Review, vol. 63, no. 1.
- 23. Perrow Ch, (1970), "Organizational Analysis: A Sociological View", Wadsworth, Belmont, CA.
- 24. Pleschko L. (2006), "Strategic Orientation, Organisational Structure, and the Associated Effects on Performance", Journal of Financial Services Marketing, vol. 12.
- 25. Pugh D. S., Hickson D. J, Hinings C. R., Turner C. (1968), "Dimensions of Organization Structure", Administrative Science Quarterly.
- 26. Rumelt R. (1972), "Strategy, Structure and Financial Performance of the Fortune "500" 1950–1970", unpublished DBA dissertation, Harvard Business School, presented by: Scott B.R., "The Industrial State. Old Myths and New Realities", Harvard Business Review 1973, vol. 51, Iss. 2.
- 27. Scott B.R. (1973), "The Industrial State. Old Myths and New Realities", Harvard Business Review, vol. 51, Iss. 2.
- 28. Spanos Y., Prastacos G., Papadakis V. (2001), "Greek Firms and EMU: Contrasting SMEs and Large-Sized Enterprises", European Management Journal vol. 19, no. 6, pp. 638–648.
- 29. Tata J., Prasad S., Thorn R. (1999), "The Influence of Organizational Structure on the Effectiveness of TQM Programs", Journal of Managerial Issues, vol. 11, Iss. 4.
- 30. Williamson O. W. (1975), Markets and Hierarchies: Analysis and Antitrust Implication, New York Free Press 1975, presented by: Hoskinsson R. E., "Multidivisional Structure and Performance. The Contingency of Diversification Strategy", Academy of Management Journal, vol. 30, Iss. 4, pp. 625-627.
- 31. Woodward J. (1965), Industrial Organizations; Theory and Practice, Oxford University Press, London.

- 32. Wrigley (1970), "Divisional Autonomy and Diversification", unpublished DBA dissertation, Harvard Business School, presented by: Scott B.R., "The Industrial State. Old Myths and New Realities", Harvard Business Review 1973, vol. 51, Iss. 2.
- 33. Zakrzewska-Bielawska A. (2008), Organizational Design in the Enterprise Development Process. A series of Monographs, Łodź.
- 34. Zammuto R., Griffith T., Majchrzak A., Dougherty D., Faraj S., 2007, "Information Technology and the Changing Fabric of Organization", Organization Science, vol. 18, 5.