

## CONDITIONS OF MANAGEMENT BY VALUES IN MINING COMPANIES

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**ABSTRACT:** Authors try to answer the question, what are the key success factors of managing the mining enterprise. Modern management methods were analyzed in the context of the mining industry, operating in challenging economic conditions in markets that are increasingly more global, complex, professionally demanding and constantly changing. The article outlines the approach that modern management methods, especially Management by Values (MBV), understood as defining key goals of the company and stating what core values define the company's identity, leads to its stable growth. The authors present the results of a survey conducted in a mining company with the use of the Organizational Culture Assessment Instrument (OCAI) developed by Kim Cameron and Robert Quinn. Based on this example it is possible to suppose that mining companies do not have a dominant type of culture but two of these types (market and hierarchy) are stronger than others because of conditions in which they operate (e.g. law regulations, normalization). First of all, however, the key organisation values in mining are focused on stability and control - safety, people, responsibility and trust. The relations between values and efficiency presented in the article, suggest that MBV can be a good method in long term management that is oriented on the value of the organisation's economic growth.

**KEYWORDS:** Management by values, mining industry

### INTRODUCTION

Implementation of new techniques and technologies changes a company's system of operation very significantly. Changes that can be observed constitute in a way an answer to the question what to do if we want our business organization not only to bring profits but also to multiply its value by means of its development and adaptation to the existing conditions. This issue is connected with expectations from managers (leaders) as well as industry-related scientific and research institutions while in this case the industry in question is mining. Researchers had to face new challenges created on the basis of new needs and, in search of regularities and correlations, they started creating theories and systems in order to understand corporate behavior better. Starting from time, which is an incredibly valuable asset as it is lost irrevocably, nowadays we also manage quality, risk, communication, projects by means of objectives, instructions, competences and processes. Contemporary managers often wonder how to find an axis, a center of gravity which could be their support in order that undertaken actions can be meaningful and ensure efficient achievement of assumed goals. The answer to this question can be found thanks to examples provided by the best, visionary organizations and their founders who claim: "The only truly reliable source of stability is a stronger inner core and the willingness to change and

adapt everything except that core...it is better to understand who you are than where you are going – for where you are going will almost certainly change" [2]. In consideration of the above, the said core can be values acknowledged by the organization and its employees, forming a given company's socio-cultural identity that can and should be consciously developed.

This process consists of creating individual behavior of the organization's members in order to achieve the assumed goals, most commonly defined in the company's vision and strategy [10]. The majority of companies listed as developed and managed in order to last are these operating in industries of which high level of innovativeness is naturally characteristic. Pharmaceutical, electronics or car industry are determined by scientific discoveries or technological revolutions. Does it mean that industrial sectors that have so far seemed less dependent on ongoing changes in the world of science, these based on more traditional manufacturing methods, cannot be managed in a modern manner? Mining companies, usually operating in highly particular conditions, very strictly defined by a number of regulations, are limited mainly by its size and availability of one of its crucial and most valuable resources, namely of raw materials. As they are strongly traditional and usually closely linked with their region, they seem to be naturally based on values. We directly

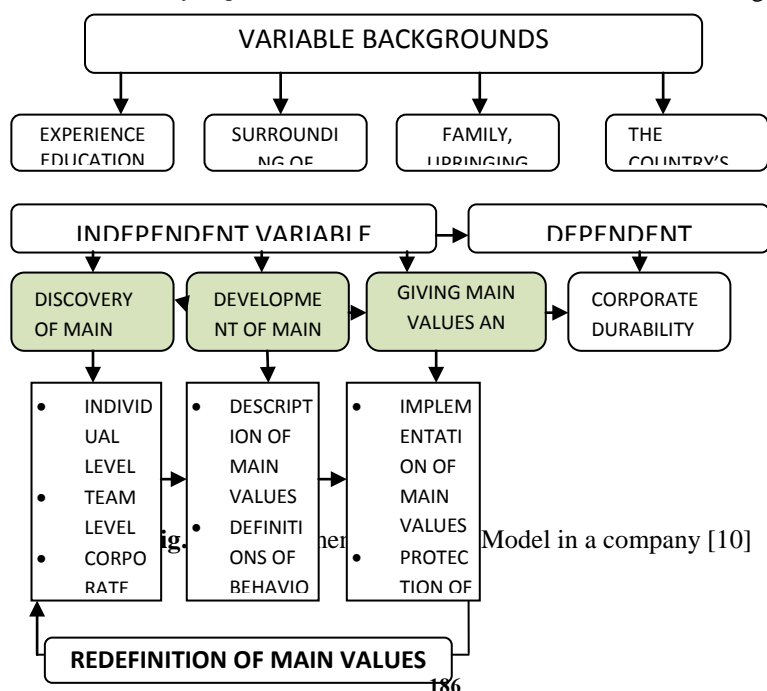
associate them with tradition, collective celebration of a successful, i.e. safe, year, work ethos, sense of social bounds and importance of team work which is often decisive for the group security. Loyalty, respect for natural forces, authority and leadership of experienced workers are only some of values present in so far homogenous mining culture. Changes on the market of raw materials affect also Polish mining industry, which

undergoes a number of often painful transformations, but it still constitutes one of the most importance economy branches. While analyzing the essence of modern approach to the method of management by values, the authors of this article attempt to answer the question whether or not the particularity of mining companies makes them suited to implement and use it [6].

### Management by values

Constant changes in the corporate environment are the reason why managers must modify their modus operandi in order to satisfy current needs. At the beginning of the 20th century, Management by Instruction (MBI) was considered as appropriate and adequate manner to run a business. Slower pace of changes let the ideas of management develop and spread slowly. In the sixties, changes became quicker and it was necessary to act more flexibly. The introduction of Management by Objectives (MBO) let managers choose their own direction and strategy. However, when changes in the surrounding became more intense (global competition and influence of technologies), MBO proved insufficient in a fast-paced, globalized world [12]. Nowadays organizations are seen as complex and dynamic systems existing in the world of constant changes and interactions with the environment. Previous studies demonstrated that the key to understanding of such systems is getting to know thoroughly the values incorporated in each system. Value systems are motivators that affect behavior of individuals, organizations and society and that are most likely to influence directly the operation of an organization and thus its efficiency. It seems crucial to identify values existing in a given organization. Do they vary depending on the type of a company or industry that it represents? Some of them are definitely universal and so are conduct codes of companies who succeed and stay afloat in marketplace despite its ongoing changes. According to the research studies carried out by J. Collins and J. Porras, a visionary organization is the one

which has been operating for dozens of years, which has been successful during many product life cycles and many generations of active leaders [2]. Among repetitive supreme ideologies (main values) of visionary organizations the following can be quoted: innovativeness, attention to and concern for the customer, honesty and respect, continuous improvement, people (as the most valuable asset), hard work. What can be surprising is that there is no reference to direct profit-orientation! This is because such an organization cares mainly about continuity of their supreme values and changes them quite seldom. They constitute a foundation for it which is not subject to trends or fashions, which does not mean that such organizations are not very progressive in most cases. It is creating the common value and not profit in the narrow sense of the word that should bring about a new wave of innovation and enhance efficiency of the global economy [8]. In reference to an organization, values, also defined as rules, norms or standards, can be described as a specific group of publically declared values or ideas that are acknowledged by most members a given organization and which are considered as the most essential and crucial for its durability and development [10]. Values motivate each of us, however, it is a subconscious process most frequently. Making others aware of values by means of their identification, development, giving them an institutional aspect and communication is the key task of a modern manager and leader in handling change. The said process is presented in a broader context in Figure 1.



While analyzing the presented diagram, it is easy to observe that corporate stability and success depend mainly on people. Concentration on human potential is fundamental for management by values. When it comes to a company's operation, management by values involves identification of goals concerning the operation of this organization based on key values determining the company's identity, regardless of changes in the market. While defining a given organization's value, it is advisable to discuss whether in 20, 30 or 40 years' time the value will be still

relevant and whether, if it is considered as profitable, it will still be the point of reference for our further actions. Acknowledgment of common values within an organization both by its managers and employees ensures that the actions resulting from given values are cohesive, mutually coordinated and predictable in the process of management, which establishes a certain harmony and social order among the members of the organization. The said process creates a positive corporate environment, favorable to creative, dynamic and optimistic attitudes, which affects the efficiency of undertaken actions [10].

### Characteristics of mining industry companies

It is a common belief that a company's efficiency is mainly the result of knowledge and information and not of material assets. Based on these values, a company becomes a specialist in the fields in which it has some unique competences, preferably worldwide. While building its competitive potential in order to meet the assumed goals, it not only uses its relations with other companies but it can also provide services for the benefit of other individuals. Key competences understood as a set of processes and skills enable access

to new markets and thus establishment of external and internal networks constituting the basis for added value creation [11]. Key competences are formed by resources, skills and profits perceived by customers (fig. 2). Mining industry definitely stands out among other branches. One of the main characteristics of a mining company is a big number of staff consisting of highly-qualified employees that have belonged for years to a professional group with specific traditions and values [7].

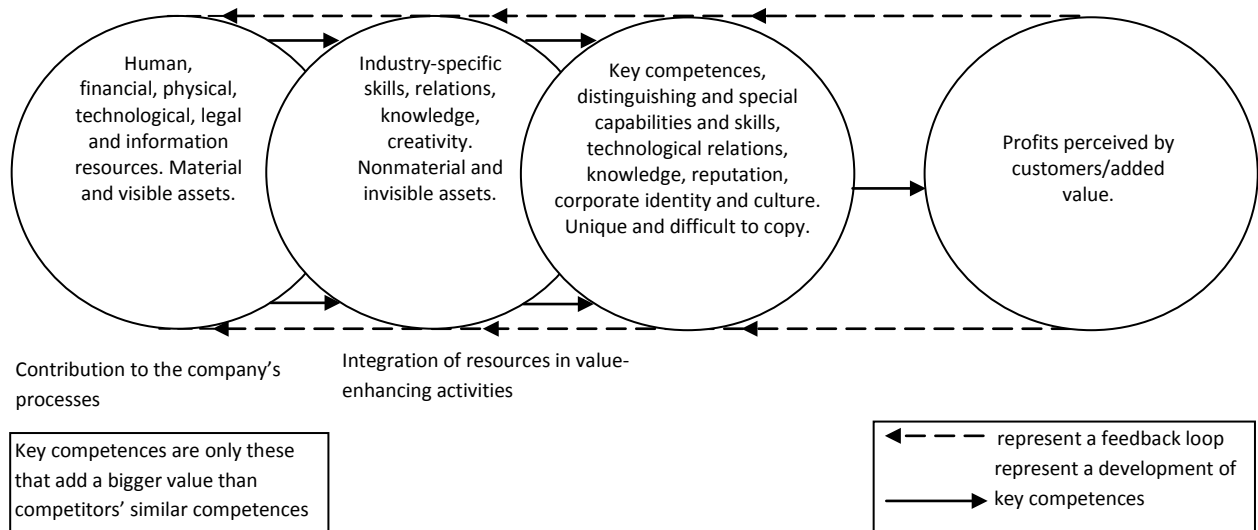


Fig. 2. Relations between resources, skills and key competences [11]

The operation (work organization) of mining industry enterprises is limited due to the fact that it is highly regulated by geological and mining as well as environmental protection laws, the main purpose of which is to ensure safety and security of employees. Such a strong impact of regulations often restricts freedom of choice of working methods and tools. Perhaps this is why a certain *conservatism consisting of cautious undertaking new initiatives and reluctance to seek changes* is characteristic of miners and mining industry due to the fact that the existing working system

ensures an appropriate level of security and new solutions may create risks.

It can also be observed that *the relationship between mining industry and R&D sector* has become stronger and stronger. The increasing difficulty of excavation conditions require highly advanced technologies and equipment without which it would be impossible to ensure a suitable level of efficiency. For years, Poland's mining industry has been a stimulant for technical, organization or process innovation whereas

many scientists from various research and scientific centers have been working for its purposes.

Among other distinguishing features of mining industry the following can be quoted:

- **complex but repetitive organizational structures** – most companies have the Management Board which controls the head office and mines (departments, in case of copper industry) which has their directors and sometimes other ancillary units. Directors, in turn, control mining and processing units which are characterized by *vertical functional structures and strong hierarchy*;

- **limited excavable raw material** – regardless of whether the excavation of hard coal, brown coal, copper or other minerals is in question, mining industry is characterized by its essential limitation, namely *the amount of excavable mineral*. It determines in some manner undertaken actions of planning and exploitation due to the willingness to achieve a maximum economic effect during long-term operation of a given Company. A specific value is expressed here by a motto “*We work for future generations*”, which involves above all

### Research on corporate culture

Research on corporate culture, whose integral part is values, can be a starting point for identification process of main values present in a given organization. It provides information on bases of corporate identity and allows us to determine how it should be developed.

Kim S. Cameron and Robert Quinn, who carried out research studies on characteristics of efficient organizations, demonstrated the impact of corporate culture on companies' efficiency, which was reflected in the Competitive Values Framework created by them. The said framework confronts basic values characteristic of different kinds of organizations. The emphasis on particular values vary in time, which brings about a change in a type of corporate culture” [1]. The framework has two main dimensions, which divide efficiency factors into four groups (see figure 3). The first dimension emphasizes flexibility, independence and dynamism at one end and stability, order and control at the other. It means that some organizations are considered efficient when they change and adapt (e.g. NIKE, which changes its product range very frequently), while others are seen as such when they are stable and predictable (e.g. universities, public institutions). The second dimension confronts efficiency criteria, which emphasize internal affairs, integration and unity at one end and criteria linked with one's position among others, differentiation and competition. Both of the described dimensions divide the sheet into four quarters, whereas each of them describes a separate set of factors of an organization's efficiency and thus they specify basic values used for the organization's assessment. These four basic values are opposed or competitive, therefore the framework was named the Competitive Values Framework Based on this, it is

sustainable exploitation, concern for natural environment and responsibility for the region's social development. Mining companies use them as mottos in their strategies;

- **strong link with the region and considerable impact on the development of its social capital, standard of living and prosperity of its residents** – the regions where mines are located are one of the richest. Working for one company is a family tradition, subsequent generations decide to take up work in a mine although they are aware how hard, demanding and dangerous it can be. Financial results of a company often determine the fate of all towns that become considerably impoverished in case a mining company is closed down;

- **frequent high corporate social responsibility**, reflected by involvement in the development of sports facilities and schools, activity of foundations, environmental protection, public health protection, development of culture and science in the region, etc.;

- **significant capital employment, from the very beginning of the operation.**

possible to present short profiles of corporate culture [1].

1. **Clan culture** – The atmosphere at workplace is very friendly and employees very cooperative. It resembles a big family in which bosses act as advisors, teachers or even parents. The organization stays afloat thanks to its employees' loyalty and traditionalism. It can be observed that the employees are highly involved. The organization strongly appreciates team work, participation and consensus;
2. **Adhocracy culture** - Dynamism, enterprising and creativity dominate in the organization. The people are not afraid of risk. Its leaders are regarded as innovators and visionaries. The organization puts a long-term emphasis on growth, taking up challenges and acquiring new resources.
3. **Hierarchy culture** - A highly formalized workplace with strict hierarchy and procedures in the first place. Its cohesiveness is ensured by laws and regulations. Its long-term perspective is stability, efficiency and undisturbed work. Delivery reliability, meeting deadlines and low costs are indicators of success.
4. **Market culture** - The organization appreciates most the results and cares mainly for the fulfillment of tasks, its employees are ambitious and goal-oriented. The leader is a supervisor aiming at competitiveness and production. Participation in the market and its penetration is the indicator of success. The management style promotes harsh competition.

Corporate culture of a company which consists of its behavior and artifacts is understood as a set of processes of transformation of its individual employees' values into a specific, characteristic of the whole company system of values and norms acknowledged in

it (named corporate values). What is important is that corporate culture is a process that can be consciously planned, controlled and developed, which constitutes an essential element of management by values.

### Results of research on corporate culture in a mining company

Based on the results of research carried out in one of mining companies (the authors' own research), it can be concluded that there is no dominant type of corporate culture. Two types of corporate culture had a similar percentage share, namely *market culture* (32%) and *hierarchy culture* (29.5%). It means that the organization needs stability and control while at the same it concentrates on its position in the market and internal affairs to a similar extent. However, it aims less at internal integration, flexibility and leeway. It is

reflected by clan culture (17.5%), characterized by concern for the customer and employees and flexibility as well as adhocracy culture (21%), in which the organization concentrates on its position in the market and at the same time it is highly flexible and individual. The aforementioned results have been illustrated on the corporate culture profile, presented in Figure 3.

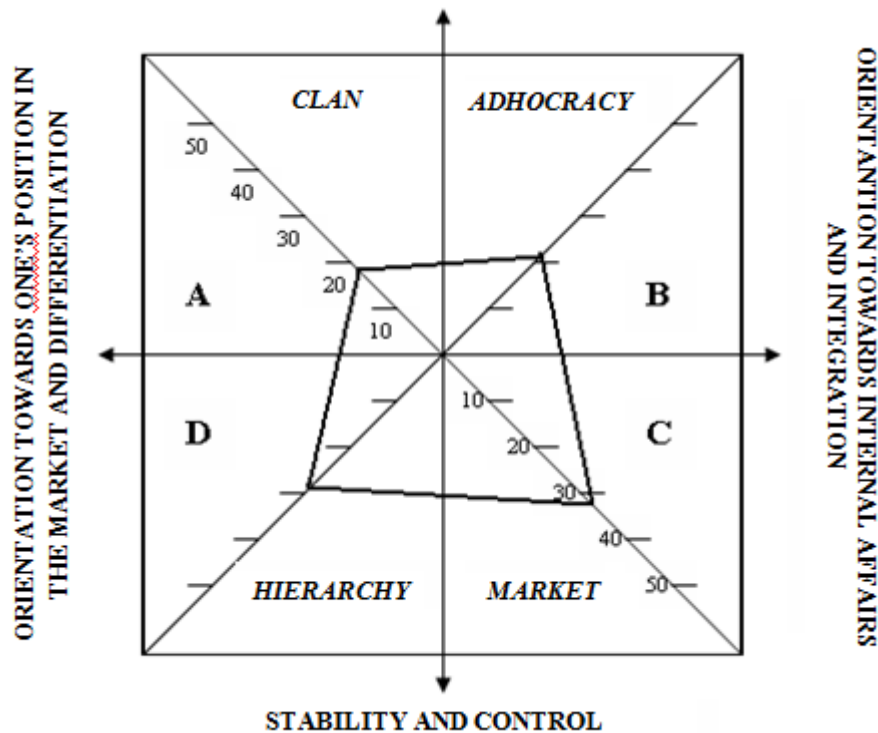


Fig. 3. Competing Values Framework in one of the interviewed companies

Representatives of management boards of mining companies often emphasize that humans are the highest value because the fate of their cooperators, the Company's efficiency and the destiny of future generations depend on their involvement, skills and decisions. The miner's profession is one of the oldest in the world, it is associated with strength, fortitude and persistence. Membership in the community of "ore miners" is a value in itself and it determines modus operandi at work and after work through honoring the tradition and participating in the development of future generations. Thanks to it, namely thanks to the existence of supreme values unchanging in time, which lay the

groundwork for corporate culture, mining understood as a kind of "art" has developed for years and has been able to last [5].

A kind of conservatism consisting of cautious taking up of new initiatives and reluctance to seek changes since "if it is okay, why to introduce any changes?" is characteristic of miners and mining industry.

The results of research on corporate culture in another mining company show the dominance of hierarchy culture, which is goal-oriented. It means that these companies emphasize procedures, multiple levels of corporate hierarchy and numerous proceeding rules.

It seems to result mainly from the characteristics of mining companies, including strong limitation of operation due to law regulations or acknowledged main values, e.g. security and a human being. The values characteristic of hierarchy culture are productivity, speed and undisturbed work while its long-term goals are durability, predictability and efficiency. In addition to hierarchy culture, it is possible to observe strong clannish nature of corporate culture as well as market culture that involves focusing on a given company's marketing goals, which is understandable in the light of transformations in the mining industry over the last 20 years. Such factors as profitability, position in the market or a base of regular customers are characteristic of market-oriented companies. Aiming at the best results is accompanied with a certain "family" atmosphere, resulting from common mining values and traditions. Our mine is our common good, it is our existence and our children's future – as miners seem to claim – that is why we need to support one another in pursuit of common goals. Sense of community, team work, enhancing employee involvement and a company's responsibility for its employees are characteristic of clan culture, which is clearly visible in mining industry.

While wondering whether Management by Values can be successfully implemented in mining companies, what should be discussed is the role of a leader (manager) who is supposed to carry out the process of implementation of new methods and to ensure that they be used at each level of the organization. What should the leader of a mining company be like?

In the case of the analyzed company, the most important kind of authority declared by those questioned was a highly charismatic technical authority. It is linked with

### Corporate culture vs. a company's efficiency

The prerequisite and condition for implementing new methods of management is the necessity to have positive impact on a company's efficiency. In order to answer the question on how the presence of given values resulting from research on corporate culture is related to work efficiency (in the case of the analyzed company, its extraction efficiency is in question), researchers carried out a study for which the following hypothesis was assumed [15]:

***In a mining company, the presence of work value is connected with the quality of its performance.***

Two mining units, namely Unit B and Unit Z, were selected to participate in the study. Groups of the interviewed employees were arranged so that both analyzed units had similar geological working conditions but also so that each of them differed considerably in terms of work efficiency. The selected groups of employees were provided with values of measures determining their work efficiency. In order to test disparities in efficiency factors between Unit B and Unit Z, the researchers adopted a statistical procedure of

the dominant, goal-oriented hierarchy culture and strong clannish nature of corporate culture. Taking this into account, the manager (leader) must know a given company's business field, its legal and technological conditions and enjoy a good reputation within its professional group. Moreover, his/her actions and implementation of the new management method must be supported with his/her charismatic personality. Since implementation of management by values and enhancement of involvement in it is not a single action and requires determination in the adopted approach, the implementation of the method should be envisaged for a sufficiently long period. While analyzing examples of different companies that declare to have implemented management by values, it should be emphasized that these companies have been managed for years by the same person. General Electric has had only eight directors over 100 years. In the case of Polish mining industry, directors of companies often do not have enough time to implement changes and then to reinforce them. Furthermore, such a situation hinders the cohesiveness of corporate culture and values acknowledged in the whole company, which is usually divided into different organization units. Each of these sub-units has its leader (e.g. the director of a mine) to whom the staff reports and each of the leaders has a different attitude to HR management and often incoherent system of values. The common feature that hinders implementation of uniform management models is the fact that these leaders hold their post for a period longer than the term of office of the Management Board, which makes their position particularly strong. It means that the feasibility of management by values in mining industry in Poland is seriously limited.

testing significance of disparities between average values which is based on the analysis of variance (average deviation of the results) within the tested groups and between groups – Analysis of Variance (ANOVA). The analysis confirmed the hypothesis on the existence of relationship between prevalence and intensity of work value acknowledged in both units and between their performance. Therefore, work value may determine its performance, i.e. efficiency of a given unit or operational group. Work values in the mining industry that reflect the dimensions of *the Competing Values Framework* are to different extent implemented by units with a different work efficiency [1].

**In the unit that achieved a higher level of efficiency, the declared level of cooperation, understood as interdependency of tasks, obligations and work results on other employees and on control, is also higher.** Moreover, employees of the unit with a higher operational efficiency mentioned a value of **undisturbed work** much more frequently than their colleagues (*My co-workers fulfill their tasks efficiently,*

they usually meet deadlines and their work is undisturbed). In both analyzed units, competition with other professional groups and result-orientation were at a similar level. In the unit whose work was more efficient, creativity is also higher, which is in turn connected with awareness of working in a modern company (*In my company, we use the latest global technologies in our field*).

What is interesting is that both analyzed units do not differ significantly when it comes to the level of prevalence of the values listed in the Competing Values

## CONCLUSIONS:

According to an undisputed authority on management, Michael E. Porter, the image of business has never been as bad as it is now. Company leaders who focus on short-term financial goals and ignore values decisive for long-term success of their organizations are to be blamed for it, in his opinion [8]. It is most frequently dependent on expectations of a company's owners and stockholders. One of the solutions to break the deadlock can be a proposed method of creating a common value, which goes far beyond the scope of corporate social responsibility,

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Framework understood classically, like it was in other organizations (cooperation, creativity, competition, control). It is only the value of classically understood **control** (with the main rule of doing things in a suitable manner) that was to different extent *desirable* to employees of both units. As one of few values, the level of desirable control is lower in the unit with better performance results. On the other hand, the level of control declared as actual is similar for both units. And so are classically understood cooperation, competition and creativity.

usually treated as a peripheral issue when it comes to corporate strategy. The said method assumes that a value created as a result of business activity is also significant for the society. Implementation of the management by values model at the institutional level and its durable incorporation into the elite group of building companies can be a starting point for the transformation of the contemporary economy, including mining industry.

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