Value Added for Stakeholders in Mining Operations Based on Cash Flow

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Abstract

The purpose of this article is to present certain trends in the distribution of value created by businesses for groups of stakeholders as part of a conception of sustainable growth. The articles defines value, who this value should benefit, and in what way it should be distributed. A method for measuring distributed value based on cash flow is demonstrated. The current value of this cash flow within a definite timeframe may serve as a potential indicator for the continuation or liquidation of operations in terms of the maintenance or loss of benefit for stakeholders.

Keywords: value of mining companies, stakeholders, distribution of value added

Preface

The dynamically changing environment in the industry requires the development of innovative management techniques. Businesses more and more often recognise the need to create value based on respect for "healthy" business principles. Sustainable growth, corporate social responsibility, and the idea of the stakeholder are only a few of the concepts which, when applied at appropriate levels of the management hierarchy and properly developed and monitored, can lead to the growth of value in the business. The concept of maximisation of profits, which was most often identified with the achievement of above-average rates of return on invested capital for shareholders, has in recent years been redefined. The requirements of the modern world on businesses have undergone a certain reorientation. A strong focus on the growth of share prices of the company and its ability to create market value have become indicators of the success of the strategy adopted by the company's management. On the other hand, however, there is an increasing focus on the realisation of social and environmental goals. Faced with the difficulty of reconciling theses somewhat contradictory needs, companies are beginning to search for solutions which take into account the interests of different groups. The concept of corporate social responsibility (CSR) is an attempt to reconcile the shareholder, whose aim is to maximise the return on invested capital, with the interests of remaining parties, whose interests quite often differ significantly from classical financial benefits. The search for an acceptable compromise is exceptionally difficult, but not impossible.

This article presents methods of identifying value added while simultaneously implementing principles of sustainable growth and equitable division of benefits among the main interested parties. In order to illustrate practical problems, an attempt is made to identify the benefits derived by the stakeholders of mining companies from their operations, and a set of tools is presented for measuring the effects which may be achieved if the company is managed in a socially responsible fashion.

Sustainable Development and Company Value

In the face of continuous changes taking place in the market and changing priorities in the setting of management strategies, one issue seems to remain unchanged. The central purpose of every company is still create value and economic potential. In general terms, the value of a company can be understood as the set of characteristics of a given company which determine its ability to increase the capital invested in it, which leads to the satisfaction of the needs of entities which are directly or indirectly related to the company (Masztalerz, 2014). The difficulties which arise in defining value and its objective assessment mean that the value of the company should be analysed in terms of various categories, such as equity, market, or economic. The topic of this article is an analysis of the value which is added for the benefit of the company's stakeholders.

The creation of value in the company is possible thanks to appropriate decisions, both short-term operational and long-term strategic ones. An analysis of the value of the company in these categories reveals that this value is usually assessed in terms of the economic results achieved, financial benefits, and the equity held. The material factors of value generation are unquestionably essential, but they are not the only factors. The drive of the company to achieve a permanent, competitive advantage has led to the development of a worldview in which not only material factors, expressed in readily measured financial results, are influential in creating value for the company, but also, or even primarily, intangible factors have influence. These latter factors, whose role has until now been underestimated, which are intrinsic to the name and image of the company, such as stakeholder relations, the market position and reputation of the company, its culture of innovation and other factors, have an ability to create value equal to traditional generators of value on the balance sheet. Since the creation of the value of the company is a complex process, a result of many interrelated factors, relations and interactions, businesses currently focus on the creation of value based on a combination of tangible and intangible factors, thus creating a sustainable business. The fundamental basis for creating value in these categories is the effective use and management of financial capital integrated with the drive towards the dynamic growth of intangible capital. The significance of this capital, also known as intellectual capital, is becoming greater and greater. According to numerous theories, it is this wealth of knowledge of employees, suppliers, and clients that determines the increase in the value of the company. Thus, we can observe situations in which managers strive to make all processes within the business promote the synergistic and parallel development of both material and non-material assets of the company. The effective coordination of these processes requires first of all that management identify the sources of value generation for individual stakeholders, taking into account their expectations and needs.

Creating Value in the Company for Stakeholders

The primary aim of every business must be the creation of value for its shareholders. As the stakeholders which are most strongly associated with the company, they have the greatest motivation for the company to be managed in such a way as to generate profits now and in the future (Chrzanowski & Głażewska, 2010). Shareholders aim to guarantee the highest rates of return on the capital they have invested, and so they are motivated to implement company strategies in such a way as to continuously increase revenues. However, when considering the issue of value in terms of a sustainable business, it must be noted that every business is also assessed from the point of view of other stakeholders, that is, employees, clients, the market environment, providers of capital, society at large, and others. Each of these groups has its own defined requirements vis-a-vis the business. The owners expect a high rate of return on invested capital, employees and management strive foremost to ensure remuneration for themselves, as well as a space for the prospects of career development and the realisation of their own aspirations. Institutions which finance the business operations are interested in the timely fulfilment of financial obligations by the company, as well as in generating interest from the investment which compensates for the risk taken. Suppliers and strategic business partners concentrate on the building of stable, long-term commercial contracts which will ensure their financial security. The expectations of the clients oscillate between a high quality product, a wide range of products, and low prices. The significance of the company for the economy and for state interests is also crucial. State institutions, both at the local and central level, count on high revenues from taxes paid, and on regional development due to increases in employment (Masztalerz, 2014). This is also vital for local communities which, when they have guaranteed workplaces, can also use social services, and have access to healthcare, education, and culture. The expectations of individual stakeholders of the company are not limited solely to financial categories. More and more often, the need to guarantee intangible benefits is highlighted, expressed in the concept of the triple bottom line which determines the satisfaction of economic, social, and environmental needs, including: satisfaction (with employment, the product, services, business relations), positive perception (of job prospects, economic development), quality (of goods, working conditions, social life), and security (of life, employment, the region). A detailed analysis of the stakeholders and their expectations is presented in Table 1.

It can be seen that the value of the company in market, economic, and equity terms, is a derivative of the value created by the company for the individual groups of stakeholders. In the final analysis, it is the value added for stakeholders that influences the market, economic, and equity value of the company. Balancing the needs of all these groups for the common good is crucial. It appears that the discovery of a „golden mean" in this respect can enable the stable development of the company and the creation of value in the long term.

Sustainable business and the concept of the creation of value require the appropriate reporting and presentation of data for public verification in the form of integrated reports which combine aspects of financial reports (tangible factors) and sustainable development reports which cover intangible factors. According to Freeman, effective management should be based on constant communication with stakeholders, which can lead to the success or failure of the business (Freeman, 2010). Public accounting for the

Tab. 1. Aims and expectations of company stakeholders

Tab. 1. Cele i oczekiwania interesariuszy

Stakeholders	Expectations of the interest groups
Owners	high dividends, growth of share prices, competitiveness and continuity of business
Employees	high salaries, job security, career prospects, job satisfaction, personal and professional development
Creditors	timely payment of debts, interest, minimisation of risk, the strong market position of the company, balanced investment portfolio
Suppliers	stable commercial relationships, timely payment for products and services, increase in sales
Clients	exceptional quality, low prices, rebates and discounts, wide selection
Public authorities	tax revenues, economic growth, regional development, innovation, environmental protection
Natural environment	minimisation of negative influence on the environment, development of renewable energy sources, pro-ecological investment
Society	increase in employment rates, development of culture, education, healthcare, infrastructure, and impact on social life

Source: Own materials based on: (Masztalerz, 2010 & Chrzanowski, Głażewska, 2010)

activities of the company may enable gaps in value to be closed, gaps which arise from the absence of reliable, unambiguous information for stakeholders, and from the discrepancies in the assessment of the value of the company between different groups of stakeholders. Coherent, integrated reporting seems to be the cure for the problem of discrepancies in assessment of the company, and for a single, unified view of the value of the company from the perspectives of different interest groups.

Distribution of Added Value Based on the Example of a Mining Operation

The management of a mining operation aimed at the sustainable growth of value, taking into account the strict relations with stakeholders, requires the use of appropriate methods of measurement. For the purposes of this article, an analysis of a value added statement has been assumed as a measure of the effectiveness of operations in the satisfaction of the financial needs of its stakeholders.

Value added statements (VAS) are becoming increasingly important nowadays. In spite of the fact that they are not a compulsory form of accounting, many businesses are deciding to include them in their annual reports. The reason for this growing interest in the topic may be the fact that businesses are beginning to recognise imperfections in the reports used up until now. The classical financial information contained in such reports, especially for parties interested in and participating in the success of the company, oftentimes turn out to be inadequate. These days, stakeholders expect, and even demand, detailed and reliable information on progress in implementation of strategic goals in the economic, social, and environmental spheres (Kijewska & Bluszcz & Sojda, 2015). A value added statement accents the essential nature of mutual cooperation and integrated efforts of the various stakeholders in the process of creating value in the company. This, it defines who takes part in the generation of results and for whom they are to be measured.

Value added is defined in the literature as the difference between the real effects of business operations of a company, defined as revenues from sales, and the outlays incurred in order to achieve these effects. These outlays include first of all costs of materials, external services, and human and financial capital (Marcinkowska, 2012). Intellectual capital is undoubtedly a significant element in the process of the creation of value. In many companies' practices, there is a noticeable focus on employees, who, as experience shows, are the main beneficiaries of generated surpluses (Sierpińska & Rzeszowski, 2012).

The value added which is created in a company should be reflected in the way it is distributed among its beneficiaries. All stakeholders of the company have a vested interest in the creation of value in the company, as they participate not only in the creation, but also in the consumption of this value. Since the financial benefits of the company are an effect of the mutual cooperation of interest groups, it seems obvious that these groups should participate in the distribution of these profits. No stakeholder will build a long-term relationship with a business if this relationship does not maximise his or her benefits, chiefly financial ones (Masztalerz, 2014).

The distribution of added value in a mining operation has its roots in the aim to meet the needs of all groups of agents in the scenario. The specific character of the industry makes it necessary to make socially responsible decisions, ones which will satisfy the financial needs of the business and will enrich society. Incontrovertibly, one source of satisfaction of the needs of all stakeholders in the company is the economic benefits generated in the company. These benefits constitute the value created for the interest groups. They dictate the payment of dividends to shareholders, the timely payment of financial obligations to investors, the payment of obligatory taxes for the benefit of the state, the regular payment of employees' salaries, the timely payment of obligations towards strategic partners, and the maintenance of extraction of materials at a high level, as well as conditioning charity activities such as environmental and social welfare campaigns. Thus, this economic aspect should be treated as a crucial element of sustainable development, one which is the basis for the implementation of proper environmental and social policies. The long-term creation of value in a mining operation thanks to the generation of financial surpluses will certainly lead to financial benefits which can support the remaining areas of sustainable development. As is well known, without „real" financial means, no effective action is possible in the other areas of sustainable development.

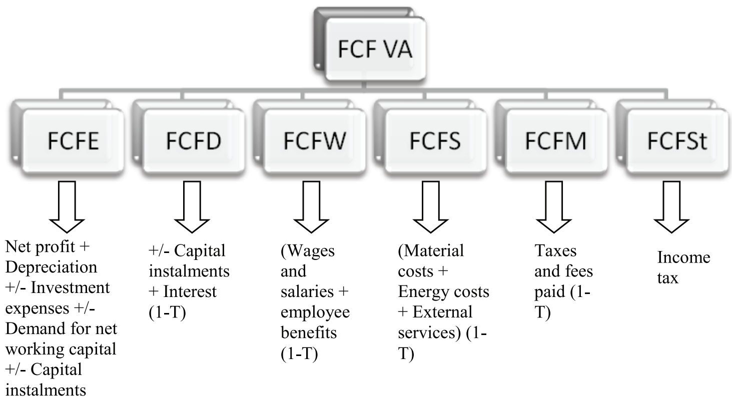
Policies for the distribution of the created value added require the definition of the structure for its distribution. This structure reflects the proportions of distribution of value among the individual groups of beneficiaries. In order to define the distribution of added value, it is necessary to understand the character of the relationships under analysis. The mining industry is a specific example which allows us to examine the process of distribution. The broad group of stakeholders makes it necessary to answer the question, "Who suffers if the mining sector is eliminated?" Methods of assessment of value added well-known in business and the literature make use of outdated conceptions based strictly on net profit which provide insufficient information (Morley, 1979), (ISAGEN S.A.E.S.P, Management Report 2011). For this reason, the authors of this paper have decided to use a dynamic method of assessing sustainable value in mining operations. These dynamic methods, based on discounted cash flow (DCF), appear to be a more reliable tool for measurement which allows the distribution structure of added value to be defined and the financial benefits received by individual groups of beneficiaries to be realistically reflected. These benefits can most often be expressed in financial categories defined by cash flow and incorporating operational and financial costs is presented in Figure 1.

The proposal to make use of cash flow makes it necessary to introduce the concept of free cash flow from value added (FCF VA). This is the sum of cash flow to various groups of beneficiaries, including owners FCFE (free cash flow to equity), employees FCFW (free cash flow to workers), providers of capital FCFD (free cash flow to debts), suppliers FCFS (free cash flow to suppliers), municipal administration FCFM (free cash flow to municipal administration) and the state FCFSt (free cash flow to state).

For the groups presented, the value distributed throughout the business takes the form of benefits from cash inflows, which for the company become an expense related to costs. For this reason, free cash flow for owners has been estimated as a derivative of profit, depreciation, investment expenses, demand for net working capital, and capital instalments. Cash flow for banks are the result of pay interest and capital instalments. Cash flow for employees are a consequence of salaries, wages, and other forms of remuneration paid. Free cash flow for suppliers is the result of costs borne for materials, energy, and external services contracted for the benefit of the company. Cash flow for municipal administration and the state are a derivative of taxes and fees paid, as well as of income tax. The methodology accepted in this paper based on records of costs categorised by type in the operations sector is justified in the case of assessment of value added for all stakeholders by the need for a wider view on the aggregate costs of the operation of economic entities. It would seem to be crucial to take this wide view on business activities and to take into account all the costs of the operation of the company, and thus create an appropriately detailed map of stakeholders. Excessively generalised treatment of costs in this respect may result in incomplete information regarding the creation of real value for the interest groups.

The methodology of assessing sustainable value involves the definition of FCF VA for particular interest groups of the company for each forecast year. By using appropriately estimated weighted average cost of capital (WACC), it is possible to calculate free cash flow from value added (FCF VA) and to define the current value of future revenues. The final effect is that it will be possible to define the current value of the company for all interest groups. The methodology used to assess sustainable value is presented in Fig. 2.

In order to ensure the mining operation long-term growth and development, it appears to be necessary to evaluate individual relations and indicate the entities which are most strongly associated with the company



where:
FCF VA- Free cash flow from value added
FCFE- Free cash flow to equity
FCFD- Free cash flow to debts
FCFW- Free cash flow to workers
FCFS- Free cash flow to suppliers
FCFM- Free cash flow to municipal administration
FCFSt- Free cash flow to state

Fig.1. Free cash flow from value added for stakeholders [source: own materials]

Fig.1. Wolne przepływy gotówkowe z wartością dodaną dla interesariuszy

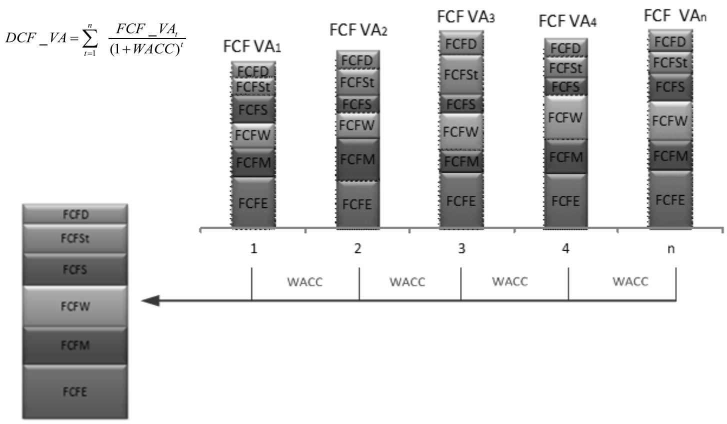


Fig. 2. The enterprise value for stakeholders DCF VA [source: own materials]

Fig. 2. Wartość przedsiębiorstwa dla interesariuszy DCF VA

and whose needs should be taken into particular account. Evaluation and comparison of benefits which are obtained by individual value recipients enables us to observe dependencies and interacting forces within the company-stakeholder structure. A „map" of stakeholders so constructed will indicate who is the main beneficiary of the created value, and simultaneously who will suffer the most if the company fails. It is vital therefore to maintain stable relations with the stakeholders, to report the activities of the mining operation to all groups of stakeholders, and to maintain the positive public image of the industry. Taking into consideration the fact that mining companies have such an extremely strong impact on their surroundings, the equalisation and optimisation of the aims of all beneficiaries would appear to be essential.

Summary

Currently, at a time when the further development of coal mining companies is under serious question, it would appear to be crucial to identify the individual beneficiaries of value added, and to maintain strategic relations with these groups, for mutual benefit. The creation of value in mining companies according to the triple bottom line concept may offer a recipe for competitive advantage. In our times, this advantage is absolutely essential, explaining the drive of many mining companies towards innovative solutions which will allow them to reach their objectives. An innovative approach to the management of mining companies based on sustainable development appears to be well-justified.

Strategic management of the value of the company requires the definition of key areas including the generation of tangible and intangible value, and the definition of measures for the growth of these values. Management based on value management assumes that the main aim of every company is foremost the creation of value for shareholders. As the concept of sustainable growth has developed, the creation of the value of the company has expanded to include the satisfaction of all stakeholders' needs. One of the best methods of measuring the wealth of the company seems to be an analysis of value added. The generation of value added is conditioned by the ability of the company to generate revenues from sales. The process of the creation of value therefore begins with the client, and it would thus seem crucial to meet the client's needs at the highest level, by offering the highest quality products.

The mining industry is a specific branch which confirms the necessity of carrying out policies of sustainable growth. An important feature of this type of policy is the measurement of distributed values to the different stakeholders of such companies. Among the different methods of distributing value, the proposal to assess value based on free cash flow deserves special attention. The formation of a value distribution policy in the case of a mining company may have strategic significance. Appropriate decisions at the management level are decisive in what portion of the resources of the company are dedicated to further development and what to immediate consumption.

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Wartość dodana dla interesariuszy przedsiębiorstw górniczych oparta na przepływach pieniężnych

Celem artykułu jest przedstawienie aktualnych trendów w koncepcji dystrybuowania wartości dla interesariuszy jako obszaru zarządzania opartego na zrównoważonym rozwoju. Artykuł definiuje wartość jako korzyść i sposoby jej pomiaru. Jednocześnie zaprezentowano pomiar dystrybuowanej wartości dla interesariuszy na podstawie dynamicznego podejścia opartego na przepływach pieniężnych. Wartość dodana oparta na przepływach pieniężnych dla interesariuszy może stanowić potencjalny miernik do podejmowania decyzji dotyczących kontynuacji lub likwidacji działalności.

Słowa kluczowe: wartość spółek górniczych, interesariuszy, podział wartości dodanej