

# DISCUSSION PLATFORM 1

## BUSINESS DEVELOPMENT IN CONDITIONS OF GEOPOLITICAL AND GEO-ECONOMICAL CHANGES

UDC 65.012.61

DOI: <http://doi.org/10.31617/k.knute.2019-10-10.01>

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### THE ESSENCE OF THE PRO-PRODUCT ORIENTATION IN THE PROCESS OF CONTEMPORARY ENTERPRISE DEVELOPMENT

*The product-oriented development and the market-oriented development are the directions of development which are among most frequently appearing in the literature on the subject. Examples of successful enterprises show that it is possible to achieve it in exactly these two ways. Therefore, currently, two orientations of enterprise development process stand out: the pro-market and the pro-product orientation.*

*The paper presents problems concerning the product oriented development of enterprises and the pro-product orientation of enterprise development process. The empirical part presents the research carried out among a selected group of stock-listed companies in the years 2010–2018, consisting in the frequency analysis of the occurrence of this enterprise development orientation.*

**Keywords:** *business development, enterprise development, pro-product orientation, strategic management.*

**Роек Томаш. Сутність продукту в процесі розвитку сучасного підприємства.**

*Розвиток міжнародної торгівлі в сучасний період можна охарактеризувати як поєднання нео-вільної торгівлі та неопroteкціонізму. Весь арсенал торгівельної та політичної боротьби між країнами проти традиційних форм обмеження імпорту, ефективні заходи регулювання зовнішньої торгівлі, вжиті адміністративні, фінансові, кредитні, технічні та інші особливості, що створюють переважні перешкоди, що ускладнюють вільний рух товарів через кордони країн. Аналіз та ідентифікація сучасних форм захисту національних ринків показали, що розширення протекціоністських форм та методів є*

*результатом застосування нетарифних обмежень торгівлі, які активно використовуються промислово розвиненими (розвиненими) країнами, зокрема в США, хоча вони представляють себе демонстраторами вільної торгівлі. Наслідки протистояння «великим» економікам проявляються у формі торгових війн, ескалація яких може сильно вплинути на глобальну економіку та торгівлю, а також негативно вплинути на економіку країн, що розвиваються.*

**Ключові слова:** *протекціонізм, неопротекціонізм, міжнародна економічна політика, торговельні війни, зовнішня торгівля.*

Relevance of research topic. Development is treated as a process consisting of logically ordered phases and stages that normally developing organizations go through (Lozano Platonoff, Sysko-Romańczuk, 2003). Every enterprise undergoes changes over time. This is where the division of development into the ordered phases of the lifecycle of an organization comes from. The lifecycle of an organization is defined as «the entirety of phenomena (or processes) creating a closed developmental circle of an organization in a given period» (Gościński, 1989). Functioning in the turbulent environment and going through the subsequent stages of the organizational life cycle, enterprises constantly experience ups and downs. This is the most characteristic manifestation of their development. The research into the development of an organization enabled to notice that it reveals certain regularities.

Formulation of the problem. Thus, it is important to define what conditionings and determinants of the enterprise development process play a crucial role here, what has direct and indirect impact, and, most important, what can be shaped and what can be only reacted to (Machaczka, 1998). Successful enterprises are first of all distinguished by the skills to use changes as a way to survive and grow. Due to constantly appearing new situations and opportunities on the market, development for an organization is a constant game between it and its environment. At the same time, in the contemporary approach to development, the pressure is first of all put on a certain way of thinking and not specific techniques or methods (Doligalski, 2018).

Analysis of recent researches and publications. Enterprise development is a complex process of changes. It is shaped by conditionings which, to some extent, create a set of determinants of enterprise development. In most general terms, they can be defined as instruments, objects or processes designating (determining) the enterprise development process and having a direct or an indirect influence on the development.

In other words, conditions for enterprise development are permanently occurring possibilities or shorter lasting opportunities for the development of an enterprise, existing in a given place and time. They are constituted by all opportunities and threats which may conduce or limit, hinder or even prevent the development of an enterprise in the place where it conducts or would like to launch business activity. Most often, the conditions of the enterprise development process take the form of

certain resources (e.g. workforce, raw materials, technical infrastructure, the volume of demand for goods and/or services, etc.), thus, they have a real dimension, taking a material form. When they have been discovered, they may be used and consumed, to a certain degree contributing to the development of an enterprise in an active way, then becoming factors of development (Chomałowski, 1996). Then, they may stimulate, limit or hinder enterprise development. This is the way in which the development process is influenced by various kinds of economic instruments and parameters, legal regulations, principles of accounting and financial records, instruments of economic, fiscal policy, namely: prices, taxes, reliefs, principles of granting credits, subsidies, grants, etc.

When referring to the category of enterprise development, attention should also be paid to the fact that the enterprise functioning and developing processes remain under a direct or an indirect influence of various conditions and factors. Their occurrence and impact is related to a dynamic aspect of an enterprise and treating changes as objective attributes of the market functioning and the key determinants of the efficient and effective conducting of economic activity (Machaczka, 1998). Owing to that, the enterprise can achieve higher efficiency and, consequently, can achieve and maintain a permanent competitive advantage (Baden-Fuller and Mangematin, 2013). Therefore, one should notice the fact that the influence and the significance of individual conditions and factors with reference to the development process are diverse and to a great extent of an individualized character. A positive or a negative impact of individual factors on the development of an enterprise is relative and cannot disregard the internal situation of a given enterprise, as well as its place and role in the environment. The same factor in one enterprise can appear to be a stimulator of development, whereas in another enterprise, if it does not encounter adequate conditions, may not evoke changes suitable for the enterprise development.

Therefore, according to J. Schumpeter's theory, assuming that the main driving force of the development of enterprises and economies are entrepreneurs who create an elite social group, endowed with a spirit of «creative destruction» (Schumpeter, 1939), at the same time, the processes of functioning and development of an enterprise are under a direct or an indirect influence of many other conditions and factors whose impact is diverse and, to a great extent, of an individualized character. Adopting the assumption that the characteristics of every organization is determined by the states of its «potentials», we can claim that the development of an enterprise consists in the process of changes in the state of its potentials (the size, the resources, the age, etc.) under the influence of internal and external factors.

When discussing the impact of individual factors on the development of an enterprise, one must consider a number of various determinants of the situation of the enterprise, the most important including (Gabrusewicz, 1992):

- current level of development of both the enterprise itself and the economic system in which it functions;

- current developmental challenges of the environment in which the enterprise functions;
- the stage of the enterprise lifecycle;
- concept of business model and adopted orientation of enterprise development process.

The article focuses primarily on the last of the above four determinants of enterprise development, and mainly on the orientation of enterprise development process.

A business model is a method that is adopted by an organization for increasing and using their resources in order to present the offer of products and services to customers, the value of which exceeds the competitors' offers and at the same time ensures profitability for the firm. Such a model defines a detailed plan for earning money (both currently and in the long term) as well as factors conditioning the maintenance of permanent competitive advantage by the business. This means the achievement (in the long term) of better results than their competitors (Afuah, Tucci, 2003). This thesis is the basis for contemporary concepts of business models of enterprises that consist in the shaping of economic, organizational, personal, information and technical, and manufacturing progress, which in effect is supposed to bring about the prolongation of periods of positive changes as well as the shortening or elimination of periods of negative changes and, consequently, the growth of an enterprise measured with the efficiency of its functioning (Johnson, Christensen, Kagermann, 2008). Contemporary business models aiming at the development of enterprises are based primarily on two pro-development orientations: pro-product orientation and pro-market orientation.

Presenting main material. Within this research, an extensive literature review was carried out (Geissdoerfer et al., 2018; Zott, Amit, 2010; Smith, Binns, Tushman, 2010; DaSilva, Trkman, 2014) during which it was established that there are a number of definitions and classifications of orientation of enterprise development process among which there is an unclear terminology difference and implementation potential. Moreover, we can find more and more new concepts of enterprise development process in economic practice that have not been described in the literature so far (or their description is not full). The lack of adequate sources of information about all contemporary enterprise business models with their practical verification makes it difficult for scientists and practitioners to interpret them properly and implement them in economic entities. This potentially limits research, education, and training within that scope and constitutes a significant barrier to the implementation and adaptation of proper orientation of enterprise development process in enterprises. Moreover, it is also an obstacle to achieving a possible synergy effect between an appropriate orientation of enterprise development process, the currently conducted activity, and the conditionings of the environment. The practice of conducting economic activity shows that such a synergy effect is nowadays one of the basic factors for maximizing the

efficiency of business entities' operations. Therefore, two new orientation of enterprise development process really adopted by enterprises on the studied market were identified in the course of the conducted research; their influence on the development of the studied entities was assessed, focusing particularly on the pro-product concept.

The aim of the article is to present the contemporary pro-product orientation focused on business development and the frequency analysis of the pro-product orientation in the enterprise development process on the Polish market. The implementation of the paper's objective allowed to verify the research hypothesis: «The pro-product orientation in the enterprise development process is an important concept among Polish enterprises».

In the verification of the hypothesis thus formulated, a review and critical analysis of the literature related to the proposed subject was made, while an enterprise strategic analysis was applied in the empirical part, especially the Ansoff's model (transformed and adapted by the author in terms of the conducted research), based on the matrix of development vectors. The application of this model enabled the identification of enterprises using the analyzed orientation of enterprise development in the group of the studied enterprises as well as the strategies of development used in those enterprises. The research aims at the facilitation of making a decision by Polish entrepreneurs as for the choice of the proper orientation of enterprise development and indicating the consequences resulting from it. At the same time, it is worth mentioning that the research carried out is pioneering on the Polish market.

Within an attempt made to solve the research gap presented above, various methodological techniques were applied in accordance with the recommendations (Creswell, 2014). First, a review of the literature and the author's own experiences was done, and then broad consultations and discussions were conducted with representatives of company managers. Finally, the selected research model was used; by means of this, the research was carried out on a selected group of enterprises. The aim of the research was to identify and present contemporary actually used concepts of orientations focused on enterprise development, the strategies of development arising from them, and then the frequency of the occurrence of the pro-product orientation on the Polish market in the selected sectors of the economy that were assessed.

In the contemporary economy, the necessity to search for strategies whose aim is to indicate (identify) new sources of competitive advantages that would enable them to react to changes in the global environment seems to be a paradigm that determines the direction of the activity of enterprises.

Enterprise development strategies are primarily conditioned by the adopted concepts of development, which perform the function of a determinant and modifier of the decision-making process in defining the opportunities as well as the choice of a proper strategy of development (Richardson, 2008; Casadesus-Masanell and Ricart, 2010). For the needs of the conducted research, the basis for discussing these problems will be H.I. Ansoff's model showing the possibilities of choosing a proper concept of

development of an enterprise as well as the relationships between enterprise concepts of development and the choice of an appropriate strategy of development (Ansoff, 1957). Developed at the end of the 1950s, this model includes a set of strategies for development in the form of vectors included in the product-market matrix. This model has been transformed and modified in terms of the aim of the conducted research. H.I. Ansoff's model is presented in Figure 1.

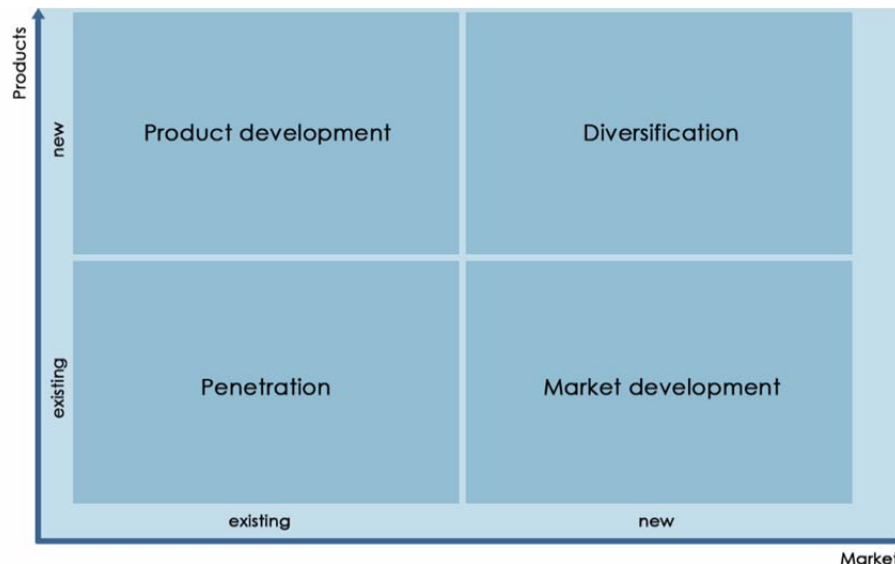


Figure 1. H.I. Ansoff's model of strategy of development

Source: Ansoff (1965, p. 109); Boyd et al. (1995, p. 35).

In the transformed Ansoff's model (modified for the needs of the conducted research), enterprise development can be realised within two orientations:

1. Product-oriented development (pro-product orientation) – enterprises implementing this orientation extend or modify the variety of goods and services produced within one sector as well as launch activity in new sectors and industries;
2. Market-oriented development (pro-market orientation) – enterprises implementing this orientation extend sales to new groups of customers or new geographical areas.

The choice of the proper development strategy consists in selecting a specific scope of the pro-product orientation and the pro-market orientation, that is finding a point in the presented matrix which would be optimum for a given organisation. There are four possible model strategies for development (Romanowska, 2004):

- *Market penetration strategy* – consists in undertaking actions that aim at increasing an enterprise's product sales in the existing market by encouraging customers to increase the number and frequency of purchases or searching for new customers;
- *Product development strategy* – consists in investing in products and introducing modifications of a product and product innovations, and (most of all) extending the product range and entering new sectors and industries;

- *Market development strategy* – consists in offering the existing products in geographically new markets or to segments of customers thus far untapped;
- *Diversification strategy* – consists in entering a new market with new products.

The modified Ansoff's model points to an alternative character of individual concepts of enterprise development. It may be used as a helpful tool in establishing the best development strategy for the enterprise, and it may be a basis to define the current enterprise strategy or its changes over time. Using Ansoff's model, it is possible to:

- define and mark the enterprise's current strategy on a chosen square of the matrix,
- show the evolution of the development strategy of a given enterprise in the long-term, marking consecutive years on the matrix,
- show the diversity of the development strategy in the studied population of enterprises.

In the literature, we can also come across numerous other strategies of enterprise development; however, they are often an extension, variation, or complement of strategies based on Ansoff's model. Ansoff is considered to be one of the pioneers creating the bases of strategic management, and his model seems to be one of the first fully formed concepts of strategic management as a systemised complete set of enterprise development strategies. A significant advantage of Ansoff's model is the possibility of its adjustment and modification in terms of the needs of specific research. Therefore, while conducting the research referring to the market-oriented development of the selected enterprises, the subjective model was used as a benchmark for the proper assessment.

Taking into consideration the fact that the contemporarily existing tendencies of enterprise management most often consist of the maximisation of its owners' benefits, within the framework of the conducted research companies listed on the Warsaw Stock Exchange (WSE) were adopted as the object. As a rule, these are enterprises with a long history of activity, advanced in the application of modern solutions in the management sphere, strongly related to the capital market and interested in the growth of their shareholders' benefits. At the same time, the stock exchange division into sectors guarantees the possibility of studying isolated groups that are homogenous as far as the adopted criteria are concerned.

The Warsaw Stock Exchange is a public institution whose goal is to ensure trading of securities (such as shares, bonds, pre-emptive rights, etc.) admitted to the listing. The WSE task is to organise trading of financial instruments. The stock exchange ensures the concentration of sellers' and buyers' offers in one place and at one time in order to determine the index and conclusion of transactions.

The Warsaw Stock Exchange is one of the most dynamic European markets, and it is an unquestionable leader in Central and Eastern Europe in respect of the key indices describing the market development level, such as capitalisation, the turnover

value, and the number of new companies entering the stock market. In terms of the number of listings, the Warsaw Stock Exchange has been at the forefront of European stock exchanges for several years. Such a dynamic and spectacular growth of the Warsaw Stock Exchange has made it attractive to investors, issuers, and firms mediating in trading from many countries of the world; today, the Warsaw Stock Exchange is a fully international market. Since the beginning of the existence of the stock exchange, shares have been the most popular among individual investors; therefore, Table 1 presents the basic data concerning the companies listed on the WSE during the years 2010–2018.

*Table 1*

**Data concerning companies listed on WSE during the years 2010–2018**

No	Specification	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	The number of listed companies at the end of the year	400	426	438	450	471	487	487	482	465
	- including domestic companies	373	387	395	403	420	433	434	432	414
	- including foreign companies	27	39	43	47	51	54	53	50	51
2	Capitalisation of companies (in millions PLN)	796,482	642,863	734,048	840,780	1,252,958	1,082,863	1,115,719	1,379,858	1,128,508
	- including domestic companies	542,646	446,151	523,390	593,464	591,165	516,785	557,124	670,976	578,949
	- including foreign companies	253,836	196,712	210,657	247,316	661,793	566,077	558,596	708,882	549,558
3	Average P/E ratio	18.2	12.5	11.7	15.8	29.9	18.3	17.3	39.2	11.8
4	Average P/BV ratio	1.16	1.06	0.89	0.96	1.09	1.05	0.82	1.09	0.87
5	Dividend yield (%)	2.4	2.9	3.9	3.6	3.1	2.3	3.4	2.3	3.3
6	Value of turnover in the whole year (in millions PLN)	234,288	268,138	202,880	256,146	232,865	225,287	202,293	260,978	211,850

*Source: Author's own study on the basis of WSE data.*

In the process of selecting the research objects, the sector approach was used; this consists in choosing the researched enterprises grouped in sectors as related to the criterion of the subject of activity. The chosen (or all) participants of the sector are



placed against the sector, and the relationships and reactions among them are described. This approach assumes that activities of an enterprise are a reaction to the changes undergoing in the sector and (first of all) to the decisions made by the most important competitors. The approach does not require going into the decision-making mechanism. An enterprise is treated as an object that transforms information and supplies inputs into certain decisions. Their big susceptibility to development (adopted by assumption, *ex ante*) should be a criterion of selecting sectors for the research. A lot of reasons (especially practical ones) speak for choosing the sector approach for the research into the strategic behaviour of enterprises. The following reasons lead to the decision:

1. Due to the reluctance of enterprises to give interviews and reveal data and information, it seems more real to observe enterprises from the outside and record their strategic reactions.

2. The sector approach enables us to understand better the logics of enterprise behaviour, since it relates them to changes undergoing in the whole economy, the sector, and in the behaviour of the sector participants, eliminating subjective ways of explaining the behaviour of enterprises.

3. The sector research is less laborious and cheaper – as a result, it can include a greater area of the economy and number of enterprises, which then translates into a broader base for formulating generalisations.

In accordance with the methodological assumptions, the research includes enterprises grouped in five WSE sectors: construction, electromechanical, IT, metallurgical, and food.<sup>1</sup> It was assumed *ex ante* that all the sectors selected for the research are sectors that are to a great extent susceptible to development, adequately numerous, and grouping enterprises with a long presence on the WSE.

Due to the necessity to establish the period and the number of the studied enterprises (being a compromise between the requirement to obtain a sufficiently large number of the studied group and conduct an analysis in a sufficiently long period), the following arrangements were made:

1. The years 2010–2018 were adopted as the period of analysis;
2. The total number of 66 enterprises (companies) was chosen as the object of the research, and each of them was listed on the WSE from 2010 until the end of 2018 at the latest.

Table 2 shows the presentation of the studied enterprises with a division into sectors.

The construction sector is a sector that concentrated the largest number of companies on the Warsaw trading floor at the end of 2018. It is also regarded as one of the most profitable and prospective sectors.

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<sup>1</sup>Division into sectors and attributing individual enterprises to them were carried out on the basis of the classification used by the Warsaw Stock Exchange.

The electromechanical industry stands out with increased diversification of produced goods and a high ranking in the economy. At present, it is the most dynamically developing sector in highly developed countries. Its role consists in supplying machines and devices to other branches of industry and economy. The development level of this sector influences the overall level of production, as well as the quality of goods. Thus, the relationships between the electromechanical sector and the fields of science are important, as is its ability to turn fast technological achievements into the production process. It requires extensive involvement of capital, high-tech engineering solutions, and highly qualified employees.

*Table 2*

### **Presentation of all sector enterprises**

Sectors				
Construction	Electromechanical	IT	Metallurgical	Food
BUDIMEX	AMICA	ASSECOPOL	ALCHEMIA	AMBRA
DECORA	APATOR	COMARCH	BORYSZEW	GOBARTO
ELBUDOWA	HYDROTOR	ELZAB	COGNOR	INDYKPOL
ELKOP	INTROL	IFIRMA	FASING	KERNEL
ENAP	LENA	OPTEAM	FERRUM	KSGAGRO
ERBUD	MANGATA	PROCAD	HUTMEN	KRUSZWICA
ES-SYSTEM	PATENTUS	SIMPLE	IMPEXMET	MILKILAND
FERRO	RAFAKO	SYGNITY	KETY	PEPEES
HERKULES	RELPOL	TALEX	KGHM	WAWEL
INSTALKRK	REMAK	WASKO	MENNICA	ZYWIEC
LENTEX	WIELTON		ODLEWNIE	
MOSTALPLC	ZPUE		PERMEDIA	
MOSTALWAR			STALPROD	
MOSTALZAB				
PBG				
PEMUG				
POLIMEXMS				
PROCHEM				
PROJPRZEM				
SELENA				
ULMA				

*Source: Author's own study on basis of WSE data and websites of the studied enterprises.*

The IT sector is a sector that has very high dynamics and the expected beneficial prospects of development. At present, a number of companies make up this group, but the majority of them are characterised by less seniority on the stock exchange.

Enterprises of the metallurgical sector group deal with the production and processing of metals and related products, the extraction of metallic ores and foundry processes, as well as the production of fixtures, tin ware, tools, and vessels. The production of metal finished goods shows the highest growth dynamics in this sector,

whereas the production of metals shows the lowest dynamics. The prospects for the development of the metallurgical sector in Poland are considered to be favourable, so an increase in the investment expenditure in this sector is planned. This will accompany the modernisation and development of the Polish economy.

The food sector is one of the most important and fastest-growing branches of the economy in Poland. Globalisation processes and the gradual abolishment of international trade barriers accompanying them have increased the role of competitive struggle among enterprises in the internal and external markets. The conditionings have positively influenced the Polish food sector enterprises that, in addition to taking advantage of the European Union support for this programme, have coped with competition and market forces and become a significant element of competition in the European and world markets. Enterprises of the Polish food sector are now strongly connected with the international market and capital, which have also recognized it as a prospective sector whose development is worthy of investment.

#### ***An analysis of the degree of the pro-product orientation implementation in the process of the studied enterprises' development***

Possessing an appropriate product portfolio is a significant condition of the functioning of every enterprise. A good competitive position and development are conducted by having products in various phases of life. It means that in a proper time cycle an enterprise should introduce new products or services to its portfolio, that is implement the pro-product orientation of development. The development is implemented in two directions: through diversification or specialisation in the product area. Diversification consists in the extension of the range of goods and services produced and offering it in new sectors and industries, whereas specialisation in manufacturing a similar range of goods and services to a large scale and with maintaining its frequent modernisation and innovative changes (Romanowska, 2009).

The pro-product orientation operates to the benefit of one of the two most important directions of enterprise development according to Ansoff's model. It consists in the expansion of the company's portfolio of goods and services, mainly through the aforementioned diversification and specialisation.

- For the needs of the analysis of the product portfolios of the studied enterprises, in order to define the level of the realisation of their development in the product area, the following assumptions and markings were adopted:

- I – stands for an enterprise specialised in one sector, namely manufacturing one range of goods or services or a few ranges within one sector.

- II – stands for an enterprise specialised in one industry, that is producing the range including goods or services within a few or all sectors of one industry.

- III – stands for an enterprise diversified in a related way, namely producing the range of goods or services within a few related industries.

- IV – stands for a conglomerate, that is an enterprise operating in a few non-related industries.

The classification of the surveyed enterprises to specific groups was made based on the annual financial reports from 2010-2018, annals of the WSE, annual reports of the management boards of the surveyed enterprises, and information posted online. The results of the research conducted in this scope are presented in Tables 3–7.

*Table 3*

**An overview of the degree of the product-oriented development realised in the construction sector companies during the years 2010–2018**

No.	Company	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	BUDIMEX	I	II	II	II	II	III	III	III	III
2	DECORA	I	I	I	I	II	II	I	I	I
3	ELBUDOWA	I	I	I	I	II	II	II	II	II
4	ELKOP	I	I	I	I	I	I	I	I	I
5	ENAP	I	I	II	II	II	II	II	II	II
6	ERBUD	I	I	I	II	II	II	II	II	II
7	ES-SYSTEM	II	II	II	II	II	III	III	III	III
8	FERRO	I	I	I	I	II	II	II	II	II
9	HERKULES	II	II	II	II	II	II	II	II	II
10	INSTALKRK	I	I	I	I	I	I	I	I	I
11	LENTEX	I	I	I	II	II	II	II	I	I
12	MOSTALPLC	I	I	I	I	I	I	I	I	I
13	MOSTALWAR	II	II	II	I	I	I	II	II	I
14	MOSTALZAB	I	I	I	I	I	I	I	I	I
15	PBG	I	I	II	II	II	II	II	II	II
16	PEMUG	I	I	I	I	I	I	I	I	I
17	POLIMEXMS	II	II	III	III	IV	IV	III	III	III
18	PROCHEM	I	I	I	II	II	II	II	III	III
19	PROJPRZEM	II	II	II	II	II	III	III	III	III
20	SELENA	II	II	II	II	III	III	II	II	II
21	ULMA	I	I	I	I	I	I	II	II	II

*Source: Author's own study.*

What results from the data included in Table 3 is that the construction sector is varied in the area of changes in the product portfolio. There are companies here which strongly realise development towards diversification (BUDIMEX, PROCHEM), companies with a little weaker degree of the realisation of this direction of development (ELBUDOWA, ENAP, ERBUD, ES-SYSTEM, FERRO, PBG, PROJPRZEM, ULMA), and also companies which in the analysed period both extended and limited their product portfolio (DECORA, LENTEX, MOSTALWAR, POLIMEXMS, SELENA). A separate group are companies which were characterised by stagnation within this scope (ELKOP, HERKULES, INSTALKRK, MOSTALPLC, MOSTALZAB, PEMUG). In this sector there are no companies which only limited their product portfolio in the analysed period.

Table 4

**An overview of the degree of the product-oriented development realised  
in the electromechanical sector companies during the years 2010–2018**

No.	Company	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	AMICA	II	II	II	II	II	II	III	III	III
2	APATOR	II	II	II	II	II	III	III	III	III
3	HYDROTOR	II	II	II	II	II	II	II	II	II
4	INTROL	II	II	II	II	II	II	II	II	II
5	LENA	II	II	III	III	III	III	IV	IV	IV
6	MANGATA	II	II	II	II	III	III	III	III	III
7	PATENTUS	II	II	III	III	III	III	III	III	IV
8	RAFAKO	II	II	II	II	II	II	II	II	II
9	RELPOL	II	II	II	II	II	II	II	II	II
10	REMAK	II	II	II	II	II	II	II	III	III
11	WIELTON	II	II	II	III	III	III	III	III	III
12	ZPUE	II	II	II	II	II	II	II	II	II

*Source: Author's own study.*

The electromechanical sector companies are divided into two groups. The first one are those which in the studied period extended their product portfolio (AMICA, APATOR, LENA, MANGATA, PATENTUS, REMAK, WIELTON), the other one includes companies which did not change their product portfolio significantly (HYDROTOR, INTROL, RAFAKO, RELPOL, ZPUE). In this sector no companies which would limit the content of their product portfolio were recorded.

Table 5

**An overview of the degree of the product-oriented development realised  
in the IT sector companies during the years 2010–2018**

No.	Company	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	ASSECOPOL	I	I	II	II	II	II	II	II	II
2	COMARCH	II	II	II	II	II	II	II	II	II
3	ELZAB	I	I	II	II	II	III	II	II	II
4	IFIRMA	I	I	II	II	II	II	II	III	III
5	OPTEAM	I	I	I	I	II	II	I	I	I
6	PROCAD	I	I	I	I	I	II	II	II	II
7	SIMPLE	I	I	I	I	I	I	I	I	I
8	SYGNITY	I	I	I	II	II	II	II	II	II
9	TALEX	I	I	I	I	I	I	I	I	I
10	WASKO	I	I	II	II	II	II	II	II	II

*Source: Author's own study.*

The data included in Table 5 show that in the IT sector 5 companies were recorded which in the years 2010–2018 extended their product portfolio (ASSECOPOL, IFIRMA, PROCAD, SIGNITY, WASKO), 2 companies which

extended and limited that portfolio at the time (ELZAB, OPTTEAM) and 3 companies in which no significant changes in the portfolio were observed (COMARCH, SIMPLE, TALEX). Similarly as in the case of the other sectors, none of the companies limited themselves only to decreasing the volume of their product portfolio.

*Table 6*

**An overview of the degree of the product-oriented development realised in the metallurgical sector companies during the years 2010–2018**

No.	Company	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	ALCHEMIA	III	III	III	III	IV	IV	III	III	III
2	BORYSZEW	II	III	III	III	IV	IV	IV	IV	IV
3	COGNOR	III	III	III	III	III	III	III	IV	IV
4	FASING	I	I	I	I	I	I	I	I	I
5	FERRUM	I	I	I	I	II	II	II	II	II
6	HUTMEN	II	II	II	II	II	II	III	III	III
7	IMPEXMET	II	II	III	III	III	III	III	III	III
8	KETY	II	III	III	III	III	IV	IV	IV	IV
9	KGHM	II	II	II	III	III	III	IV	IV	IV
10	MENNICA	II	II	II	III	III	III	III	III	III
11	ODLEWNIE	III	III	III	III	III	IV	IV	IV	IV
12	PERMEDIA	II	II	II	II	II	II	II	II	II
13	STALPROD	III	III	III	III	III	IV	IV	IV	IV

*Source: Author's own study.*

Table 6 presents the metallurgical sector companies. From the presentation it results that the majority of the companies of this sector extended their product portfolio in the analysed period, among them some did it significantly (BORYSZEW, KĘTY, KGHM), others to a little smaller extent (COGNOR, FERRUM, HUTMEN, IMPEXMET, MENNICA, ODLEWNIE, STALPROD). Apart from them, one of the companies (ALCHEMIA) marked changes, both positive and negative, in their product portfolio, and the remaining ones were characterised by the lack of substantial changes (FASING, PERMEDIA). No companies which would only limit their portfolio were recorded.

*Table 7*

**An overview of the degree of the product-oriented development realised in the food sector companies during the years 2010–2018**

No	Company	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	AMBRA	I	I	II	II	II	II	II	III	III
2	GOBARTO	I	I	I	II	II	II	II	III	III
3	INDYKPOL	I	II	II	II	II	II	III	III	III
4	KERNEL	II	II	II	II	II	II	II	II	II
5	KSGAGRO	II	II	II	II	II	II	II	II	II
6	KRUSZWICA	I	I	I	I	I	I	I	I	I

No	Company	2010	2011	2012	2013	2014	2015	2016	2017	2018
7	MILKILAND	II	II	II	II	II	II	II	II	II
8	PEPEES	II	II	II	II	II	II	II	II	II
9	WAWEL	I	I	I	I	I	I	I	I	I
10	ZYWIEC	II	II	II	II	II	II	II	II	II

*Source: Author's own study.*

What results from the data in Table 7 is that in the food industry 3 companies in the period of the research extended their product portfolio (AMBRA, GOBARTO, INDYKPOL), and no company limited it. It means that the other companies of the sector did not mark any significant changes in their portfolios. Those were: KERNEL, KSGAGRO, KRUSZWICA, MILKILAND, PEPEES, WAWEL, ŻYWIEC.

**Conclusion.** Table 8 summarizes the results of the study of the companies from the point of view of the scope of changes in their product portfolios, assuming, as the criterion of their division, the character of the changes observed during the research period.

*Table 8*

### **Changes in the product portfolios of the enterprises in the years 2010–2018**

Categories of change	Number of enterprises	Percent of enterprises
Extension of the portfolio	35	53
Limitation of the portfolio	0	0
Extension and limitation of the portfolio	8	12
No significant changes in the portfolio	23	35

*Source: Author's own study.*

What results from the data included in Table 8 is that the majority of the examined enterprises (35 companies, i.e. 53%) in the studied period extended their product portfolio, which suggests that in the subjective period they realised enterprise development in the area of product towards diversification. At the same time, 35% of the total number of enterprises (i.e. 23 companies) did not make any substantial changes within that scope. The fact proves that the enterprises probably did not realise development in the area of product as their strategic goal in the studied period. Among the researched companies, 12% of the enterprises (i.e. 8 companies) made both the extension and limitation of the portfolio of their products, which means that periodically they realised development both towards diversification and specialisation in terms of product. Among them there are companies from three studied sectors only (Metallurgical, IT, Construction). An important fact which is worth noting is that among the studied companies there were none which would be characterised by the limitation of their portfolio only, that is a permanent realisation of development towards specialisation.

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