# Financial and Non-Financial Reporting – an Attempt to Correlation Between Selected Chosen Variables

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## Abstract

*This paper describes a study designed to find correlations between intellectual capital efficiency, measured using the Value Added Intellectual Coefficient (VAIC), and selected components of reports submitted by KGHM Polska Miedź S.A., a Polish mining company. The study examined such components as the company's intangible assets, number of jobs/FTEs (Full-time equivalent) and the net financial result. The timeframe explored here is the period between 2004 and 2018 (the last 14 years). We assumed that intellectual capital efficiency should be correlated with intangible assets, which are part of fixed assets, but the results of our study proved otherwise. Our analysis demonstrated that intellectual capital efficiency was correlated the strongest with the company's financial performance.*

*Keywords: intellectual capital, financial reporting, correlation*

## Introduction

In the era of knowledge society in which we currently live, one of the basic premises underlying decisions that people make in order to manage their lives or run a company is information. People undertake specific activities based on the information that they possess and the knowledge that is built on such information. Every company is aware of the fact that a broad group of stakeholders, both external (shareholders, contractors, suppliers, local environment, etc.) or internal (employees), make specific decisions pertaining to relations with the company, its operation and its products on the basis of information that reaches them. Thus, access to the most comprehensive information is in the interest of both of the above-mentioned groups. This does not involve onlythe financial standing and the condition of the company with respect to material aspects, but also the forecasts of such condition in the future and the non-financial aspects of the company's operations.

Currently, it is crucial for stakeholders to be provided with status reports on the situation of their business. The reported data is not only financial or quantitative, but also qualitative. Reporting requirements for non-financial data are expanding to cover more and more companies.

In order to meet such reporting requirements for non-financial data, it is also important to consider intangible assets, also known as intellectual capital. Due to its non-quantifiable nature, this intangible asset does not lend itself easily to reporting. But it plays a major role and its value translates into the market value of traded companies. This is why this paper addresses the question of whether there is a correlation between selected financial data and intellectual capital. If there was one, it could be the basis for managing the value of intellectual capital and exploring its relationships with the financial items reported in the profit and loss account.

## Non-financial reporting of (publicly) traded companies

Integrated reporting is now a standard for companies to present an account of their performance. If a business is also a traded company, these requirements are very important, and they cover not only financial reporting but also corporate social responsibility reports on intangible operations of the company.

Financial reporting standards include such guidelines as those developed by the International Standards Organization, Sustainability Accounting Standards Board, Social Accountability International and UL Environment. But the most commonly used guidelines are those by the Global Reporting Initiative (GRI) and the International Integrated Reporting Commitee (IIRC) (Kowal, Kustra, 2016). GRI guidelines provide a consistent framework for reporting business performance in relation to economic, social, and environmental activities. And they provide measures to compare the performance of companies operating in the same industry, as well as to collate single-company data submitted over several years (Lorenc, Kustra, 2016). In 2013, GRI published G4, additional guidelines for social reporting. With the advent of this standard, the scope of reporting is extended to cover social matters related to the involvement of stakeholders in the reporting process. This suggests that they play a crucial role by providing valuable advice on the relevance of the content to be included in the report.

IRC framework, on the other hand, includes guidance on the relationships between financial reporting and sustainable development reporting. The information to be reported includes the external environment impacting the company, any resources and relationships used and created by the company, and the interaction between the company's external environment and its resources in the short, medium and long terms of value creation (IIRC, 2013, p. 10).

In addition to integrated reporting based on the most common guidelines, as mentioned above, since 2017, under the
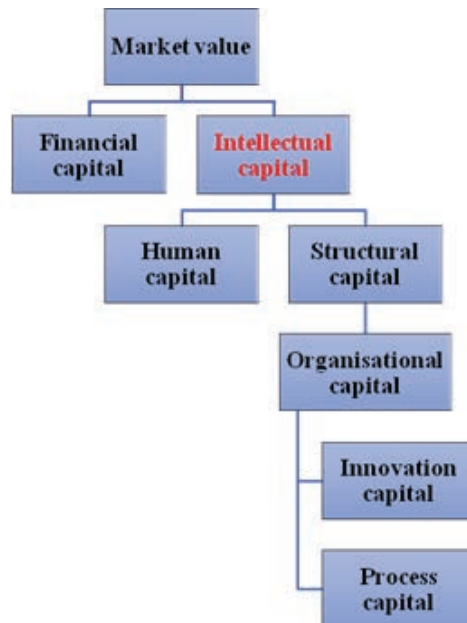
Fig. 1 Classification of intellectual capital, as proposed by Edvinsson L. and M. Malone M. Source: Jemielniak D., Koźmiński A. K. Scientific Editor Zarządzanie wiedzą [Knowledge management], Warsaw 2012

Rys. 1. Klasyfikacja kapitału intelektualnego, jak zaproponowali Edvinsson L. i M. Malone M.

Act of 15 December 2016 [DzU,, 2017], traded companies are required to publicly disclose their Corporate Social Responsibility (CSR) reports. This concept approaches strategy-creation by taking into consideration social needs and environment protection, as well as relationships with company's stakeholders, (Podobińska-Staniec, 2018), (Kowal, Kowal, 2011).

But all of the above-mentioned guidelines for integrated reporting are still lacking in information about methods for creating and using intellectual capital to build corporate value. There is no clear indication that businesses know where such capital is generated and what are its outcomes. Therefore, it seems important to consider if the reported data on intangible assets, employees, training and R&D outlays, or, by extension, profits at various levels of operations, is linked in some way to intellectual capital. This is to check whether with more adequate research funding, better-qualified personnel and greater balance-sheet value of intangible assets, the value of intellectual capital, i.e. its efficiency, is significantly greater.

**Attempt to correlate tangible assets with intellectual capital**

This study proposes and examines a hypothesis suggesting that there is a correlation between tangible assets, as presented in financial statements, and non-tangible assets, here considered to be equivalent to intellectual capital. Based on selected tangible variables, we sought correlations with intellectual capital measured as a difference between market and book values, and one computed using the Value Added Intellectual Coefficient (VAIC).

The choice of variables for this model from tangible data is not accidental, and it relies on individual capital types, such as human capital and structural capital, and in particular investments and R&D, which are parts of intellectual capital. Divided into two main groups, human capital and structural capital, these capital types are presented as follows:

Ø     Human capital – included in the model asemployee benefit expenses, taken from natural cost accounts, employ-

ment figures – annual average employment level in the capital group expressed as the number of jobs, salary level – annual average salary in the group.

In addition, it is important to note that there are data that could directly represent the efficiency of intellectual capital, but these are not unambiguously recorded. A selected capital group monitors information on R&D costs and scope, but such information is not presented in each executive report, hence it cannot be compared or included in the model. Similar is true for data on the number of training hours, number of training participants, or number of improvement requests. Moreover, it is also recommended to monitor the number of employees who have raised their professional qualifications, e.g. through university education, specialist courses, coaching, or placements, during any specific year. With continuous and unambiguous monitoring, these data could constitute additional information about the efficiency of intellectual capital and its generation by human capital.

Ø     Structural capital is included in the model through the book value of:
·     equity,
·     net result,
·     operating profit,
·     net cash flows from investment activities
·     intangible assets,
·     advertising costs,
·     ROA and ROE.

No significant correlations were found between these tangible assets and the difference between market and book values for the examined capital group. Thus, the first model was abandoned. In order to represent intellectual capital, we selected VAIC, a method that describes how efficiently intellectual capital is used to generate value added. Based on this approach, the

Tab. 1. VAIC for the selected capital group. Source: own work on the basis of financial reports by the selected capital group
Tab. 1. VAIC dla wybranej grupy kapitałowej

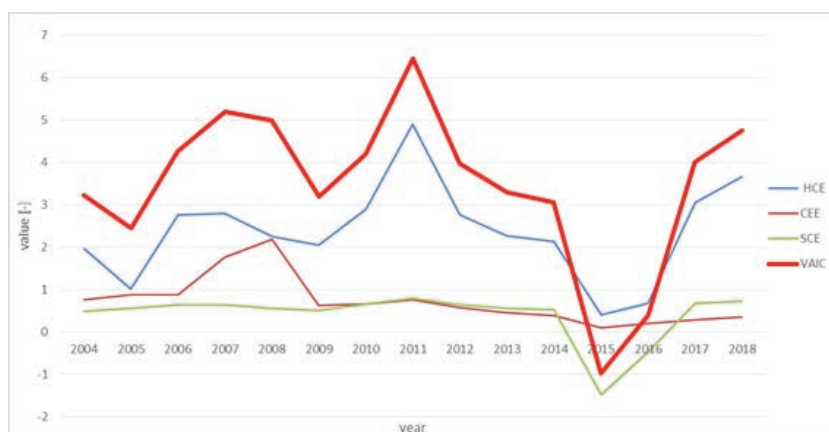| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| operating profit [mln zł] | 1554 | 2509 | 4201 | 4682 | 3186 | 2679 | 5545 | 13232 | 6594 | 4372 | 3676 | -4816 | -3219 | 1753 | 3156 |
| human capital HC [mln zł] | 2068 | 2444 | 2697 | 2938 | 3081 | 3262 | 3384 | 3620 | 4570 | 4702 | 4704 | 4706 | 4672 | 1684 | 1903 |
| amortization [mln zł] | 455 | 485 | 535 | 598 | 681 | 744 | 844 | 846 | 1453 | 1580 | 1635 | 2015 | 1718 | 1684 | 1903 |
| value added VA [mln zł] | 4077 | 5437 | 7433 | 8219 | 6949 | 6685 | 9773 | 17698 | 12617 | 10654 | 10015 | 1905 | 3171 | 5121 | 6962 |
| equity CE [mln zł] | 5337 | 6214 | 8514 | 4682 | 3186 | 10575 | 14892 | 23382 | 21710 | 23064 | 25530 | 20414 | 15911 | 17785 | 19225 |
| CEE [-] | 0,76 | 0,88 | 0,87 | 1,76 | 2,18 | 0,63 | 0,66 | 0,76 | 0,58 | 0,46 | 0,39 | 0,09 | 0,20 | 0,29 | 0,36 |
| HCE [-] | 1,97 | 1,02 | 2,76 | 2,80 | 2,26 | 2,05 | 2,89 | 4,89 | 2,76 | 2,27 | 2,13 | 0,40 | 0,68 | 3,04 | 3,66 |
| SC=VA-HC [-] | 2009 | 2993 | 4736 | 5280 | 3868 | 3423 | 6389 | 14078 | 8047 | 5952 | 5311 | -2801 | -1501 | 3437 | 5059 |
| SCE=SC/VA [-] | 0,49 | 0,55 | 0,64 | 0,64 | 0,56 | 0,51 | 0,65 | 0,80 | 0,64 | 0,56 | 0,53 | -1,47 | -0,47 | 0,67 | 0,73 |
| ICE=HCE+SCE [-] | 2,46 | 1,57 | 3,39 | 3,44 | 2,81 | 2,56 | 3,54 | 5,68 | 3,40 | 2,82 | 2,66 | -1,07 | 0,21 | 3,71 | 4,39 |
| VAIC=CEE+HCE+SCE [-] | 3,23 | 2,44 | 4,27 | 5,19 | 4,99 | 3,19 | 4,20 | 6,44 | 3,98 | 3,29 | 3,05 | -0,97 | 0,40 | 4,00 | 4,75 |



Fig. 2.  VAIC and its components HCE, CEE, and SCE. Source: own work on the basis of financial reports by the selected capital group
Rys. 2. VAIC i jego komponenty HCE, CEE i SCE

Tab. 2. Statistics of VAIC. Source: own work
Tab. 2. Statystyki VAIC

| statistics | Summary: Dpndt. vrbl.: VAIC |
|---|---|
| | Value |
| Multiple R | 0,890956127 |
| Multiple R2 | 0,79380282 |
| Adjusted R2 | 0,777941499 |
| F(1,13) | 50,0464491 |
| p | 0,00000836273102 |
| Standard error | 0,872300006 |

model showed significant correlations and good data fit, which constituted the basis for further econometric analysis.

For the examined capital group, traded at the Warsaw Stock Exchange (WGPW) in the extractive industry, VAIC was calculated for the period between 2004 and 2018. The obtained results are presented in Table 1.

These were also calculated as part of VAIC (Pulic, 2000):
- human capital efficiency (HCE) in creating value added;
- capital employed efficiency (CEE) in creating value added;
- structural capital efficiency (CEE) in creating value added;
- intellectual capital efficiency (intellectual power) of the company  (ICE= HCE + SCE).

This study focuses on the value of VAIC, which describes the efficiency of intellectual value added, which, in turn, shows how physical, human, and structural capitals are used to create intellectual capital.

VAIC values were compared to selected tangible data for 2004-2017, as found in the profit and loss accounts of the examined capital group.

The first comparison (Analysis Part 1 – Tables 2, 3, and 4) showed VAIC to have the highest correlation with net result, operating profit, and ROA and ROE. But due to the correlations between these variables, what had the largest impact on VAIC values was net result. Net result was then broken down by accounts which made up its value. This level of detail was necessary to assess how the individual variables from the set of selected tangible assets affected VAIC. The second part of the analysis (Analysis Part 2 – Tables 5, 6, and 7) showed VAIC to have the strongest correlation with Other operating income.

**Summary**

The purpose of this paper was to examine the impact of

Tab. 3. Summary of dependent variable regression of VAIC. VAIC=0,0043x+2,39874, x-net results. Source: own work.
Tab. 3. Podsumowanie regresji zmiennej zależnej VAIC

| N=15 | Summary of dependent variable regression: VAIC  R= ,89095613 R^2= ,79380282 Popraw. R2= ,77794150  F(1,13)=50,046 p<.00001 Standard error: .87230 | | | | | |
|---|---|---|---|---|---|---|
| | b* | st. error from b | b | st.error z b | t(13) | p |
| b | | | 2,398746 | 0,273556 | 8,768764 | 0,000001 |
| net result | 0,890956 | 0,125942 | 0,000436 | 0,000062 | 7,074351 | 0,000008 |

T ab. 4. Correlations between variables 1-10. Source: own work
Tab. 4. Korelacje między zmiennymi 1-10

| variable | The identified correlation coefficients are significant at p < .05000  N=15 (Cases with missing values were deleted listwise) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | average | standard deviation | VAIC | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| VAIC | 3,50 | 1,851 | 1,000 | 0,868 | -0,035 | 0,891 | 0,82 | 0,811 | 0,297 | -0,162 | -0,307 | -0,254 | -0,067 |
| 1 | 3273,62 | 4082,989 | 0,868 | 1,000 | 0,201 | 0,985 | 0,83 | 0,796 | 0,248 | -0,009 | -0,202 | -0,196 | -0,011 |
| 2 | 15539,07 | 6658,783 | -0,035 | 0,201 | 1,000 | 0,089 | -0,34 | -0,382 | -0,576 | 0,690 | 0,775 | 0,843 | 0,840 |
| 3 | 2520,97 | 3785,384 | 0,891 | 0,985 | 0,089 | 1,000 | 0,88 | 0,858 | 0,327 | -0,117 | -0,279 | -0,304 | -0,106 |
| 4 | 13,93 | 14,890 | 0,821 | 0,825 | -0,339 | 0,882 | 1,00 | 0,984 | 0,552 | -0,315 | -0,588 | -0,668 | -0,438 |
| 5 | 19,49 | 22,630 | 0,811 | 0,796 | -0,382 | 0,858 | 0,98 | 1,000 | 0,532 | -0,335 | -0,535 | -0,681 | -0,505 |
| 6 | -2395,40 | 3593,654 | 0,297 | 0,248 | -0,576 | 0,327 | 0,55 | 0,532 | 1,000 | -0,531 | -0,720 | -0,711 | -0,700 |
| 7 | 58,48 | 13,171 | -0,162 | -0,009 | 0,690 | -0,117 | -0,32 | -0,335 | -0,531 | 1,000 | 0,695 | 0,622 | 0,570 |
| 8 | 947,80 | 1071,140 | -0,307 | -0,202 | 0,775 | -0,279 | -0,59 | -0,535 | -0,720 | 0,695 | 1,000 | 0,805 | 0,639 |
| 9 | 3800,44 | 1032,184 | -0,254 | -0,196 | 0,843 | -0,304 | -0,67 | -0,681 | -0,711 | 0,622 | 0,805 | 1,000 | 0,898 |
| 10 | 29846,47 | 5576,306 | -0,067 | -0,011 | 0,840 | -0,106 | -0,44 | -0,505 | -0,700 | 0,570 | 0,639 | 0,898 | 1,000 |

Legend:
1 – operating profit
2- equity
3- net result
4- ROA
5- ROE
6- net cash flows from investment activities
7- advertising costs
8- intangible assets
9- human capital
10-regular post

Tab. 5. Statistics of VAIC. Source: own work
Tab. 5. Statystyki VAIC

| statistics | Summary: Dpndt. vrbl.:VAIC  Value |
|---|---|
| Multiple R | 0.93885517 |
| Multiple R2 | 0.881449029 |
| Adjusted R2 | 0.859894308 |
| F(2,11) | 40.8935468 |
| p | 0.00000806265598 |
| Standard error | 0.706378895 |

Tab. 7. Summary of dependent variable regression of VAIC – information about other operating income. VAIC=10-6x+10-6z+3,2924, x-other operating income, z-financial result. Source: own work
Tab. 7. Zmienna regresja VAIC - informacje o innych przychodach operacyjnych

| N=14 | Summary of dependent variable regression: VAIC (Sheet 143)  R= .93885517 R^2= .88144903 Adjusted R2= .85989431  F(2.11)=40.894 p<.00001 Standard error: .70638 | | | | | |
|---|---|---|---|---|---|---|
| | b* | st. error from b | b | st.error z b | t(11) | p |
| Absolute term | | | 3,292395 | 0,192110 | 17,13805 | 0,000000 |
| Other operating income | 0,850657 | 0,115687 | 0,000001 | 0,000000 | 7,35310 | 0,000014 |
| Financial result | 0,171195 | 0,115687 | 0,000001 | 0,000001 | 1,47982 | 0,166983 |

Tab. 6. Correlations between variables 1-8. Source: own work
Tab. 6. Korelacje między zmiennymi 1-8

| | Correlations (Sheet 143)<br>The identified correlation coefficients are significant at p < .05000<br>N=14 (Cases with missing values were deleted listwise) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | a) | b) | c) | d) | e) | f) | f1) | f2) | 3. | 4. | 5. | 6. | 7. | 8. | VAIC |
| 1 | 1,00 | 0,93 | -0,72 | 0,78 | -0,15 | 0,39 | -0,58 | 0,26 | 0,41 | -0,49 | 0,53 | 0,64 | -0,05 | 0,52 | -0,76 | 0,47 | 0,32 |
| a) | 0,93 | 1,00 | -0,92 | 0,55 | -0,45 | 0,67 | -0,83 | -0,11 | 0,04 | -0,46 | 0,19 | 0,32 | -0,24 | 0,17 | -0,52 | 0,11 | -0,04 |
| b) | -0,72 | -0,92 | 1,00 | -0,18 | 0,69 | -0,85 | 0,97 | 0,41 | 0,30 | 0,31 | 0,18 | 0,06 | 0,36 | 0,21 | 0,16 | 0,26 | 0,38 |
| 2. | 0,78 | 0,55 | -0,18 | 1,00 | 0,33 | -0,13 | -0,02 | 0,58 | 0,73 | -0,48 | 0,87 | 0,91 | 0,16 | 0,86 | -0,96 | 0,83 | 0,70 |
| c) | -0,15 | -0,45 | 0,69 | 0,33 | 1,00 | -0,93 | 0,81 | 0,68 | 0,68 | -0,00 | 0,61 | 0,52 | 0,25 | 0,61 | -0,35 | 0,64 | 0,63 |
| d) | 0,39 | 0,67 | -0,85 | -0,13 | -0,93 | 1,00 | -0,93 | -0,63 | -0,57 | -0,15 | -0,47 | -0,37 | -0,30 | -0,49 | 0,16 | -0,52 | -0,58 |
| e) | -0,58 | -0,83 | 0,97 | -0,02 | 0,81 | -0,93 | 1,00 | 0,56 | 0,46 | 0,26 | 0,36 | 0,23 | 0,37 | 0,38 | -0,01 | 0,43 | 0,52 |
| f) | 0,26 | -0,11 | 0,41 | 0,58 | 0,68 | -0,63 | 0,56 | 1,00 | 0,95 | 0,13 | 0,90 | 0,86 | 0,29 | 0,90 | -0,64 | 0,92 | 0,84 |
| f1) | 0,41 | 0,04 | 0,30 | 0,73 | 0,68 | -0,57 | 0,46 | 0,95 | 1,00 | -0,20 | 0,95 | 0,93 | 0,44 | 0,96 | -0,75 | 0,97 | **0,93** |
| f2) | -0,49 | -0,46 | 0,31 | -0,48 | -0,00 | -0,15 | 0,26 | 0,13 | -0,20 | 1,00 | -0,18 | -0,22 | -0,48 | -0,21 | 0,36 | -0,19 | -0,30 |
| 3. | 0,53 | 0,19 | 0,18 | 0,87 | 0,61 | -0,47 | 0,36 | 0,90 | 0,95 | -0,18 | 1,00 | 0,99 | 0,27 | 1,00 | -0,88 | 0,99 | 0,88 |
| 4. | 0,64 | 0,32 | 0,06 | 0,91 | 0,52 | -0,37 | 0,23 | 0,86 | 0,93 | -0,22 | 0,99 | 1,00 | 0,23 | 0,99 | -0,92 | 0,97 | 0,84 |
| 5. | -0,05 | -0,24 | 0,36 | 0,16 | 0,25 | -0,30 | 0,37 | 0,29 | 0,44 | -0,48 | 0,27 | 0,23 | 1,00 | 0,35 | -0,11 | 0,38 | 0,55 |
| 6. | 0,52 | 0,17 | 0,21 | 0,86 | 0,61 | -0,49 | 0,38 | 0,90 | 0,96 | -0,21 | 1,00 | 0,99 | 0,35 | 1,00 | -0,87 | 1,00 | 0,90 |
| 7. | -0,76 | -0,52 | 0,16 | -0,96 | -0,35 | 0,16 | -0,01 | -0,64 | -0,75 | 0,36 | -0,88 | -0,92 | -0,11 | -0,87 | 1,00 | -0,83 | -0,68 |
| 8. | 0,47 | 0,11 | 0,26 | 0,83 | 0,64 | -0,52 | 0,43 | 0,92 | 0,97 | -0,19 | 0,99 | 0,97 | 0,38 | 1,00 | -0,83 | 1,00 | 0,91 |
| VAIC | 0,32 | -0,04 | 0,38 | 0,70 | 0,63 | -0,58 | 0,52 | 0,84 | 0,93 | -0,30 | 0,88 | 0,84 | 0,55 | 0,90 | -0,68 | 0,91 | 1,00 |

Legend:
1. Total operating revenue
    a)Net sales revenue
    b) Cost of goods sold
2. Gross profit
    c)Selling and distribution expenses
    d) Administrative expenses
    e) Depreciation, amortization and impairment charges
    f) Net other operating result

f1)Other operating income
f2) Other operating expenses
3.Operating profit (EBIT)
4.EBITDA
5.Financial result
6.Profit before income tax
7.Income tax
8.Net Profit (Loss) for the Period

selected components of financial reports by KGHM Polska Miedź S.A., a publicly traded company, on VAIC. We selected the variables for the analysis by choosing those elements that, in our opinion, should be correlated with VAIC. Hence, these included such variables as employment level and intangible assets. The study found that intellectual capital efficiency is not dependent on the above-mentioned factors, i.e., the number of personnel members hired or the value of intangible assets (insignificant correlation between these variables and VAIC). The main component that affected the coefficient was net result (correlation with VAIC at 0.89). Therefore, what is considered by the coefficient as efficiency is not the number of patents held or improvements made, but the impact of these on the company's financial performance. The second part of the study fo-

cused on the individual components of a profit and loss account with classification of expenses by function. This part explored the fact that corporate profit depended on generated income and costs. Consequently, intellectual capital could help reduce costs or increase profit. Based on the adopted methodology, the study found that, for the analysed company, intellectual capital was generally concentrated around the revenue part in the form of other operating income (correlation at 0.93). There are many factors that can influence this item in the profit and loss account, but these were not analysed in more detail due to the inaccessibility of relevant data.

**Literatura – References**

1. Jemielniak D., Koźmiński A. K. red. nauk. (2012) Zarządzanie wiedzą, Warszawa

2. Kowal B., Kowal D., 2011, The sustainable development management system of hard coal mining enterprises, Polish Journal of Environmental Studies, vol. 20 no. 4A, s. 145–150.

3. Kowal B., Kustra A. (2016)Reporting of sustainable development strategy in energy industry, w: SEED 2016 : The International Conference on the Sustainable Energy and Environment Development : Kraków, Poland, Wydawnictwo Instytutu Zrównoważonej Energetyki, ISBN: 978-83-944254-0-1

4. Lorenc S., Kustra A., (2016) Kreowanie wartości dla interesariuszy jako efekt strategii zrównoważonego rozwoju przedsiębiorstwa, w: Zarządzanie wartością przedsiębiorstw w warunkach niepewności, zmienności i nieprzewidywalności: strategie - finanse - kompetencje: praca zbiorowa / pod red. Marka Jabłońskiego. — Dąbrowa Górnicza: Wyższa Szkoła Biznesu, ISBN: 978-83-64927-99-7.

5. Podobińska-Staniec M. (2018), Selected aspects of non-financial activities reporting of the enterprises, Zeszyty Naukowe Politechniki Śląskiej. Organizacja i Zarządzanie ; ISSN 1641-3466. — z. 131, s. 441–452

6. Pulic A. (2000), VAIC™ - an accounting tool for IC management. International Journal of Technology Management, Volume:20 Pages: 5-8

7. Ustawa z 15 grudnia 2016 r. o zmianie ustawy o rachunkowości, DzU z 2017 r., poz. 61

8. www.kghm.com

9. www.bankier.pl

## Raportowanie finansowe i niefinansowe – próba korelacji wybranych zmiennych

*Niniejszy artykuł został poświęcony badaniu polegającemu na znalezieniu zależności pomiędzy efektywnością wartości kapitału intelektualnego mierzonego za pomocą metody VAIC – (Value Added Intellectual Coefficient) a wybranymi składnikami raportów przedkładanymi przez polskie przedsiębiorstwo górnicze KGHM Polska Miedź S.A. Składniki, które wzięto pod uwagę w badaniu to między innymi: wartości niematerialne i prawne, liczba etatów czy też poziom wyniku finansowego netto spółki. Horyzont czasowy jaki był wzięty pod uwagę w ramach artykułu to okres od roku 2004 do roku 2018 (ostatnie 14 lat).*

*Autorzy artykułu założyli, iż efektywność wartości kapitału intelektualnego powinna być skorelowana ze składnikiem aktywów trwałych w postaci wartości niematerialnych i prawnych, wyniki badań dały jednak rezultaty niezgodne ze wstępnymi założeniami Autorów niniejszego artykułu. Po przeprowadzeniu analizy stwierdzono, iż najwyższy poziom korelacji z efektywnością wartości kapitału intelektualnego mają wyniki finansowe spółki.*

*Słowa kluczowe: kapitał intelektualny, sprawozdawczość finansowa, korelacja*