Decomposition of the problem of ensuring balanced development of a modern enterprise in the stakeholder theory context

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ABSTRACT

The paper deals with urgent problems of enterprise’s sustainable development in terms of finding balance between social responsibility, ecological sustainability and economic viability. A modern organization operates in a complicated environment, being characterized with higher degree of social accountability and strict ecological limits. According to this, complexity and multitasking of ensuring balanced development of an enterprise are stressed in the article. A hidden connection between sustainable development and interests balance of company’s stakeholders is highlighted. Based on the advantages of T. Saaty’s AHP approach for solving complicated problems, a five-level hierarchy is formed. The presented decomposition gives the hierarchic understanding, concept and structure of process of ensuring balanced development of an enterprise. A mathematical and graphic description of the impact of each of the separated levels of the problem focus is made.

Keywords: corporate social responsibility, stakeholders’ balance of interests, sustainability, balanced development, hierarchy, decomposition of complexity.

1. Introduction

Modern enterprise constitutes socio-economic, reproductive, sectoral, territorial, infrastructural integrity, which is characterized with complexity of connections, specified structure and main proportions. Nowadays, it is forced to act as an open system which accounts for its own activities and for achieving a justified balance of its stakeholders. According to this, the living space of society is considered as a direct bridgehead for the functioning and development of a contemporary enterprise, a substantial horizon of questions connected with balanced model-building of business and social relationships.

2. State of research

It took about 70 years for Bowen’s innovative ideas about necessity of ethical carriage of affairs by businessmen who submitted their own policy, decision-making methods and behavior line to society’s expectations and values (Bowen, 1953, p. 6) evolved to an entire conception of business’ social responsibility for providing sustainable development and prosperity of future generations. Forming a modern social responsible organization concept occurred under the conditions of interactions and competitions of Friedman’s (Friedman, 1971) and Levitt’s (Levitt, 1973) ‘corporate egoism’; Bowie’s (Bowie, 1988) and Donaldson’s (Donaldson, 1982) ‘smart egoism’; Baumol’s (Baumol, 1970) ‘corporate altruism’; De Freeman’s (Freeman, 1984) ‘stakeholders’ theory’; Carroll’s ‘pyramid of corporate social responsibility’ with its four accountability levels: economic, legal, ethical, philanthropic (Carroll, 1991); of last thirty years concepts, such as ‘corporate social receptivity’, ‘corporate social activity’, ‘corporate citizenship’.

Such transformation of the corporate’s social function, from Friedman’s thesis that ‘profit is all that matters’ (Crowther and Aras, 2008, p. 12) to understanding that benefit has compa-
rative and momentary character, considerably heightened the degree of social responsibility and liabilities of business toward society. Now, the triune formula of economic efficiency, ecologic security and social equity, fixed by the international community in well-known management standards, such as ISO 14000 'Ecologic management', ISO 9000 'Quality management systems', ISO 45001 'Occupational health and safety management systems', ISO 26000 'Social Responsibility', gradually comes into the organization's usual performance: from huge multinational corporations to small ventures, and transforms into an essential part of their high business image, routines and base for strategic initiatives. Cooperation between business, society and environment transforms into the crucial factor of its ability to keep functioning efficiently (Amosh et al., 2016; De Gooyert et al., 2017; Kharazishvili et al., 2016; Lakhno et al., 2018; Sarman et al., 2015; Theodoulidis et al., 2017; Tullberg, 2013). Today it is common to speak about integrated sustainable environmental, social and economic development (ISO 26000).

Therefore, a modern organization during its own activity is exposed to huge pressure of a wide circle of stakeholders, whose interests have as a rule a multidirectional character, sometimes strange to direct economic profit. In these conditions, the necessity of ensuring balanced development in sociopolitical, economic, scientific, technical and ecological perspectives becomes one of the powerful instruments for resistance to threats of external environment (Kwilinski, 2017, 2018a, 2018b). The achievement of the above-noted three constituents as special conditions for balanced development, when social responsibility does not become a great pressure, but transforms into complementary competitive advantage of an enterprise, is considered to be a current and perspective question of theoretical and practical importance.

The aim of this work is to create an effective basis and prerequisites for solving the problems of ensuring balanced development of the enterprise through their profound specification without loss of holistic representations and focus, through the formal assessment and further regulation of their complexity. The following tasks are conductive to attain the above-formulated aim:

- forming the notion of balanced development of a socially accountable enterprise,
- defining the degree of the impact of multidirectional interests of stakeholders on balanced development,
- making a hierarchic presentation of the problem of ensuring balanced development of an enterprise through its decomposition with separation of the problem's focus, forces which have an effect on the general purpose, actors or stakeholders with their own interests and expectations, scenarios which define the probability of achieving the set goal.

According to the high level of complexity and multifactor character of solving the matter, special methods and procedures have to be used. The decomposition of the problem into compound parts, defining their interconnections, calculating the degree of their impact on the problem's focus through priority vector and its presentation in the form of detailed levels' ordering by means of hierarchy analysis are supposed to be the most relevant.

3. Methodological research

3.1. Balanced development of an enterprise as the answer to social expectations

Deepening the working hypothesis that balanced development is a special form of realizing the enterprise's internal and external processes, which, primarily, complies with social expectations, allows to accomplish the decomposition of the analyzed question and to discover hidden connections between mutual satisfaction with the results of realizing by the enterprise its own social responsibility and ensuring its balanced development.

The unexpected crisis, which encompassed the world economy in 2008-2009, became another indicator of the actuality and acuteness of the problems of economic growth. These circumstances made it obvious that 'the pursuit of growth' had been the single most important policy goal across the world (Jackson, 2009, p. 5). Growth that was only based on constant acceleration of the consumption speed became the imperative, being formed by the specific architecture of the economy. According to Booth, 'society is hooked on growth' (D. Booth, 2004, p. 153). In addition, a belief in economic growth as a function of prosperity transformed into a myth despite the impending statistics. A fivefold increase of the economy (1950-2000) was accompanied by the estimated sixty-percent degradation of the world’s ecosystem, with near two billion people living below the poverty line (Pajak et al., 2016, pp. 204-217), and global carbon emissions rising by 40% since 1990; the Kyoto Protocol 'base year' (T. Jackson, 2009, pp. 5-6). Main cautions, reported in
the known ‘Limits to growth’ by Meadows (Meadows, 1972), who already in 1970s began to raise the question of the price paid by society for such growth, were realized then.

During the unfolding of the next world’s crisis, Tim Jackson – Economics Commissioner on the Sustainable Development Commission, underlined in his report of March 2009 that the ‘myth of economic growth has failed, spectacularly, in its own terms, to provide economic stability and secure people’s livelihoods’ (Jackson, 2009, p. 7). Based on the depletion of ecology and sustainable social injustice, prosperity for several is not a foundation for the development of a civilized modern society.

Cooperating with other international and regional organizations, corporate business UN continued functioning actively in the context of ensuring balanced development, involving all levels of potential impact during the last decade. Popularization of the formulated Seventy aims of Sustainable Development, the Paris Agreement on climate change, adopted in December 2015, giving reasons for corporations to use special estimated indexes such as the Dow Jones Sustainability Index, stimulating social responsible investing are extremely noted. Owing to that, great efforts, directed to involve one of the crucial and influential players in the sphere of ensuring balanced development and maintaining business, meet in the vector of corporate social responsibility, the implementation of which becomes a key characteristic of any modern organization, irrespective of its pattern of ownership, sphere of value added and scale of functioning.

Things change as economies grow (Jackson, 2009, p.76). That is why the principles of egoistic behavior, i.e.: “there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud” (Friedman 1970), stop operating efficiently and giving profit to business in the long-term perspective. Today, corporate social responsibility as a sustainable management system, based on constant dialogue with society, becomes the key business ideology.

At the same time, compliance of the principles of accountability, transparency, ethical behavior, respect for stakeholders’ interests, respect for the rule of law, respect for international norms of behavior, respect for human rights, fixed by international standards SA 8000 and ISO 26000 (Henriques, 2012, p.12), means not only automatically getting profits from open connections and understanding social needs, as well as from controlling the environmental impact. Usually, it demands from business big efforts, special internal organization and additional resources: human, temporal and financial; relevant decisions and policies, which not all the time bring by themselves a direct profit or income.

Furthermore, it should be noted that ‘the aim of sustainable development consists in achieving sustainability of the society as a whole and a planet. It does not refer to the sustainability or continuation of a life-cycle of a given company. Sustainability of one organization both is or is not able to correlate to the sustainability of the society which is provided with solving economic, ecological and social problems in terms of integrated approach.’ (ISO 26000: 2010, p.11).

The need to harmonically work in such a complicated context of socio-oriented existence leaves the modern enterprise alone with differences in direction, intensity of influence, time efficiency processes, and requires from it looking for certain equilibrium in a combination of social, economic and ecological components in balanced development. Balance serves as a united, qualitative and fundamental characteristic, which provides for the homeostasis (functional reproduction) of any system, including the socioeconomic one. Balance becomes the base and source of such characteristics important for the development of the system as sustainability, harmony, proportionality and others, as shown in fig. 1. Just an enterprise with a balanced internal environment has an opportunity to meet social expectations and act effectively within the ecological constrains.

Balanced development describes qualitative and proportional changes which ensure the system’s stability and viability through the creation of required grouping and proportions both between the system and the external environment and within the system itself. Balanced development of an enterprise as an open complicated adaptive system can be depicted with the existence of two multidirectional vectors: the actions of the external environment and counteracting the internal environment. Thus, equilibrium development is a compound synergetic process of qualitative and proportional transformation of its vital functional systems, being directed at achieving sustainable socio-economic efficiency through the long-term perspective (internal forces). Along with this, providing balanced development as the key goal of the existence of an enterprise meets with the multidirectional aims of stockholders,
CEOs and top-management, staff, government, social organizations, which are both directly or indirectly interested and act with some impact on the realization of the main purpose (external forces).

Thus, in short, supplying the high-performance social accountable function and development requires finding balance in achieving its own interests, interests of society and natural environment needs by an enterprise.

3.2 Multiplicity of interests under ensuring balanced development

The above-defined key connection between social responsible behavior of an organization, in other words – performance of the 'social contract', and the importance of ensuring its balanced development highlights the existence of a wide field of stakeholders, being able to influence the solution to this problem. Establishing and interacting with stakeholders are the fundamental practices of implementing social responsibility of a modern organization (ISO 26000:2010, p. 16). These processes are most exactly pictured by the scholar H. Jonson: “A socially responsible firm is one whose managerial staff balances a multiplicity of interests. Instead of striving only for larger profits for its stockholders, a responsible enterprise also takes into account employees, suppliers, dealers, local communities, and the nation” (Jonson, 1971, p. 50). There he implicitly gives a definition of a social responsible organization through the stakeholders’ concept and highlights the necessity of balancing their multidirectional interests. As a rule, different stakeholders have different, very often competitive interests which are considered to be general source of complexity of ensuring balanced development (ISO 26000: 2010, p. 20). Therefore, as noted above, it confirms the necessity of further decomposition.

According to ISO 26000, any organization at the present stage of development, functioning and realizing its own potential, enters or feels three fundamental interrelations which exist regardless of the organization’s awareness of them, as shown in figure 2.

Just these interrelations influence the ability to exist and be efficient of a contemporary company. It is obvious that identification and subsequent specification of such components as ‘stakeholders’, ‘society’ and ‘natural environment’ will exponentially extend the quantity and qualitatively differentiate interests and expectations presented to a company for fulfilling and taking into account during its life-time. A balance of interests provides for the above-highlighted requirements to harmonize with such a target-setting of a company.

Since the mid-1980s, many different methods of defining and accounting for the stakeholders’ effect on a company have been created, such as Mitchel’s model of ‘Power-Legacy-Urgency’, Savage’s identification of significance by the parameters of ‘Threats-Interconnection’, OMG’s method of defining the rate of stakeholders’ involvement, and others. Thus, taking
into account the character of the problem of ensuring balanced development and accumulated experience within social responsibility acceptation gives an opportunity to make the decomposition of the above-defined problem by creating its hierarchic presentation and observing the balance of interests of all stakeholders (Saaty 1980).

3.3 Using the Analytic Hierarchy Process for the disintegration of the problem of ensuring balanced development of a modern enterprise

It is evident that the investigated economic reality has complicated, multifactorial and systematic character and contributes relevantly to analyzing methods and approaches. Using the elements of Saaty’s Analytic Hierarchy Process (AHP), presented by him in the 1980s, is considered to be effective for detection and structuration of complicated and unclearly formulated problems characterized with complexity and huge amount of interconnections.

AHP is a systemic procedure of a hierarchic presentation of elements, defining the essence of the problem. It establishes powers and intensity of their impact to achieving the main goal (solving the general problem) – the peak of hierarchy. AHP consists of procedures of synthesis of different assessments, getting criteria priority and finding alternative decisions (Saaty 1993, 2001). Advanced problem detailing, establishing a hierarchy of its components, stakeholders and their rate-impact to its solving are regarded to be the main advantages of this approach.

The applied character of AHP (Perez and others 2017) makes it useful for the decomposition of the problem of ensuring balanced development of an enterprise. Following the logic of this approach gives a hierarchic presentation of the analyzed problem. Its decomposition gives an opportunity to answer the question of which components of balanced development of an enterprise (manufacturing, financial, marketing, social, ecological) is most influenced at the moment (which of them requires developing first). For achieving the general goal including the influence of external and internal forces (social, economic, ecologic), actors influencing these forces (investors, top-management, personnel, society, government), and the actor’s aims (paying ability, taxes, dividends, saving work places) determining the directions and methods of achieving the general goal, as shown in fig. 3.

The decomposition presented in figure 3 gives the hierarchic understanding, concept and structure of the process of ensuring balanced development of an enterprise. The problem under analysis consists of five correlated levels, each of which is hierarchically interconnected. Thus, the peak of the formed hierarchy means the focus of the problem under analysis, namely: ensuring balanced development. At the second level, forces are defined, providing the achievement of the general goal, with a different degree of pressure. Thus, balance of the enterprise’s development attains in terms of ensuring financial sustainability, ecologic safety, growth of prosperity, lasting technological renovations and increase of market value. The third hierarchic stage is presented by actors – participants of internal and external surroundings, who have a direct (personnel, management, partners) or implicit (state institutes, society organizations, investors) influence on the solution to the general problem. Each of the defined actors has some interest and degree of impact on attaining the established goal and acts through the realization of its own purposes, which are presented at fourth level of the hierarchy.
The fifth level is formed with relative components (manufacturing, financial, investment and innovation, marketing, social, ecological) which ensure balanced development of a company and which are aimed with actors' activities in this hierarchy. The last level of this hierarchy is the scenarios of establishing the constituents of balanced development.

Focusing on the advantages of AHP for solving the above-noted problem, the five-level hierarchy may be simplified to a three-level one, as shown in figure 4.

Accordingly, the created hierarchy shows that ensuring balanced development of an enterprise depends on achieving a balance between economic viability, social responsibility and environmental sustainability. Realizing this condition, in turn, requires a certain priority of the specified manufacturing or investment-innovation components of balanced development, as it shown in fig. 4.
In terms of Saaty’s statistical scale of assessments, pairwise comparisons of specified hierarchic levels are made in tables 1-2. The importance rate of each force for achieving the general goal is defined in table 1. Mark ‘1’ is given when the objects compared have an equal impact on the attainment of the main aim; mark ‘3’ means that object 1 is slightly more important than object 2; mark ‘5’ is given in a situation when object 1 is significantly more important than object 2; mark ‘7’ means that object 1 is obviously more important than object 2; mark ‘9’ is assigned when object 1 is absolutely the most important object. Marks ‘2, 4, 6, 8’ serve as a compromise of the above-analyzed assessments.

It is important to note that in this case marks are assigned based on the fact that the enterprise works on the principles of sustainable development and relies upon its socio-ecological component.

Table 1: Pairwise assessments of the second hierarchy level

<table>
<thead>
<tr>
<th>Ensuring balanced development</th>
<th>Economic viability</th>
<th>Social responsibility</th>
<th>Environmental sustainability</th>
<th>Normalized priority vector, ( NV )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic viability</td>
<td>1</td>
<td>1/5</td>
<td>4</td>
<td>0.28</td>
</tr>
<tr>
<td>Social responsibility</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>0.64</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>1/4</td>
<td>1/6</td>
<td>1</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Source: authors’ development.

<table>
<thead>
<tr>
<th>Ensuring balanced development</th>
<th>Manufacturing component</th>
<th>Investment and innovation component</th>
<th>NV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic viability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing component</td>
<td>1</td>
<td>3</td>
<td>0.75</td>
</tr>
<tr>
<td>Investment and innovation component</td>
<td>1/3</td>
<td>1</td>
<td>0.25</td>
</tr>
<tr>
<td>Social responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing component</td>
<td>1</td>
<td>1/5</td>
<td>0.17</td>
</tr>
<tr>
<td>Investment and innovation component</td>
<td>5</td>
<td>1</td>
<td>0.83</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing component</td>
<td>1</td>
<td>7</td>
<td>0.88</td>
</tr>
<tr>
<td>Investment and innovation component</td>
<td>1/7</td>
<td>1</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Source: authors’ own analysis.

Two matrixes of priorities are formed, on the basis of tables 1 and 2 (formula 1). Matrix \( A \) shows priorities of two components of balanced development (matrix’s lines) in achieving economic viability, social responsibility and environmental sustainability (matrix’s columns) accordingly. Matrix \( B \) characterizes the priority economic, social and ecological factors in achieving balanced development as a whole.

\[
A = \begin{bmatrix} 0.75 & 0.17 & 0.88 \\ 0.25 & 0.83 & 0.12 \end{bmatrix} \quad \text{and} \quad B = \begin{bmatrix} 0.28 & 0.64 \\ 0.08 & 0.08 \end{bmatrix}
\] \quad (1)

As a result of multiplying these two matrices, a required priority vector \( (C) \) is formed (formula 2).

\[
C = \begin{bmatrix} 0.39 & 0.61 \end{bmatrix}
\] \quad (2)

It defines the priority of the investment and innovation component, with its sixty-one-per cent impact on ensuring balanced development, in comparison with the thirty-nine-per cent impact of the manufacturing component.

4. Conclusions

In sum, the obtained results have applied character and make it possible to structure and arrange hierarchically compound and complex problems of ensuring balanced development. This reduces the rate of uncertainty and subjectivity of decisions for their solution.

During the research it has been established that the basis of ensuring balanced development is the problem of a socio-economic interconnection between the enterprise, society and environment. Analyzing the organization in terms of preserving its integrity, stability of
operation and dynamic development, highlights the importance of holding balance as a principle to act. Following this principle gives an opportunity to reduce low manageability and bankruptcy risks because of the disintegrated burden of social responsibility, ecological limits and expenditures. It is proven that in terms of the concept realization of corporate social responsibility and sustainable development, this may be realized thanks to the balance of stakeholders, who usually include in their group the society and natural environment. Thanks to implementing AHP, a five-level hierarchy is formed. Its focus means such conditions when balanced development is realized. Due to general forces which influence resolving the problem, actors with their own aims and components, ensuring balanced development is separated. The intensity and impact rate of each level of the problem’s focus are formalized and estimated.

References


