**Peer-reviewed and Open access journal**
ISSN: 1804-5006 | www.academicpublishingplatforms.com
*The primary version of the journal is the on-line version*

**BEH - Business and Economic Horizons**
Volume 10 | Issue 3 | 2014 | pp.165-176
DOI: http://dx.doi.org/10.15208/beh.2014.14

# Economic value added and competitive position of enterprises: Case research

***Marlena Grabowska***
*Faculty of Management, Częstochowa University of Technology*
*Armii Krajowej 19 B, 42-200 Czestochowa, Poland*
*e-mail: anelram@wp.pl*

The principal goal of this study is to provide economic analysis of value added in the context of problems of competitive position in enterprises. A relationship presented in the literature that occurs between competitive position in the enterprise and its ability to generate value added. The selected tools for measurement of competitive position in the enterprise were presented, among which the authors included enterprise concentration rate and economic value added. EVA concept was also characterized. The empirical investigations focused on the companies listed in the Warsaw Stock Exchange. Based on the empirical analysis, the study found a significant difference between the place in the ranking of the value added and the degree of enterprise's participation in the market.

**JEL Classifications:** D40, D46

**Keywords:** Competitive position, value added, EVA

## Introduction

The enterprises which operate in the market take a particular competitive position which, with respect to other entities, might be either favourable or unfavourable, thus representing the strength of a particular enterprise compared to their rivals. Evaluation of competitive position should be preceded with measurement which relates to both the enterprise and its market rivals. There is a widespread view that exists in the literature that the measures which determine basic parameters of competitive position should include such variables as relative share in the market, financial situation of the enterprise or the enterprise value (e.g. Otola, 2013). Consequently, competitive position of the enterprise is determined through its share in the market and measurement of its financial strength.

Stankiewicz (2002) emphasizes that a positive competitive position can be achieved only by the entities which, in long-term perspective, are able to generate value added. This view is consistent with the commonly accepted strategic, long-term enterprise's striving for maximization of its value (see e.g. Wildemann, 2007; Palli, 2004). The basis for this formulation of the goal of operation was assumptions developed by A. Rappaport (1986) in the eighties of the 20th century, who argued that any enterprise's activities should be oriented towards achievement of maximum shareholder value. The dynamic development of capital markets, their liberalization, openness of the economies and expansion of private capital as well as substantial development of the sector of new technologies contributed to viewing to maximization of the enterprise value as an overriding goal of enterprise operation. Therefore, it can be indicated that competitive position results from competition considered against the results achieved by competitors, being reflected in the value added by a particular entity.

Furthermore, building competitive advantage in the enterprise consists in connecting the sources of this advantage in order to increase enterprise's

competencies to create value added while reducing and limiting competencies for generation of value by rivals (Bratnicki, 2001). It should be emphasized that, in the context of creating value added, the sources of competitive advantage differ from each other depending on the type of approach to strategic management (see e.g.: Teece et al, 1997; Eisenhardt and Martin, 2000; Barney, 1991; Krupski, 2011; Dyer and Singh, 1998). Creating value added might occur through:

- cost minimization and product diversification: positional approach;
- combination of unique resources which are difficult to be copied by competitors: resource-based approach;
- reconfiguration and recovery of dynamic abilities: dynamic abilities approach;
- cooperation and teamwork, achievement of synergy effect: network approach;
- using opportunities present in the environment (discovered) and inside the enterprise (created) - non-classical resource-based approach.

However, it should be emphasized that creation of value integrates cooperative behaviours within the value-creating processes and transfers competitive behaviours into competing for acquisition of the generated value added (Ziółkowska, 2013).

## Selected tools for measurement of competitive position in the enterprise

According to a study by Ph. Kotler (1994), it can be indicated that one of the methods of measurement of participation in the market is determination of the relation of the sales in the enterprise to total sales in the particular market. J. Duraj (1993) terms this measure as a rate of concentration of the enterprises, pointing at the same time that this is the simplest measure of concentration of enterprises. This method is one of the example measures of concentration (see e.g. Spodarev, 2008), that expresses the relative share of production of a particular enterprise in overall production of enterprises acting in a particular industry. This index can be used for ordering of the enterprises from the smallest to the biggest in terms of share in revenues on sales in a specific sector. Therefore, the obtained percentage value demonstrates the scale of participation of the revenues on sales generated by a particular entity in combined revenues in the market where the enterprise sells their goods (services).

When attempting to synthetically characterize the parameters of competitive position in an enterprise, with assumption that the competitive position in the enterprise results from competition reflected by additional value generated in the enterprise, it can be considered in e.g. form of measure of economic value added (EVA). Eva index describes additional economic value which is created by the enterprise (Giebel, 2010). In these terms, EVA corresponds to the increase in the enterprise value over a specific period, but it should not be understood to mean a total value created by a particular entity (Weber et al., 2004; Gladen 2008; Stiefl und von Westerholt 2008). The proposed measure reflects the difference between actual rate of return on the capital invested and minimum rate of return i.e. cost of foreign capital and equity (Cwynar, Cwynar, 2000). EVA is an indicator which refers to a specific period and defines the difference between the financial operating result (after taxation) and total costs of the capital invested (Pape, 2010). According to G.B. Stewart (1991), the creator of the economic concept of value added, the benefits of using this method result from reflecting not only the value but also performance of a specific enterprise.

EVA points to the sources of values in individual periods i.e. range between the obtained return on capital and its cost and value of the capital involved in the beginning of the period (Zarzecki 1999). Value of this index indicates whether the

enterprise generates the profits that exceed the cost of the capital involved. Therefore, the EVA value might indicate the method of management of the capital in a particular enterprise. Furthermore, this index also includes both operating and financial costs of business activities.

Reaching positive profitability ratio represents the condition which is necessary but insufficient to create additional value in the enterprise. Negative level of EVA measure means that the rate of return is lower than the expected. In order to create additional value, the actual profitability should exceed minimal rate of return expected by the shareholders and creditors. M. Siudak argues that quantification of the effects of management with the value by means of economic value added is connected with exceeding the total cost of this capital by the operating profitability of the capital invested. Achievement of this result represents the source of creation of value added in the enterprise (Siudak 2001).

However, it should be emphasized that the measure of the economic value added should not be used for direct analysis between enterprises or sectors. Comparison of two or more enterprises in the aspect of value management requires using the indices which reflect creation of value expressed in relative terms. Comparison of competitive positions of different enterprises is justified in the case of determination of common base value of combined capital invested in the enterprise. Thus, the index of economic rate of return is obtained; it demonstrates effectiveness of using the enterprise's capital in a particular time period. This measure expresses the number of EVA units per unit of capital in the enterprise, thus reflecting the effectiveness of the capital invested with respect to creation of value added in the enterprise. The higher the level of the measure discussed, the lower capital can be invested by the enterprise in order to obtain the value added. Decreased value of this index means the necessity of higher capital outlays in order to generate the value added. The higher value of the quotient, the greater (higher) competitive position of the entity. Therefore, comparison of the generated value added, reflected by the EVA measure, to the capital invested, can illustrate (in synthetic terms) competitive position of the enterprise.

## Empirical examinations of selected aspects of enterprise competitiveness

Empirical examinations covered the companies listed in the Warsaw Stock Exchange from the following industries: food industry, services (other); electrical machinery industry; IT, developers, construction. The choice of the sectors was affected by the number of entities that belonged to a particular sector. The criterion of selection was the number of at least 25 companies in a particular sector. The numerical data were analysed for the year 2012.

The considerations took into consideration the share of revenues on sales in a particular entity in revenues in total in the entire sector. The combined revenues in the entire market were represented by the mathematical sum of revenues on sales in 2012 in individual companies included in a sector. Furthermore, the study used the relative measure defined by the ratio of the economic value added (EVA) in an entity to total capital invested (EVA/IC). Tables 1 to 6 present empirical data that characterize the variables discussed in the entities studied.

Observation of the data contained in Table 1 reveals that only three entities in the sector of food industry exceeded 10% share in total revenues in the market. The predominant value of sales, with nearly 23%, was reported by ŻYWIEC. Further, the substantial share in sales in the sector analysed was found for KRUSZWICA (over 17%) and DUDA (over 13%). In 10 in 25 entities studied, revenue on sales did not exceed 1% share in the revenues of the entire food sector.

The measure of economic value added (EVA) had negative values in the most of the entities analysed. This state can be considered as generating lower rate of return on capital invested than the expected minimum rate of return i.e. cost of foreign capital and equity. In seven of the analysed companies, a positive difference was recorded between the actual rate of return on the capital invested and the minimum rate of return. The entities that generated value added included: ASTARTA, IMCSA, INVFRICA, KANIA, OVOSTAR, WAWEL, ŻYWIEC. Comparison of the economic value added to the total of value of equity and foreign capital, reveals that, in 2012 in the sector of food industry, the above companies used the total capital invested the most effectively. In other companies, the EVA/IC index showed negative values, thus meaning the negative number of EVA units per unit of the capital invested.

Comparison of the classification of the enterprises analysed in terms of selected parameters of competitiveness demonstrates that a lead place in the ranking of the structure of sales in the sector discussed is not synonymous with generation of high value added. With exception of ŻYWIEC, the enterprises that reached positive level of EVA had also very low share in revenues on sales in the whole sector. It can be also demonstrated that the entities that dominated in overall sales of the market measured generated lower rate of return on the capital invested than expected, minimum rate of return, i.e. costs of foreign capital and equity.

In the electrical machinery sector (see Table 2) there was no entity which was clearly dominant in the structure of sales in the whole market. The revenues on sales in four companies were at the level of 11% to nearly 19% in the sector. In the most of enterprises in the electrical machinery sector sales exceeded 1% of revenues in the whole sector.

In eight companies studied (AMICA, APATOR, BUMECH, FAMUR, INTROL, RELPOL, ZAMET, ZPUE), index EVA had positive values. Other entities generated lower than expected rate of return on the capital invested. A positive relation of economic value added to the capital invested ranged in the above companies from 0.9% to 27.9%. No substantial relationship between high places in ranking of the structure of sales and high value of EVA/IC relation was observed in the sector.

Another sector analysed in terms of the aspects of competitiveness of the enterprise was sector classified in the Warsaw Stock Exchange as other services (see Table 3). 30 companies were present in this sector. A predominant share in the revenues on sales was reported by the ARCTIC enterprise (nearly 32% of revenues in the entire market). Considerable participation in these revenues (over 17%) was found in IMPEL. In other twenty eight entities revenues on sales did not exceed 7% of revenues in the whole analysed market.

In nine companies studied rate of return was generated higher than expected. However, a negative difference between real rate of return on the capital invested and minimal required rate of return, i.e. cost of foreign capital and equity was observed. The predominant value of EVA/IC relationship was reported in EUCO, INTEGER i BENEFIT. The economic value added in these entities ranged in 2012 from over 20% to nearly 36% of the capital invested. Furthermore, it should be indicated that the companies which reached high value of EVA/IC relation in the sector studied did not have a considerable share in the structure of sales in the sector studied.

Table 4 presents the data that characterize economic value added and structure of sales in the IT sector. An undisputed leader in revenues on sales in this sector was ASSECO POLAND. The company generated over 50% of revenues on sales in the whole market. Another company in the ranking, COMARCH, reached the level of only over 8%. The share of revenues on sales in the most of other entities was at the level of around 1% of the structure of sales in the IT sector.

The measure of economic value added (EVA) had the negative values in the majority of the entities analysed. Comparison of the EVA value to the total of capital invested reveals that, in 2012 in the IT sector, only four companies reached higher than expected rate of return (SIMPLE, OPTIMUST, MACROSFT, PC_GUARD). The economic value added generated in these enterprises ranged from 2.9% to 9% of the value of capital invested. It should be emphasized that dominance of the sector of IT in the structure of sales was not analogous with reaching high economic value added and opportunities for generation of this value on the capital invested.

Another market discussed is the sector of developers where one could point at three distinguishing entities that have considerable share in the structure of sales. These included: DOMDEVEL, GTC, ECHO. Their share in revenues on sales was over 10%. However, a half of the entities studied did not generate the sales higher than 2% of the whole market.

A characteristic feature of the sector discussed was the lack of entities with positive economic value added. The rate of return on capital was lower than expected in all the entities analysed. Therefore, EVA/IC ratio in all the companies from the developers' sector showed negative values. This state means a percentage of the value lost with respect to the capital invested.

Table 6 presents the parameters of competitiveness in the construction sector, the most numerous in the Warsaw Stock Exchange. A leader in the ranking of the structure of sales in this sector was BUDIMEX, reaching almost 25% share in the revenues on sales. Furthermore, this relation in POLIMEX and MOSTOSTAL WARSAWA was over 10%. In 22 entities, this value was lower than 1%.

The economic value added was generated in 5 among 36 companies with the highest EVA observed in BUDIMEX. However, the highest value of economic relation of value added to the capital invested was observed in ELKOP. This index was in this case 42.3%. However, the company took the last place in the ranking of the structure of sales in the sector. Similar tendency concerned WADEX, which was 34th in the ranking of the structure of sales, whereas it belonged to the leaders in generating the economic value added. Therefore, a reversed relationship between the share in the market and ability to generate economic value added can be observed.

## Conclusion

The theoretical investigations carried out in this study lead to the conclusion that maximization of economic benefits obtained through competition can be associated with potential for creating value for shareholders in the enterprise. On the one hand, opportunities for creating value added, i.e. taking actions in order to meet the requirements of the whole group of the interested parties might suggest that the entity is competitive with respect to other market participants. High value generated in the enterprise is therefore the manifestation of competitiveness of the enterprise with respect to its shareholders. On the other hand, being competitive represents the opportunity for creating value.

The results obtained in the empirical analysis demonstrated the presence of a few predominant entities in revenues on sales and many entities that had similar share in the market in the markets studied. A substantial difference between the place in the ranking in terms of value added and the degree of share of the enterprise in sales in the sector was demonstrated. Furthermore, the positive value of EVA relation to the capital invested was not connected with high share in revenues on sales in the sector. The above interpretation can point to the negative relationship between ability of a particular entity to generate value added and its market share.

Therefore, it is essential to carry out further analysis that explains the causes of this phenomenon.

## References


Barney, J.B., 1991. "Firm Resources and Sustained Competitive Advantage", Journal of Management, Vol. 17, pp.99-120.

Bratnicki, M. 2001. Pod znakiem przewag konkurencyjnych. Kilka uwag o tworzeniu strategii organizacji w nowej ekonomii, in: Moszkowicz, M. (Ed.). Strategie i konkurencyjność przedsiębiorstw po dziesięciu latach transformacji, Materiały II Ogólnopolskiej Konferencji Naukowej, Polanica Zdrój, p.184.

Cwynar, W., Cwynar, A., 2000. „Jak mierzyć efekt kreacji wartości dla właścicieli przedsiębiorstwa – przekrój dostępnych możliwości", Controlling i Rachunkowość Zarządcza, Vol. 7.

Duraj, J., 1993. Analiza ekonomiczna przedsiębiorstwa, PWE, Warszawa, p. 131.

Dyer, J., Singh, H., 1998. "The Relational View: Cooperative Strategy and Sources of Interogranizational Competitive Advantage", The Academy of Management Review, Vol. 23, pp.660-679.

Eisenhardt, K.M., Martin, J.A., 2000. "Dynamic Capabilities: What Are They?", Strategic Management Journal, Vol. 21, pp. 1105-112.

Giebel, M., 2010. Wertsteigerung durch Qualitätsmanagement. Entwicklung eines Modells zur Beschreibung der Wirkmechanismen und eines Vorgehenskonzepts zu dessen Einführung, Unidruckerei der Universität Kassel, Kassel, p. 27.

Gladen, G., 2008. Performance Measurement: Controlling mit Kennzahlen, 4.Aufl., Wiesbaden, p. 146.

Kotler, Ph., 1994. Marketing. Analiza, planowanie, wdrażanie, kontrola, Wyd. Gebethner i Ska., Warszawa, p. 684.

Krupski, R., 2011. Orientacja zasobowa w badaniach empirycznych. Identyfikacja horyzontu planowania rynkowych i zasobowych wielkości strategicznych, Wałbrzyska wyższa Szkoła Zarządzania i Przedsiębiorczości, Wałbrzych 2011, p.15

Otola, I., 2013. Procesy zarządzania przedsiębiorstwami a konkurencyjność w warunkach zagrożonego rynku, Wydawnictwo Politechniki Częstochowskiej, Częstochowa, p. 120.

Palli, M.C., 2004. Wertorientierte Unternehmensführung. Konzeption und empirische Untersuchung zur Ausrichtung der Unternehmung auf Kapitalmarkt. Deutscher Universität Verlag. Wiesbaden. p. 11.

Pape, U., 2009.Wertorientierte Unternehmensführung, 4. Aufl., Verlag Wissenschaft & Praxis, Sternenfels, p. 134

Rappaport, A., 1986. Creating Shareholder Value. The New Standard for Business Performance. The Free Press. New York 1986. p. 104

Siudak, M., 2001. Zarządzanie wartością przedsiębiorstwa, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, p. 64.

Spodarev, E., 2008. Statistik I, Vorlesungsskript Universität Ulm, Ulm, p. 20.

Stankiewicz, M.J., 2002. Konkurencyjność przedsiębiorstwa. Budowanie konkurencyjności przedsiębiorstwa w warunkach globalizacji, TNOiK, Toruń, pp.297- 310.

Stiefl, J., von Westerholt, K., 2008. Wertorientiertes Management: Wie der Unternehmenswert gesteigert werden kann, München, pp.79-80.

Stewart, G.B., 1991. The Quest for Value. A. Guide for Senior Managers, Harper-Business, p. 4.

Teece, D., Pisano, G., Shuen, A., 1997. "Dynamic Capabilities and Strategic", Strategic Management Journal, Vol. 18, pp. 31-51.

Weber, J., Bramsemann, U., Heineke, C., Hirsch, B., 2004. Wertorientierte Unternehmenssteuerung,

Konzepte – Implementierung – Praxisstatements, Gabler, Wiesbaden, p. 116.

Wildeman, H. 2007. Wertsteigerung von Unternehmen Strategien und Methoden zur erfolgreichen Unternehmensführung. TCW Verlag. München. p. 8.

Zarzecki, D., 1999. Metody wyceny przedsiębiorstw, Fundacja Rozwoju Rachunkowości w Polsce, Warszawa, p. 131.

Ziólkowska, B., 2013. Zarządzanie procesami tworzenia wartości w przedsiębiorstwie. Perspektywa wizualizacji, Wyd. P.Cz., Częstochowa, p.7.

## Appendix

TABLE 1. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF FOOD INDUSTRY

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| AGROPUBL | 0.64% | 20 | -9007.2 | 15 | -1.60% | 10 |
| AGROWILL | 0.55% | 21 | -8481.7 | 14 | -3.40% | 14 |
| ASTARTA | 2.21% | 12 | 65857 | 2 | 3.40% | 7 |
| COLIAN | 4.04% | 6 | -25851 | 21 | -3.90% | 15 |
| DUDA | 13.39% | 3 | -49764 | 25 | -9.40% | 22 |
| GRAAL | 4.04% | 6 | -10343.9 | 16 | -3.20% | 12 |
| IMCSA | 0.69% | 19 | 31167.3 | 5 | 7.30% | 6 |
| INDYKPOL | 6.28% | 5 | -19610.3 | 19 | -6.40% | 20 |
| INVFRICA | 0.02% | 25 | 3329.7 | 7 | 73.40% | 2 |
| KANIA | 2.45% | 11 | 11505.4 | 6 | 84.30% | 1 |
| KOFOLA | 6.51% | 4 | -23784.5 | 20 | -3.30% | 13 |
| KRUSZWIC | 17.23% | 2 | -36897.3 | 23 | -5.60% | 18 |
| MAKARONY | 0.84% | 16 | -5920 | 12 | -6.50% | 21 |
| MIESZKO | 3.06% | 10 | -2716.5 | 9 | -0.60% | 8 |
| MILKI | 1.83% | 14 | -13979.5 | 18 | -1.40% | 9 |
| MISPOL | 1.45% | 15 | -45240.1 | 24 | -40.50% | 24 |
| OVOSTAR | 0.45% | 23 | 42714.8 | 3 | 14.90% | 4 |
| PAMAPOL | 3.92% | 8 | -10695 | 17 | -4.50% | 16 |
| PBSFINSA | 0.07% | 24 | -5901.6 | 11 | -21.00% | 23 |
| PEPEES | 0.82% | 17 | -6706.9 | 13 | -6.20% | 19 |
| SEKO | 0.80% | 18 | -2682.7 | 8 | -4.90% | 17 |
| WAWEL | 3.54% | 9 | 33482.8 | 4 | 12.70% | 5 |
| WILBO | 0.49% | 22 | -31285.8 | 22 | -80.90% | 25 |
| ZPC_OTM | 2.01% | 13 | -4633.3 | 10 | -2.70% | 11 |
| ZYWIEC | 22.69% | 1 | 271073 | 1 | 23.10% | 3 |

Source: Author's own study based on the data from www.notoria.pl and www.vba.pl,
Note: Data from 2012

TABLE 2. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF ELECTRICAL MACHINERY INDUSTRY

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| AMICA | 14.20% | 2 | 3550.7 | 6 | 0.90% | 8 |
| APATOR | 6.07% | 6 | 66137.4 | 2 | 22.50% | 2 |
| APLISENS | 0.63% | 23 | -215.8 | 9 | -0.20% | 9 |
| BUMECH | 0.98% | 17 | 6485.8 | 5 | 9.00% | 3 |
| ENERGOIN | 3.03% | 10 | -464.8 | 10 | -0.30% | 10 |
| ESSYSTEM | 1.54% | 12 | -18437.4 | 22 | -11.70% | 23 |
| FAMUR | 13.35% | 3 | 202963 | 1 | 27.90% | 1 |
| HYDROTOR | 0.80% | 21 | -5587.4 | 19 | -6.20% | 18 |
| INTROL | 3.32% | 9 | 3105.2 | 7 | 2.60% | 6 |
| KOPEX | 18.45% | 1 | -283740.9 | 26 | -10.60% | 22 |

TABLE 2. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF ELECTRICAL MACHINERY INDUSTRY

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| LENA | 0.93% | 20 | -3068.2 | 14 | -3.80% | 13 |
| MAKRUM | 0.76% | 22 | -2696.2 | 12 | -3.10% | 11 |
| MÓJ | 0.20% | 26 | -5000.3 | 18 | -13.60% | 24 |
| PATENTUS | 1.00% | 16 | -4308.2 | 16 | -4.60% | 16 |
| POLNA | 0.31% | 25 | -3279.1 | 15 | -8.10% | 20 |
| RAFAKO | 11.72% | 4 | -78436.4 | 25 | -15.00% | 25 |
| RAFAMET | 0.97% | 18 | -9736.7 | 20 | -8.60% | 21 |
| RELPOL | 1.06% | 15 | 1201.4 | 8 | 2.00% | 7 |
| REMAK | 3.73% | 8 | -21265.3 | 23 | -43.50% | 26 |
| SONEL | 0.46% | 24 | -2755.1 | 13 | -4.40% | 15 |
| URSUS | 2.06% | 11 | -4712.5 | 17 | -5.40% | 17 |
| WESTA | 0.97% | 18 | -50322 | 24 | -7.70% | 19 |
| ZAMET | 1.54% | 12 | 7234.4 | 4 | 5.70% | 4 |
| ZELMER | 6.69% | 5 | -14607.7 | 21 | -3.70% | 12 |
| ZPUE | 4.12% | 7 | 10239.1 | 3 | 5.50% | 5 |
| ZREMBCH | 1.13% | 14 | -890.6 | 11 | -3.80% | 14 |

Source: Author's own study based on the data from www.notoria.pl and www.vba.pl,
Note: Data from 2012

TABLE 3. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF OTHER SERVICES

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| ARCTIC | 31.78% | 1 | -69858.7 | 30 | -5.30% | 15 |
| ARTERIA | 1.57% | 16 | 3701 | 6 | 6.40% | 7 |
| ATLANTIS | 0.09% | 28 | 3321.8 | 7 | 5.00% | 8 |
| ATREM | 1.58% | 15 | -21238.5 | 26 | -24.80% | 27 |
| AVIA | 6.55% | 3 | 13300.8 | 4 | 7.60% | 6 |
| BENEFIT | 3.91% | 7 | 16064.8 | 3 | 20.10% | 3 |
| BSCDRUK | 1.68% | 13 | -7423.2 | 18 | -4.30% | 14 |
| CHEMOSER | 1.61% | 14 | -6177.5 | 16 | -10.40% | 18 |
| DGA | 0.25% | 25 | -5545.2 | 15 | -20.30% | 25 |
| DRAGOWSK | 0.19% | 26 | -5276.9 | 13 | -24.80% | 28 |
| DROP | 5.47% | 5 | -12750.7 | 22 | -18.60% | 23 |
| EKO_EXP | 0.14% | 27 | -1859.7 | 12 | -6.50% | 16 |
| EMC | 1.92% | 12 | -5485.8 | 14 | -6.60% | 17 |
| ENELMED | 2.21% | 10 | -15304.4 | 23 | -18.70% | 24 |
| EUCO | 0.56% | 21 | 7785.5 | 5 | 35.60% | 1 |
| FON | 0.00% | 30 | -9451 | 21 | -13.40% | 20 |
| FORENGRO | 1.18% | 17 | 25120.6 | 2 | 8.10% | 5 |
| GREENECO | 0.58% | 20 | 1.5 | 9 | 0.10% | 9 |
| IMPEL | 17.74% | 2 | -7991.2 | 19 | -2.10% | 11 |
| INTEGER | 3.44% | 8 | 36141.3 | 1 | 20.30% | 2 |
| INVESTCO | 0.03% | 29 | -6426.4 | 17 | -21.20% | 26 |
| MARVIPOL | 4.33% | 6 | -16506.6 | 25 | -3.10% | 13 |

TABLE 3. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF OTHER SERVICES

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| PCC | 2.18% | 11 | -26235.3 | 27 | -27.70% | 29 |
| PEKAES | 6.39% | 4 | -42817.1 | 29 | -13.30% | 19 |
| POLMED | 0.56% | 21 | -9130.4 | 20 | -17.30% | 22 |
| STALEXP | 2.27% | 9 | -28783.9 | 28 | -2.50% | 12 |
| TRANSPOL | 0.60% | 19 | -51.9 | 10 | -0.30% | 10 |
| TRAVEL | 0.26% | 24 | -1711.7 | 11 | -48.00% | 30 |
| VOTUM | 0.64% | 18 | 2420.3 | 8 | 11.80% | 4 |
| ZASTAL | 0.30% | 23 | -15503.8 | 24 | -14.40% | 21 |

Source: Author's own study based on the data from www.notoria.pl and www.vba.pl,
Note: Data from 2012

TABLE 4. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF INFORMATION TECHNOLOGY

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| ARCUS | 1.71% | 10 | -10309.8 | 17 | -15.00% | 22 |
| ASSECOBS | 1.44% | 13 | -10052.9 | 16 | -3.80% | 9 |
| ASSECOP | 51.15% | 1 | -144942.5 | 26 | -2.50% | 8 |
| ASSECOSE | 4.28% | 6 | -44196.5 | 23 | -6.20% | 14 |
| ASSECOSL | 1.24% | 15 | -972.3 | 7 | -0.20% | 5 |
| ATM | 1.69% | 11 | -17779.7 | 20 | -5.20% | 11 |
| B3SYSTEM | 1.27% | 14 | -8450.4 | 15 | -41.20% | 25 |
| CALATRAV | 0.14% | 25 | -260029.6 | 27 | -160.00% | 26 |
| COMARCH | 8.18% | 2 | -58591.5 | 25 | -7.90% | 16 |
| COMP_W | 3.62% | 7 | -53162.6 | 24 | -12.50% | 21 |
| ELZAB | 0.67% | 17 | -2049.2 | 11 | -4.10% | 10 |
| INFOVIDE | 1.82% | 9 | -21303 | 22 | -11.20% | 20 |
| LSISOFT | 0.24% | 23 | -1257.4 | 8 | -5.80% | 13 |
| MACROSFT | 0.50% | 19 | 2589.5 | 2 | 8.70% | 3 |
| NTT | 5.93% | 3 | -13122.5 | 19 | -10.60% | 19 |
| ONE2ONE | 0.00% | 27 | -18481.5 | 21 | -605.60% | 27 |
| OPTEAM | 0.56% | 18 | -655.8 | 6 | -2.20% | 6 |
| OPTIMUST | 1.52% | 12 | 11726.1 | 1 | 9.00% | 2 |
| PC_GUARD | 4.81% | 4 | 1793.5 | 4 | 2.90% | 4 |
| POWERMED | 0.09% | 26 | -239.1 | 5 | -5.60% | 12 |
| PROCAD | 0.40% | 20 | -1478 | 9 | -10.50% | 18 |
| QUANTUM | 0.18% | 24 | -3963.1 | 13 | -25.50% | 24 |
| QUMAK | 4.46% | 5 | -2241.4 | 12 | -2.50% | 7 |
| SIMPLE | 0.29% | 21 | 1800.7 | 3 | 12.10% | 1 |
| TALEX | 0.88% | 16 | -7985.3 | 14 | -18.40% | 23 |
| UNIMA | 0.27% | 22 | -1564.4 | 10 | -8.40% | 17 |
| WASKO | 2.67% | 8 | -11612.1 | 18 | -6.60% | 15 |

Source: Author's own study based on the data from www.notoria.pl and www.vba.pl,
Note: Data from 2012

TABLE 5. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF DEVELOPERS

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| ALTERCO | 0.95% | 17 | -180210.7 | 20 | -43.50% | 22 |
| ATLASEST | 3.51% | 10 | -171401.9 | 19 | -16.50% | 18 |
| BBI_DEV | 1.55% | 14 | -43358.8 | 8 | 12.90% | 13 |
| CELPRODE | 0.33% | 24 | -264645.2 | 21 | -44.40% | 23 |
| DOMDEVEL | 16.95% | 1 | -76285.1 | 13 | -6.60% | 4 |
| ECHO | 11.60% | 3 | -145430.5 | 17 | -3.30% | 1 |
| EDINV | 0.43% | 21 | -8384.3 | 1 | 15.80% | 17 |
| GANT | 8.03% | 4 | -418985.8 | 22 | -46.50% | 24 |
| GTC | 12.30% | 2 | -1173183.8 | 26 | -13.40% | 15 |
| INPRO | 3.20% | 12 | -13144.8 | 3 | -7.00% | 6 |
| JHMDEV | 1.48% | 15 | -21967.5 | 5 | -7.80% | 8 |
| JW._CONST | 7.08% | 6 | -60062 | 11 | -6.30% | 3 |
| KCI | 0.10% | 25 | -21486.6 | 4 | -48.50% | 25 |
| LCCORP | 3.51% | 10 | -150803.2 | 18 | -11.10% | 12 |
| OCTAVA | 0.56% | 20 | -64692.7 | 12 | -13.20% | 14 |
| ORCO | 5.01% | 8 | -506122.2 | 23 | -14.90% | 16 |
| PLAZACEN | 0.83% | 18 | -804442.8 | 25 | 19.90% | 21 |
| POLNORD | 5.76% | 7 | -96879.3 | 15 | -5.90% | 2 |
| RANKPRO | 0.72% | 19 | -85566.1 | 14 | -10.00% | 11 |
| ROBYG | 8.02% | 5 | -56530.9 | 10 | -7.90% | 9 |
| RONSON | 3.96% | 9 | -52872.4 | 9 | -9.70% | 10 |
| TRANSUP | 0.36% | 23 | -42824.5 | 7 | -17.40% | 19 |
| TRITON | 0.41% | 22 | -41328.8 | 6 | -18.60% | 20 |
| WARIMPEX | 1.47% | 16 | -99943.7 | 16 | -7.00% | 7 |
| WIKANA | 1.87% | 13 | -12382.3 | 2 | -6.80% | 5 |

Source: Author's own study based on the data from www.notoria.pl and www.vba.pl,
Note: Data from 2012

TABLE 6. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF CONSTRUCTION

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| ABMSOLID | 0.78% | 17 | -166709.7 | 31 | -222.90% | 35 |
| AWBUD | 1.28% | 13 | -27110.6 | 24 | -22.30% | 24 |
| BIPROMET | 0.23% | 28 | -4194.5 | 7 | -6.50% | 15 |
| BUDIMEX | 24.39% | 1 | 68442.4 | 1 | 7.70% | 3 |
| BUDOPOL | 0.41% | 23 | -29303.8 | 25 | -41.70% | 28 |
| CENNOWTE | 0.50% | 22 | -3124.2 | 6 | -5.90% | 14 |
| ELBUDOWA | 4.13% | 7 | -12131.8 | 15 | -3.60% | 8 |
| ELEKTROT | 0.85% | 16 | -4847.5 | 9 | -5.50% | 12 |
| ELKOP | 0.03% | 36 | 10161.7 | 2 | 42.30% | 1 |
| ENERGOAP | 0.21% | 29 | 418.4 | 5 | 3.20% | 4 |
| ENMONTPD | 0.91% | 15 | -353734.2 | 33 | -215.70% | 34 |
| ERBUD | 5.56% | 5 | -13526.2 | 16 | -4.10% | 9 |
| HERKULES | 0.39% | 24 | -26602.5 | 23 | -9.10% | 18 |
| HYDROWLO | 0.25% | 27 | -1176134 | 34 | -235.80% | 36 |
| INSTAL_K | 1.73% | 12 | -4433.4 | 8 | -2.60% | 7 |

TABLE 6. ECONOMIC VALUE ADDED AND STRUCTURE OF SALES IN THE SECTOR OF CONSTRUCTION

| Company | Structure of sales in the sector | | EVA | | EVA / IC | |
|---|---|---|---|---|---|---|
| | [in %] | ranking | [in thousand PLN] | ranking | [in %] | ranking |
| INTAKUS | 0.11% | 32 | -33904.9 | 27 | -28.30% | 26 |
| INTERLUB | 0.54% | 21 | -7655.4 | 14 | -7.10% | 17 |
| MIRBUD | 0.08% | 34 | -13927.9 | 17 | -4.60% | 10 |
| MOST_EXP | 0.10% | 33 | -24345.8 | 21 | -43.20% | 29 |
| MOST_WWA | 12.80% | 3 | -158959.8 | 30 | -31.60% | 27 |
| MOST_ZAB | 2.65% | 10 | -35133.5 | 28 | -11.60% | 21 |
| PANOVA | 0.67% | 18 | -24141.3 | 20 | -6.90% | 16 |
| PBG | 7.38% | 4 | -3809356.5 | 36 | -158.00% | 33 |
| PBOANIOL | 0.35% | 26 | 592.1 | 4 | 1.10% | 5 |
| PEMUG | 0.17% | 31 | -5543.2 | 10 | -19.80% | 23 |
| POLAQUA | 3.33% | 9 | -214883.7 | 32 | -64.00% | 30 |
| POLIMEX | 16.49% | 2 | -1314049.3 | 35 | -78.10% | 31 |
| PROCHEM | 0.55% | 20 | -19428.5 | 18 | -16.30% | 22 |
| PROJPRZEM | 0.62% | 19 | -6182.7 | 12 | -5.90% | 13 |
| RESBUD | 0.20% | 30 | -6980 | 13 | -132.00% | 32 |
| TESGAS | 0.37% | 25 | -33904.1 | 26 | -24.90% | 25 |
| TRAKCJA | 5.40% | 6 | -84942.9 | 29 | -9.60% | 19 |
| ULMA | 1.04% | 14 | -21334.3 | 19 | -5.30% | 11 |
| UNIBEP | 3.36% | 8 | -5961 | 11 | -2.50% | 6 |
| WADEX | 0.08% | 34 | 1322 | 3 | 10.00% | 2 |
| ZUE | 2.08% | 11 | -24802.1 | 22 | -11.30% | 20 |

Source: Author's own study based on the data from www.notoria.pl and www.vba.pl,
Note: Data from 2012