Sectoral Analysis of Companies in the Electronic Games Industry Listed in Warsaw Stock Exchange

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Abstract:

Purpose: The subject of this paper are the producers of electronic games listed on the Warsaw Stock Exchange. Currently, the electronic games industry is developing very dynamically. It is characterized by large increases and volatility. The reason for this is the growing interest in games as well as the development of technology.

Approach/Methodology/Design: The subject of the paper are the annual reports of these entities for 2016-2018. In connection with the COVID-19 pandemic, the Polish legislator has extended the possibility of submitting approved reports for 2019 by 3 months. The audit was performed in the period 07-08 2020 and does not include financial statements for the financial year ending 2019. Due to the lack of generally available financial sector indicators for enterprises in the electronic games industry, the aim of the paper is to determine such indicators and to determine the market position and its changes in the surveyed enterprises in 2016-2018. The following research methods were used in the paper, analysis of the literature on the subject and financial statements, and methods of descriptive statistics.

Findings: The sector analysis shows that in the Polish electronic games market in 2016-2018, the group of leaders included companies such as PlayWay, CD Projekt and 11-bit studios. On the other hand, companies that were mainly in the outsider group were, One More Level, The Farm 51 Group, 7Levels and Huckleberry Games. Therefore, there is no reason to reject the hypothesis that companies offering a wider range of products tend to dominate the electronic games sector. In the electronic entertainment industry, the standard is competition and product promotion even during production because promotional activities are essential for sales success.

Practical Implications: Determining the indicators for this industry will allow a company to be compared in space, based on the actual size of other companies or average values in each sector as a reference base.

Originality/Value: The results of the analysis and theoretical considerations contained in this article complement existing research in the field of sectoral analysis.

Keywords: Sectoral analysis, electronic games industry, financial liquidity, operational efficiency, debt analysis, profitability analysis.

JEL classification: M41, G39. Paper Type: Research study.

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1. Introduction

The competitive environment of the enterprise includes entities with which the enterprise has business relationships. These include, for example: buyers, suppliers, existing and potential competitors, creditors, local community, company management, etc. A sector is a part of the industry that classifies enterprises producing products or services for a similar purpose, sold on the same geographic market. Sector analysis is a tool used to study the competitive environment of an economic unit. It allows to identify and evaluate the main factors influencing the attractiveness of doing business activity in the sector in which the company operates or plans to operate (Gierszewska and Romanowska, 2017).

The main goal of the sectoral analysis is to examine the attractiveness of the sector in terms of profitability, competitive position in the sector, as well as development opportunities, from the perspective of the economic unit conducting business in it, as well as the potential investor (Pieloch-Babiarz and Sajnóg, 2016). Methods to evaluation the structure and attractiveness of an enterprise and competition in a given sector include: Porter's five forces analysis, SWOT/TOWS analysis, financial analysis of companies belonging to the sector. Porter's five forces analysis focuses on the company's market situation in the industry. In this method following factors are examined: the risk of the appearance of substitutes for products offered by the sector or new producers, the bargaining power of suppliers and recipients, and competition within the sector. The SWOT/TOWS analysis focuses on the identification of internal (strengths and weaknesses) and external factors (opportunities and threats) that influence the company's competitive position in the sector.

The subject of this paper is the financial analysis of companies in the electronic entertainment industry. In 2002, the Polish journal "Accounting" started publishing sector indicators, which are calculated for sectors of the economy on the basis of the Polish Classification of Activities and they cover 96 sections. Although electronic entertainment industry is a dynamically developing, there are no sector industry indicators in Poland. Sector indicators are the basis for evaluate the financial situation of economic units in Poland. It is also possible to evaluate the sector in relation to the general financial situation of the analyzed enterprises, as well as the selected enterprise in relation to the sector. These indicators make it possible to answer the following questions: which of the sectors obtained higher management efficiency in a given year and what position did the analyzed economic unit gain in relation to the sector? The answers to these questions are important for the company's management or staff, as well as for outsiders. The assessment of the company's situation and its competitive position is important for the choices made by managers, employees, recipients, suppliers, statutory auditors, creditors, local authorities, and others (Dudycz and Skoczylas, 2014).

The main purpose of this paper is evaluations of the financial situation of Polish companies from the electronic entertainment industry in 2016-2018. An additional

goal is to define benchmark indicators for this sector. Determining the indicators for this industry will allow a company to be compared in space, based on the actual size of other companies or average values in a given sector as a reference base. In the course of the research, the following research hypotheses, concerning the analyzed sector, were formulated.

H1: The wider the range of products offered, the higher the company's market position in the electronic games industry.

H2: The greater the expenditure on advertising and promoting products, the higher the position in the ranking of an electronic game industry enterprise.

The study covered selected Polish companies from the electronic entertainment industry, which is marked in the Polish Classification of Activities as: "58.21.Z - publishing activity in the field of computer games". The subject of the research was the financial statements of companies from the electronic entertainment industry listed on the Warsaw Stock Exchange (WSE). The reports were obtained from the WSE website. The analyzed financial statements covered the years 2016-2018.

2. Literature Review

The issues of sectoral analysis are discussed primarily in monographs on analysis or strategic management. Gierszewska and Romanowska (2017) believe that the sectoral analysis is one of the tools for assessing and forecasting the future states of certain elements of an economic unit and its environment from the perspective of the chance of survival and development. Borowski (2014) argues that the sectoral analysis is part of the strategic analysis used to assess the competitiveness of the resources and skills of a company, and it defines the relationship between strategic and sectoral analysis.

Pieloch-Babiarz and Sajnóg (2016) define the objectives of the sectoral analysis and the strategic triangle - the "3C" formula, in which the company, customers and competitors transfer various benefits among themselves. Additionally, they identify factors that should be considered when making a sectoral analysis. Papers on the discussed issues focus primarily on the usefulness of the sectoral analysis in terms of macro and microeconomics. Bieniasz and Gołaś (2008) presented an analysis of the differentiation of financial liquidity of enterprises in Poland. It was carried out by sectors of the national economy and by the section of industrial processing. They stated that the level of financial liquidity of Polish enterprises is gaining a constant upward trend, regardless of the sector in which the entity operates. Mosiejko, Bernadelii and Sierant (2019) analyzed Polish listed companies in the field of financial liquidity management by sector. They showed that the financial liquidity of the analyzed public companies varies depending on the sector of activity. The most stable sectors were chemicals and raw materials, industrial production, construction and assembly production and consumer goods. Figura (2013) also studied the issue of financial liquidity by sector. He stated that the financial liquidity of enterprises is strongly diversified in the sectoral breakdown. For all the examined financial indicators, statistically significant differences were found between their sectoral distributions of values. Moreover, he questioned the usefulness of the ranges of reference values for liquidity presented in the literature on the subject.

Gostkowska-Drzewicka and Majerowska (2018) examined the dependence of the results of companies listed on the WSE on the sector in which they operate. Based on the estimates of statistical models, they found significant differences in the level of the return on assets (ROA) and return on equity (ROE) ratios of the analyzed companies depending on their affiliation to sectors. In the case of ROA, the estimates show a difference in the real estate sector compared to other sectors. In the case of ROE, the following sectors show such differences as compared to companies from the services sector.

3. Materials and Methods

The sectoral analysis covered Polish companies from the electronic entertainment industry, which is marked in the Polish Classification of Activities as: "58.21.Z - publishing activity in the field of computer games". Producers of electronic games are listed on the Warsaw Stock Exchange S.A. on the main market (hereinafter GPW) and in the alternative trading system NewConnect. The analysis was performed in 2016-2018 based on the annual reports of these entities. Due to the COVID-19 pandemic, the Polish legislator has extended the possibility of submitting approved reports for 2019 by 3 months. The audit was performed in the period 07-08 2020 and does not include statements for the financial year ending 2019. Due to the lack of generally available financial sector indicators for enterprises in the electronic games industry, the aim of the paper is to determine such indicators and to define the market position and its changes in enterprises in the analyzed years.

The paper adopts the research method used by Figura (2013), extending the scope of the research to all groups of financial indicators. In addition to the liquidity tested by Figure, the analysis covered operational efficiency, debt, and profitability. Based on the data from the financial statements, an evaluation sheet was created, into which the values necessary for the calculation of individual items of the financial statements were introduced. Then, the mean values of the indicators and other measures of descriptive statistics were calculated, which show the distribution of the examined variable and its variability. The statistical parameters that were used to present the financial ratios of the analyzed business entities are presented below:

1. A median that divides the set of indicators into two equal parts, that is, 50% of the indicators are above the median and 50% below.

2. An arithmetic mean that summarizes all information contained in the data set and forms the center of gravity of the observed indicators.

3. Standard deviation, it is the value of the average deviation of the monitored indicators from their mean value.

4. The max value is the maximum value of the indicator in the set.

5. The min value is the minimum value of the indicator in the set.

6. The top box is the width of the interval with 25% of the indicators above the middle value of the set (between the median and the upper quartile).

7. The bottom box is the width of the interval in which is 25% of the indicators below the middle value of the set (between the median and the lower quartile).

8. Mustache top is the width of the interval adjacent to the maximum, which includes 25% of indicators (leaders).

9. The mustache down is the width of the interval adjacent to the minimum, which includes 25% of indicators (outsiders). Based on the above-mentioned statistical parameters, the position of each enterprise in the analyzed sector was determined in accordance with Table 1.

Table 1. Positions of enterprises in the sector according to statistical parameters for financial indicators

Group	Statistical parameter	
Leaders	Maximum	
Leaders	Upper quartile	
Unner middle alass	Upper quartile	
Upper middle class	Median	
Lower middle class	Median	
Lower middle class	Lower quartile	
Outsiders	Lower quartile	
Outsiders	Minimum	

Source: Own study based on: Dudycz & Skoczylas.

Out of 36 companies in the electronic games industry listed on the stock exchange presented in Table 2 (10 companies listed on the Warsaw Stock Exchange and 26 companies listed on NewConnect), 22 companies for which financial statements were available were selected for sectoral analysis in 2016-2018 years.

		Market value, third quarter of 2019		Market value, fir quarter 2020	
	Stock	(thousand)	(thousand)	(thousand)	(thousand)
Company	exchange	PLN	EUR ³	PLN	EUR
CD Projekt	GPW	22 780 000	5 208 524	26 865 500	5 901 522
PlayWay	GPW	1 247 000	285 120	1 577 000	346 418
Ten Square Games	GPW	1 083 000	247 622	1 433 766	314 954
11 bit Studios	GPW	869 000	198 692	914 879	200 971
The Farm 51	NewConnect	178 600	40 836	145 600	31 984
CI Games	GPW	163 000	37 269	135 870	29 846
Forever Entertainment	NewConnect	126 200	28 855	126 480	27 784
Creepy Jar	NewConnect	140 300	32 079	122 298	26 865

Table 2. Value of Polish gaming companies listed on the stock exchange

³ Euro exchange rates from the end of the quarter were used for conversion.

Bloober Team	NewConnect	106 900	24 442	106 214	23 332
Ultimate Games	GPW	97 000	22 179	102 089	22 426
BoomBit	GPW	138 000	31 553	86 022	18 896
Movie Games	NewConnect	90 000	20 578	85 427	18 766
One More Level	NewConnect	62 000	14 176	66 360	14 577
Varsav Game Studios	NewConnect	88 400	20 212	52 731	11 583
ECC Games	NewConnect	62 700	14 336	51 288	11 266
Arts Alliance	NewConnect	68 100	15 571	50 960	11 194
Klabater	NewConnect	21 900	5 007	42 181	9 266
Vivid Games	GPW	36 800	8 414	36 822	8 089
Artifex Mundi	GPW	38 600	8 826	34 977	7 683
CreativeForge Games	NewConnect	34 900	7 980	34 564	7 593
Cherrypick Games	NewConnect	31 200	7 134	33 574	7 375
Carbon Studio	NewConnect	30 000	6 859	28 274	6 211
QubicGames	NewConnect	28 900	6 608	27 987	6 148
Jujubee	NewConnect	9 300	2 126	22 075	4 849
No Gravity Games	NewConnect	17 000	3 887	20 881	4 587
Sonka	NewConnect	18 000	4 116	20 385	4 478
Draw Distance	NewConnect	18 400	4 207	19 405	4 263
The Dust	NewConnect	14 200	3 247	18 130	3 983
T-Bull	GPW	21 700	4 962	16 384	3 599
Moonlit	NewConnect	25 200	5 762	16 000	3 515
7Levels	NewConnect	14 000	3 201	11 400	2 504
Drageus Games	NewConnect	-	-	10 500	2 307
Art Games Studio	NewConnect	11 500	2 629	8 800	1 933
Prime Bit Games	NewConnect	5 400	1 235	5 744	1 262
Red Dev Studios	NewConnect	7 200	1 646	4 983	1 095
Huckleberry Games	NewConnect	2 200	503	1 964	431
	Sum	27 686 600	6 330 391	32 337 514	7 103 555

Source: https://graczpospolita.pl/wartosc-polskich-producentow-gier/.

4. Results

The sector analysis was carried out in three analytical areas:

- in terms of financial liquidity for the quick liquidity ratio and the current liquidity ratio,
- in terms of operational efficiency for the cost level indicator,
- in terms of the level of debt for the general debt ratio and the long-term debt ratio,
- in terms of profitability for the sales profitability index, the operating sales profitability index, the operating sales profitability index increased by depreciation, the net sales profitability index and the return on equity index.

In the case of examining the level of costs and the level of debt, with the methodology adopted in the paper, the maximum (in Tables 5-7) does not mean the maximum value

of the indicator, but the direction of its operation. The decreasing value of the cost level index means a favorable tendency, which is presented in Table 5 as the maximum. The growing cost share ratio is an unfavorable trend, presented as a minimum. A similar relationship applies to the debt ratios.

4.1 Sectoral Analysis of Financial Liquidity

The statistical parameters presented in Table 3 and Table 4 for the quick ratio and the current ratio in the general trend analysis show how the sales of computer games changed over the analyzed period. The change concerns to a large extent departure from box sales and the transition to sales from online platforms, which significantly reduced the inventories in the analyzed enterprises, and this in turn contributed to the reduction of excess liquidity. In addition, it was also influenced by the payment policy associated with online platforms, where the funds are received directly after the purchase.

Table 3. Statistical parameters of the quick liquidity ratio for enterprises in the electronic games industry in 2016-2018

Description	2016	2017	2018
Maximum	59.92	79.88	14.64
Upper quartile	3.34	10.06	8.60
Median	1.23	2.34	3.12
Lower quartile	0.55	0.86	1.03
Minimum	0.01	0.04	0.09
Arithmetic average	6.03	8.95	4.78

Source: Authors' calculations.

Table 4. Statistical parameters of the current liquidity ratio for enterprises in the electronic games industry in 2016-2018

Description	2016	2017	2018
Maximum	68.32	86.76	14.72
Upper quartile	6.78	13.07	9,92
Median	1.73	7.23	6.23
Lower quartile	0.87	2.13	3.34
Minimum	0.05	0.35	0.87
Arithmetic average	8.11	11.56	6.69

Source: Authors' calculations.

4.2 Sectoral Analysis of Operational Efficiency

Within this analytical area, only the cost level indicator is examined due to the need to verify the T2 thesis. The cost level ratio determines the ratio of basic operating costs to sales revenues. The largest cost group are the costs of producing games and selling costs related to marketing and promotional activities. In the production period, the production costs are higher than the selling costs, but in the period immediately before

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and after the game's premiere, selling costs often increase significantly. However, in the electronic games industry, the sales costs incurred are to translate into the popularity of a given game and an increase in its sales and increase in revenues. Table 5 shows that enterprises in the electronic games industry, if they implement an appropriate cost management policy, in particular costs related to marketing and promotion, will increase operational efficiency, i.e. the ability to generate revenues. In strategic management, the highest level of usefulness is observed in the analysis of the cost level (Goldmann, 2020).

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Description	2016	2017	2018
Maximum	37.22	32.93	36.32
Upper quartile	52.29	64.26	67.93
Median	91.63	98.25	107.19
Lower quartile	161.95	165.08	187.78
Minimum	172.76	1736.71	14000.00
Arithmetic average	101.71	175.64	1302.74

 Table 5. Statistical parameters of the cost level index for enterprises in the electronic games industry in 2016-2018 (%)

Source: Authors' calculations.

4.3 Debt Sector Analysis

The sectoral approach to the indebtedness of enterprises in the electronic games industry indicates low overall indebtedness and no or little long-term indebtedness, as shown in Table 6 and Table 7. This industry mainly relies on short-term capital for its external financing, which increases the risk of financial security.

Table 6. Statistical parameters of the general debt ratio for enterprises in the electronic games industry in 2016-2018

Description	2016	2017	2018
Maximum	0.02	0.02	0.05
Upper quartile	0.11	0.09	0.11
Median	0.21	0.16	0.19
Lower quartile	0.34	0.33	0.28
Minimum	3.26	2.84	0.55
Arithmetic average	0.46	0.36	0.22

Source: Authors' calculations.

Table 7. Statistical parameters of the long-term debt ratio for enterprises in the electronic games industry in 2016-2018

Description	2016	2017	2018
Maximum	0.000	0.00	0.00
Upper quartile	0.000	0.00	0.01
Median	0.010	0.03	0.05
Lower quartile	0.011	0.10	0.16

Minimum	0.190	6.37	0.97	
Arithmetic average	0.027	0.41	0.18	

Source: Authors' calculations.

4.4 Profitability Sector Analysis

The electronic games industry is specific. If a game appeals to the majority, then it ranks high in the rankings. This makes it interesting for many players who decide to make a purchase. Their decisions translate into increased profitability of the company producing such a popular game. Therefore, promoting the product while the game is in production is essential to sales success. The individual profitability ratios are presented in Tables 8-12.

Table 8. Statistical parameters of the sales profitability index for enterprises in the electronic games industry in 2016-2018 (%)

Description	2016	2017	2018
Maximum	62.78	67.07	64.68
Upper quartile	47.71	35.74	32.07
Median	8.37	1.75	-7.19
Lower quartile	-61.95	-65.08	-87.78
Minimum	-72.76	-736.71	-4000.00
Arithmetic average	-1.71	-75.64	-302.74

Source: Authors' calculations.

Table 9. Statistical parameters of the profitability of operating sales (EBIT) for enterprises in the electronic games industry in 2016-2018 (%)

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Description	2016	2017	2018
Maximum	61.83	66.79	56.71
Upper quartile	38.76	35.23	38.96
Median	8.19	-2.31	-9.90
Lower quartile	-57.38	-47.48	-60.59
Minimum	-93.16	-732.91	-4800.00
Arithmetic average	2.98	-74.86	-321.81

Source: Authors' calculations.

Table 10. Statistical parameters of the profitability of operating sales + depreciation (EBITDA) for enterprises in the electronic games industry in 2016-2018 (%)

Description	2016	2017	2018
Maximum	68.84	67.36	62.14
Upper quartile	44.92	41.47	47.56
Median	12.36	7.71	18.76
Lower quartile	-30.48	-36.58	-41.85
Minimum	-56.88	-713.92	-4380.00
Arithmetic average	4.18	-56.72	-275.54

Source: Authors' calculations.

<i>ames mausiry in 2010-2018 (76)</i>				
Description	2016	2017	2018	
Maximum	50.75	53.65	45.68	
Upper quartile	36.43	27.67	32.36	
Median	1.54	6.73	23.28	
Lower quartile	-57.68	-37.68	-57.51	
Minimum	-86.79	-712.65	-9800.00	
Arithmetic average	3.78	-68.94	-563.07	

Table 11. Statistical parameters of the net sales profitability index for enterprises in the electronic games industry in 2016-2018 (%)

Source: Authors ' calculations.

Table 12. Statistical parameters of the return on equity ratio for enterprises in the electronic games industry in 2016-2018 (%)

Description	2016	2017	2018
Maximum	63.64	70.24	89.53
Upper quartile	19.97	19.64	22.79
Median	-4.52	-5.89	-0.90
Lower quartile	-20.31	-25.80	-30.52
Minimum	-49.17	-323.70	-85.43
Arithmetic average	1.12	-19.84	-2.07

Source: Authors' calculations.

The analysis shows that in 2016-2018, companies producing computer games were more profitable than companies producing mobile games. Computer games were projected to be increasingly displaced by mobile games as most people have access to mobile devices, but so far, the market has not declined. The sectoral analysis showed that the profitability achieved by enterprises largely depends on the popularity of the designed games, which translates into the recognition of the entity that produces them. The liquidity and profitability goals are contradictory to each other in most management decisions (Niresh, 2012).

The sector analysis of the computer games industry made it possible to determine which companies are leaders and dominate the Polish gaming market, and which are not doing well and occupy the last market positions in 2016-2018. The leaders include: - PlayWay S.A., which produces and publishes mobile and browser games. He creates free-to-play games for platforms such as: Android, iOS, and Windows Phone. The company specializes mainly in creating sports and simulation games;

- CD Projekt S.A., whose main activity is the production and publishing of video games for consoles and personal computers. The representative titles of this studio are the Witcher games series, and recently Cyberpunk 2077;

- 11-bit studios S.A., whose main activity is the production, publishing, and distribution of games for consoles and computers. He independently deals with every stage of game development, i.e., production, marketing, and distribution.

On the other hand, the group of outsiders for most of the indicators included The Farm 51 Group S.A and three other developing companies: One More Level S.A., 7Levels S.A. and Huckleberry Games S.A. The Farm 51 Group S.A. deals with the creation of games for computers, stationary consoles, and handheld consoles in VR technology. VR glasses transport the player to another world by affecting sight, hearing, and the sense of orientation. The problem, however, is the high price of such a device, a small number of games and companies involved in developing software for them. One More Level S.A. specializes in the production and publishing of games for consoles and computers. Level S.A. is an independent producer of games for Nintendo consoles, which are popular in the USA, Japan and Western Europe. Huckleberry Games S.A. deals with creating innovative MMORPGs. The most important production of the company is the multiplayer RPG game called "Edengrad". The following companies were characterized by the greatest volatility in terms of changes in individual groups in 2017 and 2018:

- Cherrypick Games S.A. deals with the creation, publishing, and distribution of games for all leading platforms, i.e. iOS, Android, MacOs, PlayStation 4 and Xbox One. In 2017, it significantly worsened its market position (most of the analyzed financial indicators), only to improve it again in 2018;

- Bloober Team S.A. is an independent producer of video games that are available worldwide via digital distribution. He focuses on creating games about psychological horror movies, rich in dark atmosphere. In 2017, it deteriorated its market position in the area of operational efficiency and profitability, to improve it again in 2018;

- QubicGames S.A. is a company whose main activity is the production of multiplatform games for platforms such as: iOS, Android, Steam, PlayStation 4, Xbox One. In 2017, it improved its market position in the area of operational efficiency and profitability, and in 2018 in the area of debt;

- Jujubee S.A. is a Polish studio that deals with creating video games for platforms such as: iOS, Android, Mac and PC. He also creates games commissioned by external entities. In 2017, it worsened its market position in liquidity, and in 2018 in the area of debt.

5. Conclusions

Sector analysis is aimed at examining the attractiveness of a sector from the perspective of the economic unit conducting business in it, as well as a potential investor. It enables the assessment of the sector in terms of development prospects, as well as the identification of areas that could be an attractive sphere for the company's operations in the future.

In this article, particular attention is paid to the sectoral analysis based on financial indicators. Ratio analysis is the part of financial analysis that is used to study different areas of an enterprise using indicators. The indicators are a simple tool for comparing the obtained results of the enterprise with the size of competition or the average values of indicators obtained in each sector.

The sector analysis of companies from the electronic entertainment industry in 2016-2018 allowed to determine the general trends and market position of individual entities in specific analytical areas. Thanks to this, you can see which of them dominate the Polish gaming market and which have the lowest results. This allows you to determine which companies in this industry are the greatest competition for each other. On the Polish electronic games market in 2016-2018, the group of leaders included mostly companies that offer a wider range of products, which means that there is no reason to reject the first hypothesis. In the electronic entertainment industry, the standard is competition and product promotion even during production due to the fact that promotional activities are essential for sales success.

The popularity of the game is very important, which translates into a better financial situation of the company. Therefore, there is also no reason to reject the second hypothesis, because marketing and product promotion contribute to better financial results, which translates into a higher position in the ranking of companies in the electronic games industry.

In recent years, the computer games industry in Poland has been developing dynamically and generates large revenues. For investors and entrepreneurs, the gaming market is a place to earn money, however, share prices are characterized by high volatility and high risk, because whether the game premiere is successful or unsuccessful significantly affects the stock market condition of the entity. Therefore, sectoral analysis based on statistical parameters built on financial indicators is a tool for both investors and enterprises. It not only characterizes the specificity of the industry in given areas of financial analysis, but also allows to determine the market position of the company in each period. If we analyze several periods, we can determine what has changed the market position.

Due to the fact that in the sectoral analysis, statistical parameters are created for selected financial indicators in given analytical areas, this reference in terms of determining or changing the market position for an enterprise can be made for a selected financial indicator or for the entire basket of financial indicators.

The generation of generations is changing as people who have had contact with games from childhood grow up. As adults, they can spend more money on this form of entertainment, and this means that the value of the gaming market will continue to grow dynamically, which will attract the interest of both existing and new investors. This paper is a starting point for further research in the field of sectoral analysis. According to the authors, this is an important analytical element in the assessment of the market position of companies, especially during the COVID-19 pandemic.

References:

Borowski, K. 2014. Analiza fundamentalna metody wyceny przedsiębiorstwa. Difin. Warszawa, 288-289.

- Bieniasz, A., Gołaś, Z. 2008. Sektorowe zróżnicowanie płynności finansowej przedsiębiorstw w Polsce. J. Agribus. Rural Dev, 2(8), 13-24.
- Dudycz, T., Skoczylas, W. 2014. Wskaźniki sektorowe za rok 2012. Rachunkowość nr 3/2014.
- Figura, P. 2013. Sektorowe zróżnicowanie płynności finansowej przedsiębiorstw. Zarządzanie i Finanse, R. 11, nr 1, cz. 4, 55-72.
- Gierszewska, G., Romanowska, M. 2017. Analiza strategiczna przedsiębiorstwa. Polskie Wydawnictwo Ekonomiczne. Warszawa, 75.
- Goldmann, K. 2020. Use of Financial Analysis in Operational and Strategic Management in Practice of Polish Business. Eurasian Business Perspectives. Springer, Cham, 115-125.
- Gostkowska-Drzewicka, M., Majerowska, E. 2018. Przynależność sektorowa a wyniki spółek notowanych na GPW w Warszawie. Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu. 531/2018, 139-148. DOI: 10.15611/pn.2018.531.12.
- Mosiejko, L., Bernadelii, M., Sierant, A. 2019. Płynność finansowa spółek notowanych na Giełdzie Papierów Wartościowych w Warszawie SA w latach 2002–2017 w ujęciu sektorowym – część 1. Studia i prace Kolegium Zarządzania i Finansów, 173/2019. Oficyna Wydawnicza SGH, 9-27.
- Niresh, J.A. 2012. Trade-off between liquidity & profitability: a study of selected manufacturing firms in Sri Lanka. Researchers World – International Refereed Journal of Arts Science & Commerce Research, [online] Available at: http://www.researchersworld.com/vol3/issue4/vol3 issue4 2/Paper 05.pdf.
- Pieloch-Babiarz, A., Sajnóg, A. 2016. Podstawy analizy fundamentalnej. Podejście strategiczne, Wydawnictwo Uniwersytetu Łódzkiego. Łódź, 119.