
Corporate Values of Companies Listed in Warsaw Stock Exchange

Submitted 12/99/20, 1st revision 10/10/20, 2nd revision 12/11/20, accepted 01/12/20

Joanna Żukowska¹ Katarzyna Wardzińska²

Abstract:

Purpose: The purpose of the article is to identify the corporate values of companies listed on Warsaw Stock of Exchange in Poland.

Design/Methodology/Approach: In order to achieve the main goal, 250 Stock Exchange Companies were analysed. More than 50% of the enterprises were examined to form the beginning of the works on distinguishing the key values followed by the companies listed on the Polish stock exchange.

Findings: Identification and typology of corporate values, taking into the account the WIG20, mWIG40 and sWIG80 ratings

Practical Implications: The result of this research is expected to give implication for business actor of all companies operating on the Polish market.

Originality/Value: Identification of the corporate values of companies listed on the Polish Stock Exchange. The classification and grouping of the values with the use of an expert method. Developing rankings of key values and calculation of correlative dependence concerning the distinguished companies. Checking the impact of key corporate values on the position in the ranking of stock exchange quota.

JEL Classification:

Keywords: Corporate values, core values, company values, stock exchange, Poland.

Paper type: Research study.

¹Warsaw School of Economics, Collegium of Business Administration, Institute of Enterprise, Unit of Business Environment, Poland, ORCID ID: orcid.org/0000-0001-9589-3056, e-mail: joanna.zukowska@sgh.waw.pl,

²University of Białystok, Faculty of Economics and Finance, Department of Business Sciences, Institute of Quantitative Methods, Poland, ORCID ID: orcid.org/0000-0003-3906-8814, e-mail: k.wardzinska@uwb.edu.pl.

1. Introduction

The subject of corporate values (called values) is seldom taken up in the research based on Poland (Doligalski, 2015). There are very few papers concerning managing by values – MBV, (Górniak, 2015; Sobiecki, 2014; Jaakson, 2010; Lewandowski, 2010) and they represent a significant research gap. The research, particularly in Poland, usually refers to corporate values in the sense of profit or loss (Samidi *et al.*, 2019; Murni, 2019; Zenkina, 2018; Sucuahi and Cambarihan, 2016; Ziółkowska, 2016; 2013; Waśniewski, 2011; Suszyński, 2007; Jabłoński and Jabłoński, 2007; Gołębiowski and Szczepankowski, 2007; Mills, 2005; Siudak, 2001), not the corporate values recognised at intangible corporate values (Jabłoński and Jabłoński, 2007). The studies are frequently focused on value based management – VBM, (Cokins and Webster, 2020; Sivakumar and Rao, 2020; Burkert, 2013; Bielak, 2010).

The intensification of global research on the corporate values took place in the late 1990's (Collins and Porras, 2008). Collins and Porras searched for the answer to the question about the determinants of the companies' reaching a long-term position of the market leader with their simultaneous stable presence within the most profitable enterprises. The conclusion drawn from the studies was that such advantage was assured thanks to maintaining their own catalogue of values (Collins and Porras, 2008).

The identified research gap inspired the authors to carry out research devoted to the subject of corporate values of companies listed in Warsaw Stock Exchange on the Polish ground. The research question set by the authors concerns the values followed by the companies listed on Giełda Papierów Wartościowych w Warszawie (Warsaw Stock Exchange, Polish abbreviation: GPW)

2. Literature Review

2.1 Values

The authors in Poland mainly took up theoretical research over the values and managing by values. Empirical research in this case is a rarity and, if it takes place, it adopts the form of qualitative – case studies (Ochnik, 2013). Moreover, both theoretical and practical research was carried out in turn of the first decade of the 21st century. The last report devoted to the values - Corporate Values Index is from 2013. According to the results of the above research, Polish companies paid attention to mission and value. Values are defined as “solid conviction that a specific way of action or ultimate purpose of life is individually and socially more attractive than other ways of behaviour or other purposes of life” (Rokeach, 1973), “all that is valuable and desirable, which represents the target of human aspirations” (Lachowski, 2012), “Values represent strong beliefs that people gain through their education in family, at school and within society” (Brătianu, 2008).

They constitute "a set of opinions and values embodied in ideology or philosophy of the organisation and may serve as a guide and method of handling uncertainty related to internally uncontrollable or difficult events" (Schein, 2004). These are "permanent, inviolable principles, truly followed and accepted by the company employees, indicating the way the determined strategy should be performed and the principles the employees should obey with daily and long-term decision making" (Stachowicz-Stanusch, 2007). Values "should determine behaviour, internal conditions and image of the organisation. On the one hand, properly defined, they help promote certain attitudes of the employees and on the other they help build the organisation image consistent with the nature of the business" (Zarębska, 2009). "The values represent the organisation culture component, they are considered to be the state of affairs, the situations regarded to be the best for the whole organisation and those one tends to attain" (Ochnik, 2013). According to Popova *et al.* the theoretical analysis, "the category of "value" can be represented as a multi-component category, expressing the industrial relationships arising from internal and external continuous interaction of cost elements" (Popova *et al.*, 2019).

The corporate system of values is constructed of the targets and values a company aims at; control methods; set of characteristics and behaviours to be reinforced in the employees; patterns of relationships with the environment (Czerska, 2003). Value creation activities are related to business strategy (Pamoengkas, 2020). The lasting and development of a business is not only assured by the awareness of their own major values, but also the consistent management thereof, i.e., transfer of the major values of the organisation from generation to generation and their implementation in every aspect of corporate functioning (Ochnik, 2013; Zarębska, 2009).

Managing by values is focused on the mission, vision, strategy, organisational culture and values (Seeger and Seeger, 2018; Lachowski, 2013). Values help fulfil the corporate mission (Svare, 2015; Lachowski, 2013). Therefore, the authors have asked the following research question: What kind of values are followed by the Warsaw Stock Exchange Companies?

2.2 The Corporate Values Criteria

According to the first Corporate Values Index 2009 report prepared by the Ministry of Economy and PKPP Lewiatan, 29,5% Polish businesses declared to have their own system of values as compared to the simultaneous index of almost 60%, in case of global average (Corporate Values Index, 2009). The report published in 2013 showed the same value in this scope. The survey comprised 360 businesses in Poland. The results showed that the following have been classified as the most important values: quality (36%), innovativeness (31%), client satisfaction (29%), know-how (21%), success (18%), social responsibility (17%), trust (16%), professionalism (13%), environment (13%), honesty (13%) (Corporate Values Index, 2013). The study was to identify the scale of corporate value application to the managing process.

Moreover, it was also to show the differences in approach to the corporate values by companies of various sizes and representing various industries. The principal conclusion drawn from the study is the fact that “managing by values is an essential progress, e.g. in relation to managing by targets and it is a trend of growing significance in contemporary business and modern communication” (Corporate Values Index, 2013). Based on Corporate Values Index Lachowski suggested classification of values into: professional, competitive, behavioural, community, relationship, moral, self-fulfilment, social values (Lachowski, 2013). This was the foundation for asking further research questions by the authors: How can we divide the values followed by the Warsaw Stock Exchange companies?

2.3 The Delphi Method

The literature studies indicate the Delphi method in which the experts aimed at a consensus, to be the expert method (Cisek, 2009; Linstone and Turoff, 1975). “The Delphi method enables us to collect opinions from a group with the opportunity for asynchronous and distant in space interactions, putting stress on individual contribution and one’s own choices to be reflected in the choices made by the group along the path of the repeated process of expressing opinions” (Gawlik, 2016). The application of the Delphi method is reasonable particularly in the case of searching for assessment criteria (MacLeod, Childs, and Heaford 2007; Downie 2004) or gathering expert opinions on the criteria (Hsieh, Chin, and Wu, 2006). An expert must be a specialist with appropriate knowledge in a given discipline. While forming a group of experts the criterion of trustworthyl and efficient solution of a specific problem must be decisive (Remeikiene and Gaspreniene, 2016). According to Zins (2007), and Saaty (1996; 1999) “the precision of decisions and evaluations made by a small group of experts may be recognised to be as trustworthy as evaluation made by a large group”. It was acknowledged that a group of experts fitting within the range between 5 and 9 is the most efficient one (Zins, 2007; Saaty, 1996; 1999). The optimum number of rounds is from two to four (Cisek, 2009; Olson, Tooman, and Leist, 2005). On this foundation the authors asked the next research question. In what way will the classification based on expert knowledge be trustworthy?

2.4 Stock Indexes

The WIG20 is the index of twenty joint stock companies listed in Warsaw Stock Exchange. The basic date of the index is 16.04.1994, while the base value is 1000 points. No more than five companies of a given industry may be listed in it, excluding investment funds. The mWIG40, is the index of medium-size companies listed on Warsaw Stock Exchange, functioning in this form since 16.03.2007. The index always comprises forty companies. It is subject to the same ranking as WIG20, and represents further 40 companies after 20 companies from the WIG20 index. The sWIG80, is a stock index of small companies comprising eighty entities. The index has been functioning in its present form since 16.03.2007 and like mWIG40, represents further companies after those listed on mWIG40 (<http://gpw.pl> 2020-10-

24). On this foundation the authoresses asked the next research question. Is there a correlation between the categories of values followed by the companies and their classification in the groups with stock indexes WIG20, mWIG40 and WIG80?

The literature studies showed that in “Polish conditions on the stock exchange market the idea of managing by corporate value, i.e. the maximisation of the corporate value can be boiled down to maximisation of value for the shareholders”. The meaning of value is focused on the economic corporate value (Wibowo and Ghazali, 2018; Bielak, 2010).

On this foundation and in light of the identified research gap, the authors asked the following research questions. What are the most important values for all the Warsaw Stock Exchange Companies and which of them for the successful companies on the stock exchange market, the leaders in the stock exchange ranking, i.e., the companies with WIG20, mWIG40 and sWIG80 indexes?

3. Methodological Backgrounds

The data have been collected from the websites of the companies listed in the Warsaw Stock Exchange, the materials concerning a company published on the Internet and the website of Warsaw Stock Exchange. The data were collected between 1.07.2020 and 10.10.2020. All the website bookmarks have been analysed in search for the declared values. The studies showed that most of the values were published in the bookmarks: about us, social business responsibility (sustained development) and career. The companies rarely publish information on values in the bookmarks: for investors, ethical code, code of conduct. No values have been identified elsewhere on the Internet, however, the studies showed that if the companies do not publish information on values on their own website, then such information is not published anywhere else.

The next step included statement of WIG20, mWIG40 and sWIG80 indexes as at 10.10.2020 for the company classification purpose. Distinguishing of the groups enabled the verification of the research question concerning the correlation between the categories of values and occupation of the specific positions within the Warsaw Stock Exchange ranking.

The study comprised 250 businesses. They represent more than fifty per cent of all the Warsaw Stock Exchange companies. A database has been formed including 250 objects and 134 variables. The first characteristic distinguished was their inclusion in the stock exchange ranking group of companies. The values of the characteristics were the WIG20, mWIG40, sWIG80 indexes and “other”. The further 133 variables determined the value that the company may follow and assumed 0 – when a given value is irrelevant for the company (was not indicated by the company), 1 – when it is relevant for the company (i.e. the authoresses recorded it during the study). The

fact of indicating a value on the company website has been assumed the criterion of relevance for the company.

4. The Empirical Results

4.1 Raw Data Analysis

Two hundred and fifty companies listed in the Warsaw Stock Exchange were analysed as respondents. They included entities with websites on which no information was found that could enable the identification of the values they follow. The number of such companies reached 83, which represents about 33% of all the businesses analysed. The companies that have not disclosed the values they follow in public, most frequently included companies dealing in investments (10). The leading industries were: games (7), real property industry (9), divided into property rental (5) and property for sale (4) (Appendix 2). The studies show that the selected sectors pay no attention to the key corporate values. Based on the data collected a frequency distribution of discrete data has been built to present the distribution of frequency for specific variants (Table 1).

Table 1. Number of values followed by the Warsaw Stock Exchange companies

No. of values indicated	1	2	3	4	5	6	7	8
Frequency	0.332	0.036	0.076	0.124	0.128	0.060	0,048	0,016

Source: Own calculation.

The situation in which the authoresses found no information on the values followed by a company occurred most frequently. Among the other companies 4 values were mentioned most frequently. Nine companies mentioned only one value. The companies included those that determined their values more extensively, indicating even 8 values (4 out of the respondents). The entities that indicated at least one value (167 companies) have been left for further analysis. The median for this part of the companies was 4. This means that half of the enterprises follow no more than 4 values and the further 50% of the companies indicated no less than 4 values.

Further, the percentage was calculated for companies belonging to particular Warsaw Stock Exchange index groups, with no value identified on their websites, which has given the following results: WIG20 – 7%, mWIG40 – 21%, sWIG80 – 17%, “other” – 42%. Only one of the leading companies in the Warsaw Stock Exchange ranking had no defined values on their website. 40% of the group of “other” companies show no values they follow on their websites. The detailed analysis of the situation, i.e. the correlation of the values shown and the company belonging to a rating group has been presented further in this paper.

Simultaneously the frequency of the specific values has been analysed. Due to the number of characteristics (133 variables specified in the appendix to this paper) the

paper contains neither the table of frequency, nor the diagrams for all the characteristics. Table 2 presents the first ten only.

Table 2. The values most frequently mentioned on the websites of the Warsaw Stock Exchange companies

Value	Quality	Innovativeness	Client	Employee	CSR, care for environment	Safety	Experience	Ethics, professionalism	Sustained development, respect	Honesty, responsibility
No. of companies	46	35	30	27	22	21	18	17	16	15

Source: Own calculation.

Quality was among the most frequently indicated values, as many as 46 of the respondent companies mentioned it on their website. The further values that followed were: innovativeness, client, employee, CSR and care for environment. The values indicated less than frequently than 20 times were: experience, ethics, professionalism, sustained development, respect, honesty and responsibility.

The data analysed did not include such values as: autonomy, consulting, feedback, life work balance, perfection, pleasure, self-organisation, financial stability, faith. The frequency of these variables was zero. Therefore they were not considered in further analysis. Due to the research questions asked, the respondent companies have been classified. The variable grouping the data was their belongingness to a particular Warsaw Stock Exchange index ranking. The data have been set in Table 3.

Table 3. The structure of the companies according to the Warsaw Stock Exchange Index rankings

WIG20	mWIG40	sWIG	other
0.06	0.11	0.18	0.65

Source: Own calculation.

The most numerous group in the sample were the companies excluded from the Warsaw Stock Exchange ranking – “other” (65%). The lowest number of companies was in the group occupying high ranks in the Warsaw Stock Exchange, belonging to the WIG20 index.

4.2 Assumption Analysis

Due to the specific nature of data (the large number of variables, low numbers of some characteristics) measures were taken to divide the values into the categories presented in table 4. The classification was made with the use of the Delphi method.

It included the values not indicated by the respondent companies. This is the result of the will to continue the commenced studies and compare the conclusions to those obtained upon identification of values for all the Warsaw Stock Exchange companies (such characteristics might appear with the companies not examined so far). In the calculations performed they had no impact on the results obtained, due to their zero frequencies.

Six experts participated in the study, representing the Managing and Quality discipline, specialising at strategic management, organisation culture and corporate values. The study comprised three rounds of the Delphi method, as a result a consensus was developed concerning the occurrence of four major categories with subcategories identified within to include the qualified values.

Table 4. Classification of values by category.

Category	Subcategory	Values
E, DEVELOPMENT AND INNOVATION	innovativeness	innovativeness, creativity, technology, inspiration, exceptionalism
	knowledge	experience, consulting, competences, knowledge
	perfection and development	quality, safety, development, professionalism, self-improvement, research & development, life quality, zero accidents, operating perfection, future, perfection
PEOPLE	employee	employee, friendly conditions for employees, satisfaction with job, commitment, life work balance, employee development, care for a good workplace, best job creation
	people	people, help to people, community development, care for society, assistance to those in need, social independence,
	trust	loyalty, truth, sincerity, faith, trustworthiness, openness, trust
	clients and partners	client, creating values for client, supply chain, client service, relationships with suppliers, relationships with clients, market orientation on client, client satisfaction, care about market, market knowledge, appreciation and respect of stakeholders,
	respect	respect, human rights respect, fair play
	co-operation	teamwork, knowledge share, partnership, no corporate nature, co-operation, relationships, support, integration, solidarity
	communication	feedback, legible communication, understanding, transparency, clarity, simplicity
ENTREPRENEURSHIP AND MANAGEMENT	leadership	efficient managing, delegating authorisations, leadership, supporting changes
	entrepreneurship	entrepreneurship, pro-activity, passion, ambition, strength, courage, ambitious targets
	positive attitude	pleasure, joy, enthusiasm, positive energy
	result	orientation on results, assistance to business at gaining profit, mission, vision, effectiveness, dexterity, stability, financial stability

	organising	objectivity, reliability, efficiency, complexity, flexibility, autonomy, functionality, fastness, self-organisation, order
CSR AND SUSTAINED DEVELOPMENT	responsibility and sustained development	CSR, responsible development, responsibility, sustained development, environmental responsibility, supporting internal and sustained growth, equality, diversity
	environment	ecology, care for environment, help to animals, care for surroundings, care for resources, locally and globally, globally, location
	ethics	ethics, honesty, law, legal standards, moral standards, tradition, justice, modesty

Source: Own study.

As a result of the classification four major groups of values have been distinguished, namely: knowledge, development and innovativeness, people; entrepreneurship and managing; CSR and sustained development. The largest number of values occurred in the group „people” – 53 characteristics. The least frequent category was “knowledge, development and innovativeness”, which included 21 variables. The percentage of value occurrence in the particular categories was presented in Table 5.

Table 5. *The structure of the companies according to the Warsaw Stock Exchange Index rankings*

Knowledge, development and innovativeness	CSR and sustained development	Entrepreneurship and managing	People
0.29	0.23	0.13	0.35

Source: Own calculation.

In the case of classification by the distinguished eighteen subcategories, the most frequent group was “perfection and development”, while the least numerous one was “the positive attitude” (Table 6).

Table 6. *Frequency of occurrence of values from a subcategory among the respondent companies*

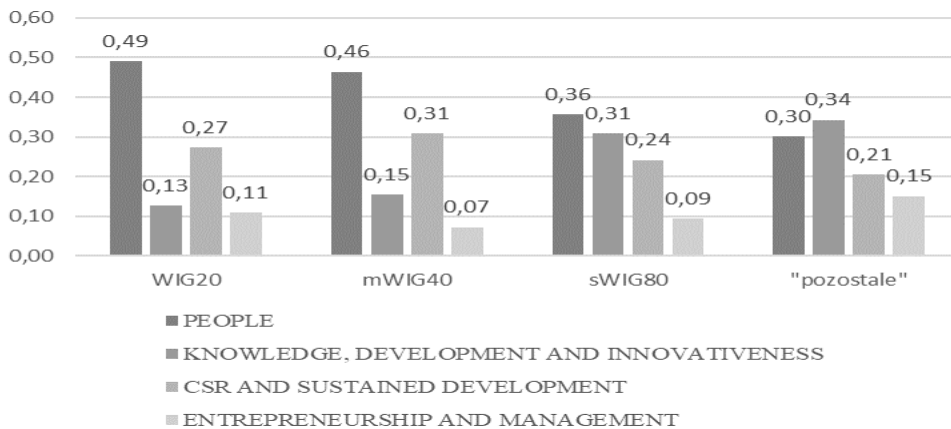
Subcategory	Frequency
Perfection and development	0.16
Responsibility and sustained development	0.11
Innovativeness	0.08
Clients and partners	0.08
Ethics	0.07
Cooperation	0.07
Employee	0.06
People	0.06
Environment	0.05
Knowledge	0.05
Entrepreneurship	0.04

Trust	0.03
Communication	0.03
Organising	0.03
Result	0.03
Respect	0.02
Leadership	0.02
Positive attitude	0.01

Source: Own calculation.

For the purposes of further analyses, a diagram of category structure in the particular groups of companies has been developed (Figure 1).

Figure 1. Frequency of specific category values occurrence in the particular groups



Source: Own calculation.

The “people” category is the most frequent one in almost every group. Only in the group of companies that have no stock exchange index the category of “people” came second. The values from the group “knowledge, development and innovativeness” occurred in this group of companies most frequently. The category “entrepreneurship and management” was the lowest frequency in all the groups.

4.3 Ranking Analysis

This part of the paper includes analysis of value category ratings obtained in the particular groups of companies, namely: WIG20 (13 respondents), mWIG40 (22 respondents), sWIG80 (37 respondents), “other” i.e. not belonging to the other groups (95 respondents). Table 7 presents the positions of categories in the groups of companies out of particular ratings as compared to the general rating, i.e. the one obtained for all the respondent entities.

Table 7. Positions in the categories for groups of companies

Category	position in the general rating	WIG20 group	mWIG40 group	sWIG80 group	„other" group
People	1	1	1	1	2
Knowledge, development and innovativeness	2	3	3	2	1
CSR and sustained development	3	2	2	3	3
Entrepreneurship and managing	4	4	4	4	4

Source: Own calculation.

Almost all the groups (except “other”) the unchangeable, top position in the rating is occupied by the category of “people”. All the groups of companies classified the category „entrepreneurship and management” at the bottom position. The categories “knowledge, development and innovativeness” and “CRS and sustained development” are rated on the 2nd and 3rd position, respectively. The comparison suggests that the Warsaw Stock Exchange companies most frequently follow the “people” category. The most seldom values were those from the “entrepreneurship and management” category and all the groups agreed in this question.

To make the analysis more detailed, the convergence of the ratings by subcategory was examined by subcategory. For this purpose the positions of subcategories in the particular groups were defined and the Spearman Rank Correlation Coefficient was calculated. In case of the same frequency the identical rank was attributed to a particular category (observations with equally ranked variable, so-called tied ranks), which was equal to the average of their subsequent numbers (therefore, there are ranks with non-integer values). The comparison is presented in Table 8.

Table 8. Positions in the Warsaw Stock Exchange rating groups and subcategories in the groups of companies

Subcategory	position in the general	WIG20 group	mWIG40 group	sWIG80 group	„other" group
Perfection and development	1	8.5	4.5	1	1
Responsibility and sustained development	2	3.5	2.5	2	2
Innovativeness	3	6	6,5	3	3
Clients and partners	4	3.5	2.5	10	4
Ethics	5	3.5	1	6.5	7
Co-operation	6	8.5	9	5	6
Employee	7	1	6.5	6.5	8

People	8	3.5	9	4	13.5
Environment	9	8.5	9	8.5	10.5
Knowledge	10	17.5	16.5	12	5
Entrepreneurship	11	11.5	11.5	8.5	10.5
Trust	12	14.5	4.5	11	16
Communication	13	8.5	13.5	15.5	13.5
Organising	14	14.5	16.5	15.5	9
Respect	15.5	14.5	11.5	13	15
Result	15.5	11.5	16.5	15.5	12
Leadership	17	17.5	13.5	15.5	17
Positive attitude	18	14.5	16.5	18	18

Source: Own calculation.

Another step was to examine the correlation between the particular ratings and the general rating (obtained without the division into groups). The results obtained have been presented in Table 9.

Table 9. *The value of the Spearman correlation coefficient ratings of particular Warsaw Stock Exchange index and the general rating*

	WIG20	mWIG40	sWIG	other
Total rating	0.689	0.794	0.950	0.880

Source: Own calculation.

The sWIG80 rating is the closest to the general – the coefficient value reached 0,95 which proves almost overall positive correlation of the said ratings. The more frequent was the given value in the general rating, the more frequently it occurred in the companies from the sWIG80 rating. Sorting out the values in the respondent groups is very similar thereto. The Spearman rank correlation coefficient was calculated for examining the dependence.

Table 10. *The value of the Spearman correlation coefficient ratings of particular Warsaw Stock Exchange index and the general rating*

	WIG20	mWIG40	sWIG	other
WIG20	1	0.722	0.693	0.518
mWIG40	0.721	1	0.754	0.520
sWIG	0.693	0.754	1	0.715
other	0.518	0.520	0.715	1

Source: Own calculation.

There is a high positive correlation between the ranks in the sWIG80, mWIG40 and WIG20 groups (the Spearman rank correlation coefficient on the level around 0,7). The correlation between the rating obtained for the companies not belonging to the top 140 Warsaw Stock Exchange companies (“other”) and rating of companies of the WIG40 and WIG20 groups (for which the Spearman rank correlation coefficient

is on the level around 0,5) is moderate. An exception in this case is the correlation between the WIG80 rating and that of the other companies for which a high positive correlation was noted (0,715).

While analysing the results, we can talk about a high or moderate rank correlation, which may prove a similar sorting of values followed by the Warsaw Stock Exchange Companies, r whether or not they are among the best ones. The category “people” appeared on the top of the ratings, while “entrepreneurship and managing” indicated in the end.

4.4 Studying the Correlations

Another analysis was carried out in order to answer the last research question – the chi square test, which was to test the correlations between the key values impact on the stock exchange index held (or the lack of it). The following hypotheses have been verified. H0: There is no correlation between the values of the particular categories followed by the companies and the stock exchange indexes they hold; H1: There is a correlation between the values of the particular categories followed by the companies and the stock exchange indexes they hold. Contingency tables have been built in order to verify the hypotheses and the chi square statistics was calculated and it amounted to 50,67.

With the assumed relevance level $\alpha = 0,01$ and 9 degrees of freedom, the value from the statistics distribution table the chi-square=21,67. Due to the fact that the value obtained is larger than the value calculated ($50,67 > 21,67$), the zero hypothesis is rejected in favour of the alternative hypothesis, according to which there is a correlation between following the values from the particular categories by the companies and the stock exchange index held by them. There is a possibility that among the companies analysed the values they follow affect their position among the best companies (the WIG20, mWIG40, sWIG80 indexes). However, this is a conclusion that requires in-depth research and certainly the analysis of all the Warsaw Stock Exchange companies.

Table 11. Contingency table

	WIG20	mWIG40	sWIG	other	Sume
Entrepreneurship and managing	14	7	6	58	85
CSR and sustained Knowledge,	36	30	15	79	160
development and innovativeness	46	15	7	132	200
People	53	45	27	116	241
Sume	149	97	55	385	686

Source: Own calculation.

To find the answer to the last question asked: What similarities and differences between the values declared by smart enterprises and those not classified therein can be identified, the Delphi qualitative method was applied, the justifiability thereof was indicated in the above considerations.

Considering the criterion of knowledge declared as a characteristic of a smart enterprise we should recognise that the values from the category knowledge, development and innovativeness occur in vast majority of the respondent companies. This is largely confirmed by the quantitative studies. Therefore, it was acknowledged that the respondent companies should be recognised as smart organisations. At the same time the enterprises excluded from the said group according to the indicated criterion were not identified, so the search for the answer to the question within the group of companies listed on the Warsaw Stock Exchange is pointless.

5. Conclusions

The studies proved that information on values mostly published in the bookmarks: about us, social business responsibility (sustained development) and career. They hardly ever publish information on values in the bookmarks: for investors, the ethical code, the conduct code.

In the case of 33% of the companies analysed it appeared that they do not indicate any values. The particular attention should be drawn to the fact that they belonged to the same industries, i.e. investment activity, games and real property. Upon the research it has been proven that the classification with the use of expert knowledge, the Delphi method, will be trustworthy. Four major groups of values have been distinguished, namely: knowledge, development and innovativeness; entrepreneurship and managing; CSR and sustained development. Most of the values appeared in the “people” group while the least frequent was “knowledge, development and innovativeness”. In the case of classification by subcategories, the most frequent was the “perfection and development” group, while the least numerous one was “the positive attitude”.

Thanks to dividing the companies into groups by the WIG20, mWIG40 and sWIG80 indexes it was possible to analyse the sorting of the values and study the correlations between the categories of the values that the companies follow and the stock exchange indexes they hold. Among the companies with the WIG20 index, only one did not declare any values. In the case of companies with the WIG20, mWIG40, sWIG80 indexes, the most frequent values were: quality, innovativeness, client, employee, CSR, care for environment, experience, ethics, professionalism, sustained development, respect, honesty and responsibility. In almost all the groups the unchangeable, top position in the rating was occupied by the “people” category. The category indicated on the lowest position was „entrepreneurship and managing”.

As a result of examining the correlations between the particular ratings and the general rating, the results obtained confirmed similar sorting of values within the distinguished groups. It is possible that whether or not they are among the best companies, the way they sort the particular categories of values is similar. However, the studies have shown that it was significant whether the categories of values the respondent companies follow affect their position among the best Warsaw Stock Exchange companies (the WIG20, mWIG40, sWIG80 indexes). Yet, this conclusion requires more in-depth research.

6. Limitations and Future Research

The large number of characteristics compared to the number of units was a restriction in this study. Therefore, their classification was made and categories of values distinguished. At the same time, it needs to be emphasised that the authoresses' research is in progress and they have analysed data for most, but not all the companies listed on the Warsaw Stock Exchange. The results obtained certainly represent a starting point for evaluation of the present trends in the values followed by the companies of the Warsaw Stock Exchange, while the authoresses see the need for further studies, particularly to analyse all the companies listed on the Warsaw Stock Exchange.

Moreover, the analyses by the business size and industries they represent and the values they follow seem to be significant. The analysis of the results obtained and their comparison to the results received from the Corporate Values Index would also become an interesting and useful direction. Another step of immense importance would be to expand the analyses by other countries and carry out an international comparative research.

References:

- Bielak, B. 2010. Systemy VBM i zysk ekonomiczny. Projektowanie, wdrazanie, stosowanie. POLTEX, Warszawa.
- Brătianu, C., Bălănescu, G.V. 2008. Vision, Mission And Corporate Values. A Comparative Analysis of the Top 50 U.S. Companies, 3(3), 19-38.
- Burkert, M. 2013. Differences in the sophistication of Value-based Management–The role of top executives. *Management Accounting Research*, 24(1), 3-22.
- Cisek, S. 2009. Metoda delficka w badaniach nauki o informacji i bibliotekoznawstwa w XXI wieku. *Zagadnienia Informatyki Naukowej* 1(93), 25-32.
- Collins, J.M., Porras, J.I. 2008. Wizjonerskie organizacje. Skuteczne praktyki najlepszych z najlepszych, MT Biznes, Warszawa.
- Czerska, M. 2003. Zmiana kulturowa w organizacji. Wyzwanie dla współczesnego menedżera. Difin, Warszawa.
- Doligalski, T., Zaborek, P., Sysko-Romańczuk, S. 2015. Value Proposition and Firm Performance: Segmentation of Polish Online Companies, *International Journal of Business Performance Management*, 16(2/3), 133-148.

- Downie, J.S. 2004. The Scientific Evaluation of Music Information Retrieval Systems: Foundations and Future. *Computer Music Journal* 28(2), 12-23.
- Gawlik, R. 2016. Stratyfikacja próby badawczej i dobór ekspertów na przykładzie modelu decyzyjnego opartego na metodzie AHP. *Studia i Materiały Wydziału Zarządzania i Administracji Wyższej Szkoły Pedagogicznej im. Jana Kochanowskiego w Kielcach* 20(3), 193-200.
- Gołębiowski, G., Szczepankowski, P. 2007. *Analiza wartości przedsiębiorstwa*, Wydawnictwo Difin, Warszawa.
- Górniak, L. 2015. Zarządzanie przez wartości jako metoda angażowania pracowników. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie*, 944(8), 101-116.
- Hsieh, L., Chin, J., Wu, M. 2006. Performance Evaluation for University Electronic Libraries in Taiwan. *The Electronic Library* 24(2), 212-224.
- <http://gpw.pl/>
- Jaakson, K. 2010. Management by values: are some values better than others?, *Journal of Management Development*, 29(9), 795-806.
- Jabłoński, M., Jabłoński, A. 2007. Kluczowe miary biznesowe w budowie wartości firmy. *Zeszyty Naukowe Wyższej Szkoły Humanitas. Zarządzanie*, 2, 69-76.
- Lachowski, S. 2012. *Droga ważniejsza niż cel. Wartości w życiu i biznesie*. EMKA, Warszawa.
- Lewandowski, R.A. 2010. Zarządzanie przez wartości w organizacjach ochrony zdrowia, *Współczesne Zarządzanie - Kwartalnik Środowisk Naukowych i Liderów Biznesu*, 2, 117-127.
- Linstone, H.A., Turoff, M. 1975. The Delphi Method: Techniques and Applications. *Journal of Marketing Research* 18(3).
- Marcinkowska, M. *Kształtowanie wartości firmy*, Wydawnictwo. PWN, Warszawa.
- McLeod, J., Childs, S., Heaford, S. 2007. Records Management Capacity and Compliance Toolkits: a Critical Assessment. *Records Management Journal* 17(3), 216-232.
- Mills, R.W. 2005. Dynamika wartości przedsiębiorstwa dla udziałowców, zasady i praktyka analizy wartości strategicznej. *Wydawnictwa ODDK, Gdańsk*.
- Murni, S. 2019. The Role of EVA in Determining Company's Value through the Ownership Structure and Internal Factors. *European Research Studies Journal*, XXII(3), 231-245.
- Ochnik, M. 2013. Zarządzanie poprzez wartości w firmie Ochnik. *Organizacja i Zarządzanie*, 2(22), 113-136.
- Olson, C.A. Tooman, T.R., Leist, J.C. 2005. Contents of a Core Library in Continuing Medical Education: A Delphi Study. *Journal of Continuing Education in the Health Professions*, 25(4), 278-288.
- Popova, L.V., Maslova, I.A., Korostelkina, I.A., Dedkova, E.G., Maslov, B.G., Lozhkina, S.L. 2019. Value Formation of Innovative Product: A Way to Commercialization. *European Research Studies Journal*, XXII(2), 244-253.
- Remeikiene, R., Gaspareniene, L., 2016. Evaluation of the impact of the EU structural support on the competitiveness of Lithuanian economics. *Business, Management and Education*, 14(2), 74-88.
- Rokeach, M. 1973, *The Nature of Human Values*. Free Press, New York.
- Rosati, D. 2010. Przyczyny i mechanizm kryzysu finansowego w USA w latach 2007-2009, *Kołodko G.W. (red.): Globalizacja, kryzys i co dalej?* ed. Kołodko, G.W., Poltext, Warszawa, 130-131.
- Saaty, T.L. 1996. *Multicriteria Decision Making*. Pittsburgh, PA, RWS Publications.
- Saaty, T.L. 1999. *Decision Making for Leaders: The Analytic Hierarchy Process for Decisions in a Complex World*, 3rd rev. ed. Pittsburgh, PA, RWS Publications.

- Samidi, Primiana, I., Cahyandito, M.F., Febrian, E. 2019. Effect of Business Unit Performance on Company Value. *European Research Studies Journal*, XXII(3), 51-58.
- Schein, E.H. 2004. *Organizational culture and leadership*. 3rd edition. San Francisco, Jossey-Bass. A Wiley Imprint.
- Seeger, M.W., Seeger, H.S. 2018. *Core values*. Wiley Online Library.
- Siudak, M. 2001. *Zarządzanie wartością przedsiębiorstwa*. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa.
- Sivakumar, N., Rao, U.S. 2020. Corporate vision and value based management. *AIMS International Conference on Management*.
- Sobiecki, G. 2014. Krytyczna ocena teorii zarządzania przez wartości, *Studia i Prace Kolegium Zarządzania i Finansów / Szkoła Główna Handlowa*, 140, 145-162.
- Stachowicz-Stanusch, A. 2007. *Potęga wartości. Jak zbudować nieśmiertelną firmę*. Onepress, Gliwice.
- Sucuachi, W., Cambariban, J.M. 2016. Influence of Profitability to the Firm Value of Diversified Companies in the Philippines. *Accounting and Finance Research*, Vol. 5, No. 2, 149-153.
- Suszyński, C. 2007. *Przedsiębiorstwo, wartość, zarządzanie*. PWE, Warszawa.
- Svare, H. 2015. Finding Core Values in Company Narratives. *The Socratic Handbook*, E.D. Weiss, M.N., Lit Verlag, 245-260.
- Waśniewski, P. 2011. Zarządzanie wartością przedsiębiorstwa jako narzędzie sterowania jego działalnością, *Studia i prace wydziału nauk ekonomicznych i zarządzania*, 21, 117-134.
- Webster, W.W., Cokins, G. 2020. *Value-Based Management in Government*. John Wiley & Sons.
- Wibowo, A.S., Ghozali, I. 2018. Does Value Creation Drives Growth Illusion? An Evidence from Indonesia Stock Exchange. *European Research Studies Journal*, Volume XXI, Issue 1, 491-506.
- Zarębska, A. 2009. *Identyfikacja tożsamości organizacyjnej w zarządzaniu przedsiębiorstwem*. Difin, Warszawa.
- Zenkina, I.V. 2018. Global Promotion of Integrated Reporting by Enhancing its Informative and Analytical Value for Stakeholders. *European Research Studies Journal*, XXI(2), 518-530.
- Zins, Ch. 2007. Knowledge Map of Information Science. *Journal of the American Society for Information Science and Technology*, 58(4), 526-535.
- Ziółkowska, B. 2013. *Zarządzanie procesami tworzenia wartości w przedsiębiorstwie. Perspektywa wirtualizacji*. Wydawnictwo. Politechniki Częstochowskiej, Częstochowa.
- Ziółkowska, B. 2016. Wartość przedsiębiorstwa i jej determinanty w zarządzaniu współczesnymi przedsiębiorstwami. *Studia i Prace WNEiZ US*, 44(2), 93-104.

Annex:**Table 1.** *The characteristics (values) analysed*

Quality, Relationships, Pleasure, Innovativeness Satisfaction with job, Future, Client, Efficient, managing, Leadership, Employee, Transparency, Joy, CSR, Care for surroundings, Relationships with suppliers, Safety, Care for resources, Relationships with clients, Responsible development, Knowledge, Development of employees, Experience, Supporting changes, Equality, Responsibility, Commitment, Diversity, Professionalism, Zero accidents, Market orientation on client, Technology, Understanding, Objectivity, Honesty, Ambitious targets, Reliability, Ethics, Autonomy, Self-organising, People, Being global, Client satisfaction, Passion, Clear communication, Strength, Law, Delegating authorisations, Modesty, Entrepreneurship, Consulting, Effectiveness, Respect, Operating perfection, Solidarity, Care for society, Efficiency, Justice, Care for environment, Enthusiasm, Stability, Co-operation, Fair play, Financial stability, Sustained development, Functionality, Moral standards, Self-improvement, Feedback Sincerity, Sharing knowledge, Innovativeness, Fastness, Ecology, Inspiration, Tradition, Openness, Integration, Tradition and innovations, Partnership, Life quality, Care for a good workplace, Helping people, Competence, Care for market, Teamwork Complexity, Creating best jobs, Development, Creating values for clients, Appreciation and respect by stakeholders, Community development, Business culture, Faith, Tolerance, Life work balance, Trustworthiness, Vision, Location, Sensitiveness, Trust, Locally and globally, Support, Ambition, Supply chain, Supporting internal and sustained development, Research and development, Social mission, Exceptionality, Lack of corporate nature, Independence, Market knowledge, Flexibility, Legal standards, Dexterity, Creativity, Client service, Proactivity, Loyalty, Environmental responsibility, Product, Courage Orientation on results, Simplicity, Helping people in need, Assistance to business in gaining profit, Clarity, Helping animals, Perfectionism, Order, Respecting human rights, Positive energy, Truth, Friendly conditions for employees.

Table 2. *List of industries for the companies that did not present any values*

Industry	No. of companies	Frequency	Product
investments	1	10	10
games	1	7	7
rental of real property	1	5	5
sales of real property	1	4	4
commercial banks, software, medical equipment and materials, mechanical equipment, business services, financial agents	6	3	18
electrical equipment, hotels and restaurants, construction materials, real property – other, clothes and footwear, pharmaceutical production, radio and television, publishers, metallurgical products	9	2	18
construction – other, general construction, industrial construction, chemicals, power generation, stock exchange and stock brokers, coal mining, hotels and restaurants – franchise, civil and water engineering, media – other, automotive – other, web portals, capital market – other, electrical and electronic equipment, computer hardware, IT systems, telecommunication, electrical devices, receivables, managing assets, food	21	1	21
		Total	83