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*Dejana Zlatanović**

A HOLISTIC APPROACH TO CORPORATE SOCIAL RESPONSIBILITY AS A PREREQUISITE FOR SUSTAINABLE DEVELOPMENT: EMPIRICAL EVIDENCE

ABSTRACT: *The growing importance of sustainable development and corporate social responsibility (CSR) for contemporary organizations demands appropriate holistic tools. The paper highlights how Soft Systems Methodology (SSM), a relevant holistic, i.e., soft systems approach, supports the conceptualization and management of the complex issues of CSR and sustainable development. The SSM's key methodological tools are used: rich picture, root definitions, and conceptual models. Empirical research compares a selected sample of enterprises in the automotive industry in the Republic of Serbia, to identify possible systemically desirable and culturally feasible changes to improve their CSR behaviour through promoting their sustainable development. Some limitations of this research and of SSM application are discussed. Combining SSM with some other systems approaches, such as System Dynamics or Critical Systems Heuristics, is recommended for future research.*

KEY WORDS: *Corporate Social Responsibility; Sustainable Development; Holistic Approach, Soft Systems Methodology*

JEL CLASSIFICATION: M14, M21, Q01

* Faculty of Economics, University of Kragujevac, Republic of Serbia, E-mail: dejanaz@kg.ac.rs

1. INTRODUCTION

Contemporary circumstances, characterized by the increasing complexity and diversity of management problems, imply a need for holistic, i.e., a systems approach to problem-solving and decision-making. Therefore, various systems approaches to problem solving, i.e., systems methodologies for problem situations structuring, have been developed (Petrović, 2004).

The topic of this paper is a soft systems approach to corporate social responsibility (CSR) as a key precondition for sustainable development. The Soft Systems Methodology (SSM) is applied as a relevant soft, i.e., interpretive systems approach to CSR. Sustainable development and CSR, as highly complex, dynamic, and multi-meaning problem areas, i.e., systems of problems or problem situations in contemporary enterprises, are investigated in the conceptual framework of SSM. Accordingly, a rich picture, root definitions, and conceptual models are used as the relevant methodological SSM tools. The aim is to show how SSM can support the conceptualization and management of complex CSR and sustainable development issues.

Theoretical models of managing CSR as a key assumption of sustainable development were first built based on the International Standards Organization - ISO's (2010) ISO 26000 guidelines. By comparing the models within the real world, the actual state of CSR behaviour in a research sample of Serbian automotive industry enterprises was identified by primary data collection through an appropriate questionnaire. The investigation identified relevant stakeholders'opinions on managing sustainable development and CSR in the researched market segment; i.e., whether stakeholders think that certain CSR activities are systemically desirable and culturally feasible and whether and to what extent these activities are implemented in the researched sample of businesses. SPSS software package version 20.0 was used for data processing. By comparing the research results with conceptual models and root definitions, possible improvements of CSR behaviour were identified.

The key hypothesis in the paper is as follows: SSM application in managing CSR can enable holistic research of different, opposing stakeholder views as well as identify systemically desirable and culturally feasible changes that improve businesses'CSR behaviour.

2. THEORETICAL BACKGROUND

A general definition of sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development - WCED 1987). The National Sustainable Development Strategy of the Republic of Serbia, which was adopted in 2008 in acknowledgement of the importance of sustainable development, defines sustainable development as a "target-oriented, continuous, comprehensive and synergetic process with impacts on all aspects of life (economic, social, environmental and institutional) at all levels". There are three key factors or pillars of sustainable development: economic (sustainable economic growth and economic and technological progress), social (sustainable social development based on social balance), and ecological (environmental protection accompanied by reasonable use of natural resources).

In contemporary circumstances, sustainable development is an important strategic goal for businesses, whose behaviour should be focused on meeting societal needs, generating profit, creating jobs, investing in future business development, and the development of society (Knez-Riedl et al., 2006). Hence CSR should be investigated as a key prerequisite of sustainable development. It includes the systems theory concepts of 'interdependence' and 'holism' as the attributes linking its contents and supports them by the seven principles set out in ISO 26000 (ISO 2010).

As a main precondition of sustainable development, CSR is becoming increasingly important in the operation of contemporary businesses. A key idea of CSR is that companies cannot be isolated from their environment, i.e., societal problems and needs (Golob et al. 2014), which implies obligations towards stakeholders. Generally, CSR concerns companies' actions beyond their legal obligations towards society and the environment (Ženko et al. 2013). Ženko et al. (2013) found the following aspects of CSR to be crucial to modern business:

- Modern businesses need a strategic approach to CSR, because CSR enables many benefits such as better customer relationships, easier access to capital, increased innovation capacity, etc.
- CSR helps businesses to better perceive dynamic societal expectations and working conditions. Hence, new markets and possibilities for sensible growth can be created.

- With CSR, businesses can build long-term relations with all partners, including employees, and gain their trust and loyalty as a basis for sustainable development.
- CSR especially matters in the current economic crisis, by helping to alleviate its social effects.
- The current crisis has negative social consequences, including consumer mistrust. Accordingly, the "EU aims to create conditions favourable to sustainable development, responsible business behaviour and durable employment-generation in the medium- and long-term" (Ženko et al. 2013).

As interactive phenomena, CSR and sustainable development have been much researched (e.g., Auger et al. 2003; Xueming et al. 2003; Maignan 2004; Prosenak et al. 2008; Peloza and Sang 2011; Reynolds 2008; Sharma et al. 2010). There are numerous international standards and documents in this area, but ISO 26000 was the first to introduce an interdependent and holistic approach, and so is crucial in the considered context. According to ISO 26000, CSR involves the following core subjects: organizational governance, human rights, labour practices, the environment, fair operating practices, consumer issues, and community involvement and development. Its principles include accountability, transparency, and ethical behaviour; and respect for stakeholders, the rule of law, international standards, and human rights (ISO 2010).

CSR and sustainable development are complex, dynamic, and ambiguous phenomena that can be best researched in the conceptual framework of systems thinking. The question is: which systems approach should be applied to CSR as a prerequisite for sustainable development?

In Operational Research/Management Science (OR/MS) there is increased interest in the various ethical questions and ways of applying OR/MS tools to solve problems involving ethical considerations (Kunsch et al. 2009; Rauschmayer et al. 2009; Le Menestrel and Van Wassenhove 2009; Ormerod and Ulrich 2013. Rauschmayer et al. (2009) highlight the numerous limitations and challenges of traditional OR in dealing with ethical problems. Kunsch et al. (2009) emphasize that traditional OR cannot adequately contribute to researching the ethical problems of contemporary society, such as sustainable development. Accordingly they propose "more advanced instruments from systemic streams of OR", such as Soft Systems Methodology (SSM) and System Dynamics (SD), as the relevant tools for conceptualizing and managing sustainable development. The relevance of SSM for dealing with complex sustainability issues is also acknowledged in the work of Bell and Morse (2005).

Espinosa et al. (2008) suggest a cybernetic approach to sustainability that implies a continual process consisting of dynamic relationships between viable organizations and the environment: sustainability is related much more to the context than to the organizations themselves. Espinosa and Walker (2011, pp. 65-67) indicate the relevance of the Team Syntegrity approach to sustainable development.

However, it is important to emphasize that no matter which systems approach is chosen, there will be difficulties with its application because sustainability issues are complex and ambiguous and include natural and social phenomena and different perceptions, viewpoints, and political effects (Midgley and Reynolds 2004). Here, we choose to use SSM.

Soft Systems Methodology

Soft Systems Methodology (SSM) as a representative of soft systems thinking deals with unstructured, ill-defined management problems or messes, i.e., problem situations characterized by complexity and pluralism. One of the main features of these soft situations is the existence of different, opposing views of problem situations, which result in numerous "relevant problems" (Petrović 2010, p. 488). Theoretically, changing the paradigm of functionalism to an interpretive paradigm is relevant to SSM, which implies respecting the differences between hard and soft systems thinking (Zexian and Xuhui 2010), such as understanding the system's concept, philosophical base, and principles of acquiring knowledge. In the specified context it is very important to emphasize the following: in hard systems thinking, systems are objective entities of the real world, while in soft systems thinking the systems are subjective human constructs. SSM tends to involve different perceptions of reality, facilitating the learning process by examining and discussing different viewpoints on the way to purposeful action and improvement (Jackson 2003, p. 185). Consequently, the systemicity concept is "transferred from the real world to the process of inquiry into the perceived real world"(Checkland 2012).

SSM is based on action research. Action research implies that the researchers both observe the researched phenomenon and participate in it. First of all, when researching the problem situation it is necessary to develop relevant models of the situation, i.e., valid ways to represent it. Then appropriate methodologies for problem situations structuring have to be developed. Finally, intervention in the problem situation is essential, i.e., developed models, methodologies, and

methods should be applied to the researched problem situation in order to test and further develop it (Petrović 2010, pp. 279-280).

As a learning cycle based on action research, SSM consists of the following key stages (Checkland 2000):

1. Finding out about a problem situation through rich pictures and root definitions;
2. Formulating the conceptual models of purposeful activity;
3. Debating the problem situation by comparing conceptual models with reality;
4. Taking action in the situation, i.e. implementing changes leading to the improvement of the problem situation.

As the first stage of SSM application, rich pictures present a holistic tool for the representation of problem situations. The key participants and their interests, perceptions, and interactions are represented by rich pictures. The aim is to "capture the main entities, structures and viewpoints in the situation, the process going on, the current recognized issues and any potential ones" (Checkland and Poulter 2010, p. 210). In this way the rich picture is a base for further researching the problem situation. Root definitions reflect different perspectives and can be seen as concise descriptions of the purposeful activity system (relevant system) based on particular viewpoints. Root definitions are not simple empirical descriptions but representations of what the system should be (Christis 2005). The CATWOE mnemonic was developed to formulate the root definitions, and consists of the following six components (Checkland and Tsouvalis 1997):

- **C** *(Customers)* - those who have benefits or damages caused by purposeful activity;
- **A** *(Actors)* - those who would implement the purposeful activity;
- **T** *(Transformation process)* - purposeful activity, i.e., transformation of input to output;
- **W** *(Weltanschauung)* – worldview which makes the purposeful activity meaningful in the selected context;
- **O** *(Ownership)* - those who could stop the purposeful activity;
- **E** *(Environmental constraints)* - elements outside the system taken as given.

While the root definitions represent the system, i.e., the purposeful activity, the conceptual models represent activities that the system must undertake to be the system named in the root definition (Checkland and Tsouvalis 1997). Checkland (1996, p. 170) indicates that conceptual model-building should start from the

verbs expressing the key activities within the root definitions. In the comparison phase, intuitive perceptions of the problem situation are connected to systemic construction. Thus an epistemologically deeper and more general presentation of reality is provided (Checkland 1996, pp. 177-178). The relevant result of the comparison phase is an assessment of the problem situation from which the debate on possible changes is derived. The debate should lead to identification of changes that must meet the following criteria: systemic desirability (derived from the selection of root definitions and conceptual models) and cultural feasibility (given the characteristics of the particular situation, i.e., norms, values, experiences of people in the situation) (Checkland 1996, p. 181). These changes should be implemented as the final stage of SSM application.

3. AN ILLUSTRATION OF POSSIBLE SSM APPLICATION IN STRUCTURING CSR

As a complex problem situation, CSR consists of numerous parts (e.g., the relevant areas of CSR, i.e., the core subjects according to ISO 26000) that can be further decomposed. These parts are both interrelated and related to the relevant environment, i.e., other problem situations. The environment of the researched problem situation implies identifying its key component, such as existing and potential customers, suppliers, competition, and the political, legal, social, and cultural contexts in which the researched enterprises operate.

When researching CSR as a pluralist problem situation, the focus is on the stakeholders. According to Belak (2013), CSR can enable enterprises "to identify all stakeholders and their interests through research and analysis, to make the strategy to fulfil their needs, to set the structure and culture to enable the fulfilling of all stakeholders' interests, and to set institutions for monitoring and control".

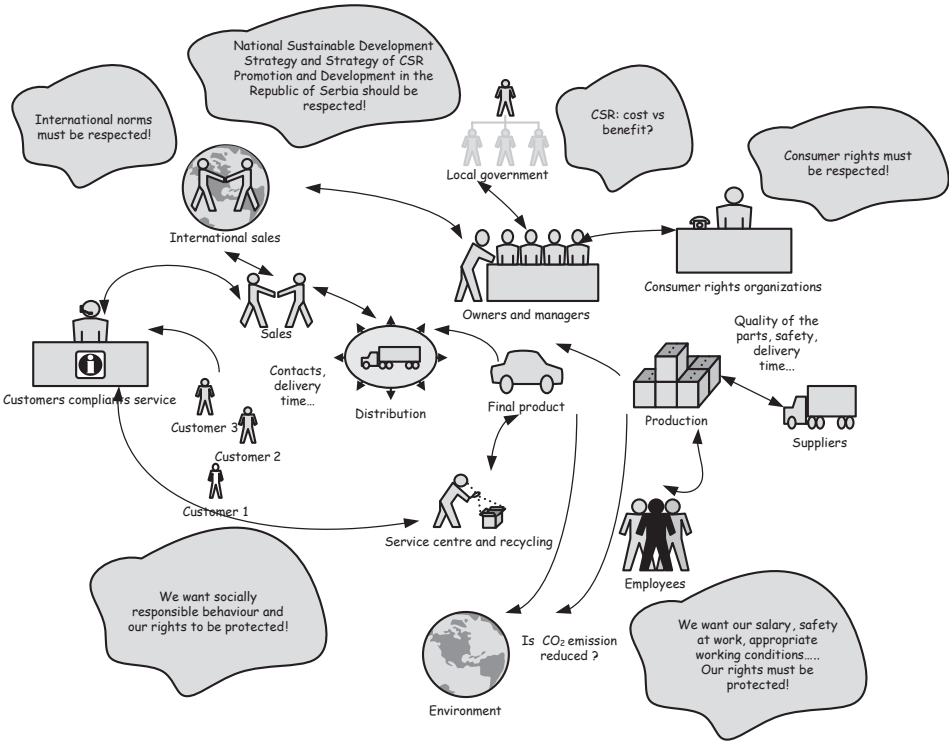
Accordingly, SSM, a relevant soft, i.e., interpretive systems methodology, could be applied to structure CSR as a complex-pluralist problem situation. This paper explores the application of SSM to a selected sample of businesses in the automotive industry in the Republic of Serbia, which determines the rich picture, root definitions, and conceptual models.

Rich picture

The first stage in SSM application is to build a rich picture of the situation under consideration. As holistic tools, rich pictures represent the key participants, i.e., stakeholders, and their perceptions and interactions (Zlatanović 2010). As this

research focuses on a sample of Serbian businesses in the automotive industry, the rich picture of the considered problem situation can be presented as follows (Figure 1):

Figure 1. A possible rich picture of the problem situation - CSR of automotive industry businesses as a prerequisite for their sustainable development



Source: Author

Root definitions

The rich picture is the basis for formulating root definitions. The root definitions are concise descriptions of purposeful system activity based on a Weltanschauung, i.e., concise description of what the system should be. In formulating root definitions, core issues or activities and the principles of CSR business according to ISO 26000 are particularly important. Therefore, managing CSR as a relevant system, RS_1, can be presented through the following CATWOE mnemonic:

C – Local/national/international economy, society as a whole.
A – Research sample of Serbian businesses in the automotive industry.
T – Traditional companies – transformation process – socially responsible businesses aiming at sustainable development.
W – Modern companies are operating in a world in which there is a tendency towards the growing importance of CSR and its influence on business success.
O – Companies' owners and managers, employees and other crucial stakeholders, CSR professionals.
E – Legal constraints, standards, and guidelines (e.g., ISO 26000).

Based on the presented CATWOE and respecting the ISO 26000 guidelines, the root definition of the relevant system RS_1 can be as follows:

The relevant system RS_1: A knowledge-based system covering the selected issues (human rights, consumer issues, environmental protection, community involvement and development, etc.) and principles (accountability, transparency, ethical behaviour, etc.) that create CSR behaviour may contribute to sustainable development and business success.

Since in contemporary circumstances the trust of customers/consumers/users is decreasing, improving relations with customers/consumers/users is one of the most important activities of businesses' CSR behaviour. In fact, improvement of these relations can be seen as a subsystem of CSR. In the conducted empirical research, certain activities were investigated as part of the consumer issues subsystem and systematized through the three following areas: elements of CSR marketing; protection of safety, the health of users, and the environment; and post-sales activities contributing to CSR behaviour. Accordingly, the CATWOE elements could be as follows:

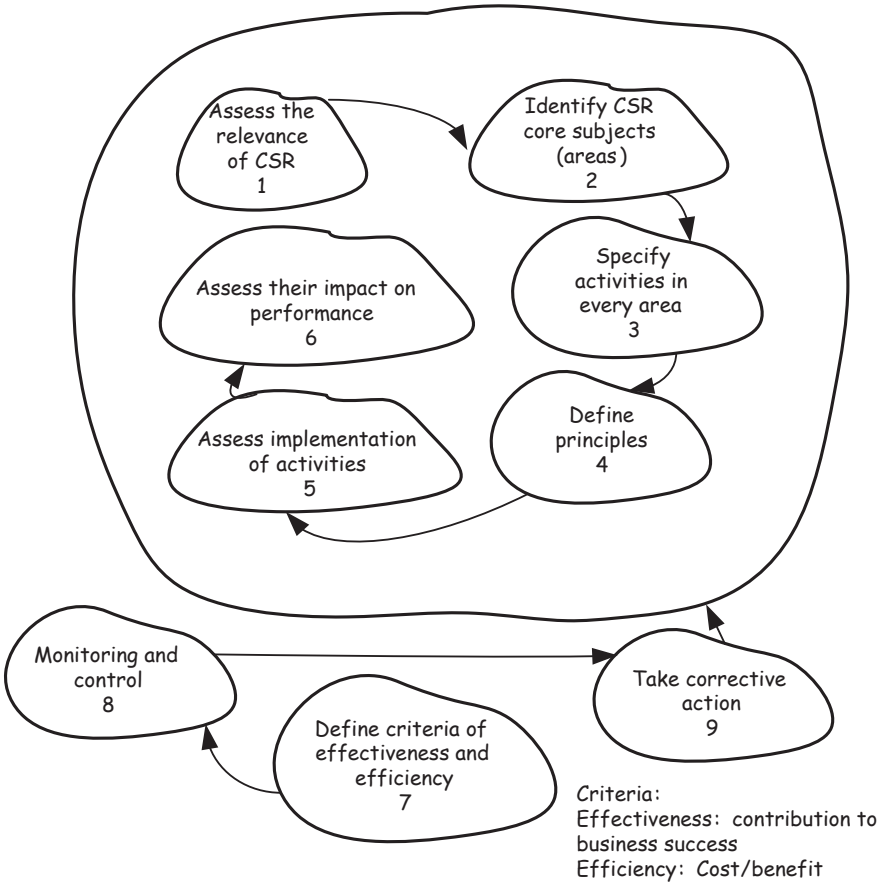
C – Customers/consumers/users, local/national/international economy, society as a whole.
A – Research sample of Serbian businesses in the automotive industry.
T – Mistrust of customers/consumers/users – transformation process – increased trust of customers/consumers/users and increased number of loyal customers/consumers/users.
W – Modern companies are operating in a world tending towards decreased trust of customers/consumers/users, resulting in increasing importance of CSR for business success.

O – Companies' owners and managers, employees, and other crucial stakeholders, consumer rights organizations.
E – Legal constraints, standards, and guidelines.

Based on the above CATWOE mnemonic, the root definition could be as follows:

The relevant system RS_2: A knowledge- and CSR-values-based business system consisting of socially responsible marketing, protection of users' health and safety and of the environment, post-sales activities that contribute to the increased trust of customers/consumers/users, and CSR behaviour that thus positively impacts enterprises' performance through customer loyalty, increased sales, etc.

Figure 2. Conceptual model of relevant system RS_1



Source: adapted from Checkland and Sholes, 2007

Conceptual models

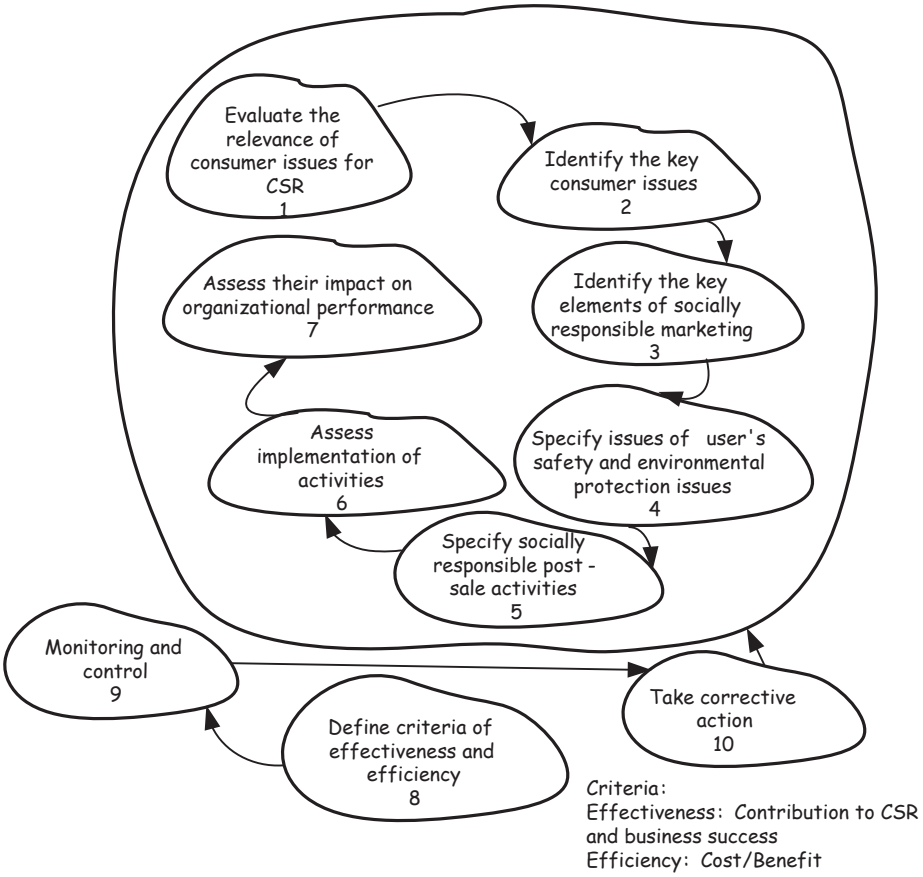
These root definitions and relevant systems are not simple empirical descriptions: they say what the system of CSR should be. In this they present the conceptual rather than the empirical stage of research (Christis 2005). Based on relevant system RS_1 and root definition RD_1, the system of managing CSR involves several activities presented in the conceptual model in Figure 2.

Improving relations with customers/consumers/users as selected relevant system RS_2 and root definition RD_2 is presented in the conceptual model in Figure 3.

Comparing conceptual models with the real world – empirical research in a sample of Serbian businesses

According to the conceptual models presented above, ISO 26000 guidelines, and certain research related to CSR (e.g., Homburg 2013; Maignan et Ferrell 2004; Peloza and Sang 2011; Sharma et al., Vlachos et al. 2009; Xueming et al. 2006), a questionnaire was created to collect data about 1) the relevance (systemic desirability and cultural feasibility) of some CSR activities in the research sample of businesses and 2) the extent of their implementation. To ensure the necessary number of businesses for the sample, data collection included sending questionnaires with the cover letter via electronic mail to selected companies. The sample included employees in the biggest and most important company in Serbia's automotive industry, and employees in enterprises that are its relevant external stakeholders (representatives of suppliers, competition, customers). Ten out of the 16 businesses contacted responded, and employees, chosen by managers, completed 83 questionnaires. A five-point Likert scale was used to measure all variables. SPSS software package version 20.0 was used for data processing. The research sample consists of respondents that differed regarding gender, age, level of education, type of education, and position in the organization. In this research the following respondents dominate: males (54.4%), 36-45 years old (48.1%), with a bachelor's degree (66.2%) in technical sciences (55.7%), and employees in purchasing services (25.3%).

Figure 3. Conceptual model of relevant system RS_2



Source: adapted from Checkland and Sholes, 2007

Research results

By consulting similar research (e.g., Homburg et al. 2013; Pérez and Rodríguez del Bosque 2013; Torugsa et al. 2013; Xueming and Bhattacarya 2006), exploratory factor analysis was carried out to describe connections between the many variables through a few random variables called factors. This analysis is based on the assumption that variables can be grouped by their correlations: every group consists of variables with a high correlation intensity. In order to check if the data are appropriate for factor analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy **(KMO) and** Bartlett's Test of Sphericity were used. Since KMO=0.851 (KMO>0.6) and Bartlett's Test of Sphericity is statistically significant (p=0.000),

we concluded factor analysis to be justified. The results of the factor analysis are shown in Table 1.The reliability of the measurement scale was also tested using Cronbach's Alpha coefficient.

As presented in Table 1, the following five groups of CSR activity, i.e., factors, were distinguished: *CSR as a prerequisite for sustainable development (*Cronbach's Alpha 0.910*), Elements of socially responsible marketing (*Cronbach's Alpha 0.948*), Activities aimed at protection of user's health and the environment (*Cronbach's Alpha 0.925*), Post-sales activities contributing to CSR (*Cronbach's Alpha 0.912*),* and *Performance of socially responsible business (*Cronbach's Alpha 0.904*).* The high values of the Cronbach's Alpha coefficient pointed to high internal consistency.

In the given context, the results of the descriptive statistics are particularly important for identifying systemically desirable and culturally feasible changes that improve businesses' CSR behaviour. The results of the descriptive statistics, i.e. the mean and standard deviation (as presented in Table 2, Table 3, Table 4, Table 5, and Table 6) indicate the following conclusions:

Within the first specified factor of analysis (Table 2), the item with the lowest mean value is $\boldsymbol{V_5}$ *Standards and guidelines for CSR are well known (e.g., ISO 26000 or Strategy of CSR Promotion and Development in the Republic of Serbia for 2010-2015*) (M=2.80), while the item with the highest mean value is $\mathbf{V_{1:}}$ Corporate *socially responsible behaviour aimed at sustainable development is an integral part of business operations* (M=3.73). Besides item $\mathbf{V_5}$, the following items should also be improved: $\mathbf{V_{3}}$ - *Antitrust laws are respected* (M=3.22), $\mathbf{V_{10}}$ - *Information about socially responsible activities are available (e.g., on website)* (M=3.23), $\mathbf{V_{4}}$ - *All employees are involved in implementing CSR* (M=3.25), and $\mathbf{V_{9}}$ - *Procedures to prevent corruption are developed* (M=3.25). These activities represent systemically desirable and culturally feasible changes.

Table 1. Factor analysis results

Factors	Factor loadings	Eigenvalue	% of Variance	KMO
Factor 1: CSR as a prerequisite for sustainable development		5,592	55,924	0,851
V_1 Corporate socially responsible behaviour aimed at sustainable development is an integral part of business operations	,849			
V_7 Working conditions that have positive impact on health and safety of employees are enabled	,827			
V_6 Ethical standards and norms are respected in business operations	,797			
V_2 CSR and sustainable development are incorporated in the strategic documents of business	,776			
V_8 Business operations do not negatively affect environment and relevant stakeholders	,775			
V_9 Procedures to prevent corruption are developed	,757			
V_4 All employees are involved in implementing CSR	,735			
V_{10} Information about socially responsible activities are available (e.g., on website)	,679			
V_3 Antitrust laws are respected	,653			
V_5 Standards and guidelines for CSR are well known (e.g., ISO 26000 or Strategy of CSR Promotion and Development in the Republic of Serbia for 2010-2015)	,591			
Factor 2: Elements of socially responsible marketing		5,915	73,935	0,895
V_{12} Customers/consumers have access to all product information	,890			
V_{15} Specific types of customers/consumers (e.g., people with disabilities) are not discriminated against	,884			
V_{14} Clear and understandable contracts with customers exist, implying inability to change them unilaterally	,878			
V_{17} No stereotypes (race, religion, gender, etc.) are encouraged by promotions/advertising	,857			
V_{18} Customers are not misled by promotions/advertising	,845			
V_{13} Fair operating practice in forming prices is implemented	,845			
V_{16} Sales contracts imply customers rights protection and sanctions if contracts are violated	,845			
V_{11} Product quality is continually improving	,832			

Factors	Factor loadings	Eigenvalue	% of Variance	KMO
Factor 3: Activities aimed at protection of user's health and the environment		4,863	69,467	0,923
$\mathbf{V_{24}}$ Products are made of materials contributing to sustainable development (e.g., energy saving)	,895			
$\mathbf{V_{20}}$ Discovered product deficiencies are clearly marked and customers are acquainted with them	,871			
$\mathbf{V_{25}}$ Technology reducing the emission of pollutants is used in production (e.g., CO_2 emissions)	,861			
$\mathbf{V_{19}}$ Products are safe for people and the environment; safety is verified by implementation of the appropriate standards	,855			
$\mathbf{V_{21}}$ No part of the product negatively affects consumers' health and safety	,804			
$\mathbf{V_{22}}$ User guides are clearly written in order to protect consumer health and safety	,774			
$\mathbf{V_{23}}$ Recycling is encouraged	,766			
Factor 4: Post-sales activities contributing to CSR		4,612	65,889	0,862
$\mathbf{V_{29}}$ Customers' privacy is protected by not using customers data for promotions or any other purpose that customers disagree with	,855			
$\mathbf{V_{30}}$ Different types of customer are taken care of (e.g., through financial benefits)	,843			
$\mathbf{V_{27}}$ Defective products can be returned and the damage compensated	,832			
$\mathbf{V_{31}}$ Consumer's education is encouraged	,829			
$\mathbf{V_{28}}$ Regular product service is enabled	,804			
$\mathbf{V_{32}}$ Cooperation with consumer rights organizations is continually improving	,769			
$\mathbf{V_{26}}$ There is a service for customers' complaints	,746			
Factor 5: Performance of socially responsible business		3,629	72,589	,816
$\mathbf{V_{33}}$ Company's image is improving	,886			
$\mathbf{V_{35}}$ Customers'/consumers' loyalty is enabled	,864			
$\mathbf{V_{37}}$ Better competitive position is achieved	,853			
$\mathbf{V_{34}}$ Sales are increasing	,838			
$\mathbf{V_{36}}$ Profits are increasing	,817			

KMO=0.851; p=0.000

Source: Author's survey data

Table 2. CSR as a prerequisite for sustainable development: mean and standard deviation

CSR as a prerequisite for sustainable development	M	SD
$\mathbf{V}_1$ Corporate socially responsible behaviour aimed at sustainable development is an integral part of business operations	3,73	1,105
$\mathbf{V}_7$ Working conditions that have positive impact on health and safety of employees are enabled	3,69	1,199
$\mathbf{V}_6$ Ethical standards and norms are respected in business operations	3,61	1,124
$\mathbf{V}_2$ CSR and sustainable development are incorporated in the strategic documents of business	3,59	1,013
$\mathbf{V}_8$ Business operations do not negatively affect environment and relevant stakeholders	3,55	1,202
$\mathbf{V}_9$ Procedures to prevent corruption are developed	3,25	1,177
$\mathbf{V}_4$ All employees are involved in implementing CSR	3,25	1,177
$\mathbf{V}_{10}$ Information about socially responsible activities are available (e.g., on website)	3,23	1,299
$\mathbf{V}_3$ Antitrust laws are respected	3,22	1,094
$\mathbf{V}_5$ Standards and guidelines for CSR are well known (e.g., ISO 26000 or Strategy of CSR Promotion and Development in the Republic of Serbia for 2010-2015)	2,80	1,304

Source: Author's survey data

For the second factor the results are as follows (Table 3): Whereas the mean values of all items in this factor are generally high, items $\mathbf{V}_{13}$ - *Fair operating practice in forming prices is implemented* (M=3.43), and $\mathbf{V}_{18}$ - *Customers are not misled by promotions/advertising* (M=3.45) are systemically desirable and culturally feasible changes that need improvement.

Table 3. Elements of socially responsible marketing: mean and standard deviation

Elements of socially responsible marketing	M	SD
$\mathbf{V}_{11}$ Product quality is continually improving	3,89	,937
$\mathbf{V}_{14}$ Clear and understandable contracts with customers exist, implying inability to change them unilaterally	3,73	1,149
$\mathbf{V}_{16}$ Sales contracts imply customers rights protections and sanctions if contracts are violated	3,72	1,182
$\mathbf{V}_{12}$ Customers/consumers have access to all product information	3,71	1,088

V_{17} No stereotypes (race, religion, gender, etc.) are encouraged by promotions/advertising	3,65	1,263
V_{15} Specific types of customers/consumers (e.g., people with disabilities) are not discriminated against	3,65	1,338
V_{18} Customers are not misled by promotions/advertising	3,45	1,328
V_{13} Fair operating practice in forming prices is implemented	3,43	1,084

Source: Author's survey data

The results of the descriptive statistics for the third factor (Table 4) indicate that V_{21} - *No part of the product negatively affects consumers' health and safety* (M=3.37), V_{25} - *Technology reducing the emission of pollutants is used in production (e.g., CO_2 emissions)* (M=3.39), V_{20} - *Discovered product deficiencies are clearly marked and customers are acquainted with them* (M=3.49), and V_{24} - *Products are made of materials contributing to sustainable development (e.g., energy saving* (M=3.53) are all possible systemically desirable and culturally feasible changes.

Table 4. Activities aimed at protection of user's health and the environment: mean and standard deviation

Activities aimed at protection of user's health and the environment	**M**	**SD**
V_{22} User guides are clearly written in order to protect consumers' health and safety	3,93	1,022
V_{19} Products are safe for people and the environment; safety is verified by implementation of the appropriate standards	3,92	1,027
V_{23} Recycling is encouraged	3,73	1,155
V_{24} Products are made of materials contributing to sustainable development (e.g., energy saving)	3,53	1,193
V_{20} Discovered product deficiencies are clearly marked and customers are acquainted with them	3,49	1,193
V_{25} Technology reducing the emission of pollutants is used in production (e.g., CO_2 emissions)	3,39	1,208
V_{21} No part of the product negatively affects consumers' health and safety	3,37	1,227

Source: Author's survey data

Items V_{32} - *Cooperation with consumer rights organizations is continually improving* (M=2.95), V_{31} - *Consumer's education is encouraged* (M=3.15), *and* V_{30} - *Different types of customer are taken care of (e.g., through financial benefits)*

(M=3.46) are also systemically desirable and culturally feasible changes within the fourth factor (Table 5).

Table 5. Post-sales activities contributing to CSR: mean and standard deviation

Post-sales activities contributing to CSR	**M**	**SD**
V_{28} Regular product service is enabled	4,05	1,023
V_{26} There is a service for customers' complaints	3,95	,974
V_{29} Customers' privacy is protected by not using customers data for promotions or any other purpose that customers disagree with	3,89	1,115
V_{27} Defective products can be returned and the damage compensated	3,82	1,149
V_{30} Different types of customer are taken care of (e.g., through financial benefits)	3,46	1,233
V_{31} Consumer's education is encouraged	3,15	1,248
V_{32} Cooperation with consumer rights organizations is continually improving	2,95	1,216

Source: Author's survey data

Finally, within the fifth factor, *Performance of socially responsible business,* the mean values of all items are very high (M>3.80). This indicates that respondents evaluate socially responsible activities as very important to organizational performance.

Table 6. Performance of socially responsible business: mean and standard deviation

Performance of socially responsible business	**M**	**SD**
V_{33} Company's image is improving	4,33	,813
V_{35} Customers'/consumers' loyalty is enabled	4,13	,947
V_{37} Better competitive position is achieved	3,95	,961
V_{34} Sales are increasing	3,92	,927
V_{36} Profits are increasing	3,89	,963

Source: Author's survey data

DISCUSSION

Although the results of the descriptive statistics show a high level of CSR activity in the researched businesses, they also indicate that some of these activities could

be improved. The changes identified in the descriptive statistics results should be implemented in the examined businesses to improve CSR behaviour contributing to sustainable development. Some activities specified in the conceptual models, such as monitoring and control, taking corrective action, etc. have not been examined, because the focus was the extent of implementation of certain socially responsible activities. The obtained results could be used to support corrective action.

The researched businesses could benefit from the implementation of the specified systemically desirable and culturally feasible changes, i.e., could improve their real CSR performance indicators. Weber (2008) emphasizes the following five main areas of CSR business benefits: positive effects on company image and reputation, positive effects on employee motivation, retention, and recruitment, cost savings, revenue increases from higher sales and market share, CSR-related risk reduction and risk management. In addition, it is argued that CSR can be seen as an investment in human capital, the environment, and stakeholder relationships, resulting in competitive advantage.

Some of the above-mentioned CSR benefits were examined in this research. The relatively high mean values of items involved in the fifth factor, *Performance of socially responsible business,* suggest that respondents assess CSR activities as very important for business success. In fact, the high mean value of item V_{33} *Company's image is improving,* is in accordance with the fact that in Serbian businesses, CSR is mainly viewed as an advertising tool, i.e., the way to build a good reputation (Ivanović-Đukić 2011).

Ivanović-Đukić (2011) emphasizes that community involvement and environmental issues are important elements of CSR in Serbian businesses. However, much less attention is paid to the internal dimension of CSR, such as safety at work. Presented research results partially confirm this view. Some of the environmental issues included in this survey have high mean values (e.g., V_{19} *Products are safe for people and the environment; safety is verified by implementation of the appropriate standards*), but some of them (for example, V_{25} *Technology reducing the emission of pollutants is used in production)* are the activities that should be improved in the researched companies, i.e., present socially desirable and culturally feasible changes. At the same time, item V_{7} *Working conditions that have positive impact on health and safety of employees are enabled* - has a high mean value (Table 2).

The empirical research results also show that some environmental issues figure prominently in the selected sample of Serbian businesses. This observation is in line with earlier studies that resulted in the Strategy for CSR Promotion and Development in the Republic of Serbia for 2010-2015, and suggests that an increase in environmental policy is visible in Serbian companies as a result of rising consciousness of pollution problems and Serbia's higher international profile. According to Simić (2014, p. 592) this strategy also emphasizes the weakness of the following CSR practices in Serbia: lack of knowledge in applying CSR activities, lack of knowledge in defining CSR (in Serbian businesses, CSR is often narrowly defined in terms of philanthropy or respect for the law, when it is a more complex concept), inability to recognize different CSR benefits, inadequate involvement of employees in the decision-making process, etc.

The following key constraints of the empirical research are as follows. Firstly, one of the basic constraints is the unwillingness of potential respondents to participate in the research. The main reasons given were lack of time and the business's policy preventing employees from participating. The sample is therefore determined by companies' willingness to cooperate, and hence is not fully random. Although the response rate was relatively high (about 60%), the number of respondents from the different businesses is unbalanced, as is the willingness of management to allow employees to participate. This determined the sample size and structure, causing another research constraint. However, as the empirical research focused on selected businesses in the Serbian automotive industry, the sample size is formally satisfactory, although relatively small.

As a research tool the questionnaire also has some limitations. The question arises of whether the answers given were 'socially desirable'. Although SSM application implies the participation of different stakeholders and their perceptions, interests, and viewpoints, there is unequal distribution of power and information among stakeholders and so they have different levels of information. When they do have the relevant information, the question remains whether their answers are honest. Despite these limitations, the questionnaire is an appropriate data collection tool, since it can identify soft variables such as the perceptions, viewpoints, and interests of the involved stakeholders. Thus the answers highlight the systemic desirability and cultural feasibility of the items delineating businesses'socially responsible behaviour. The descriptive statistics results indicating relatively high mean values indicate that the respondents consider the items to be important, i.e., systemically desirable and culturally feasible. Meanwhile, activities with a lower mean value ($M \leq 3.50$) should be improved.

Finally, the paper does not address the issue of making systemically desirable and culturally feasible items happen in Stage 4 of SSM. Additional research is required to explore this issue. It would also be worthwhile to use other research instruments than surveys, in view of the limitations regarding truthfulness of answers (Muller and Kolk 2009).

However, the research results demonstrate increasing awareness of CSR issues in the examined businesses. Although this paper does not aim to explore causes, it is possible that the growing awareness of CSR issues is linked to external factors, such as the increased integration of the businesses examined in global supply chains. Similarly, CSR implementation depends on the existence of an institutional and infrastructural framework to support it. CSR requires individuals, societies, and especially decision-makers to be innovatory and embrace interdependence and holism. These are two crucial systems theory concepts that ensure that CSR will develop into a real innovative solution to current social problems (Ženko et al. 2013). Sustainability, responsibility, and systems theory's concepts of 'interdependence' and 'holism' are important guides to the behaviour of contemporary businesses.

Despite its limitations, the presented analysis in the conceptual framework of SSM has some distinctive features compared to similar studies. SSM is one of the most commonly used systems methodologies, with application in different areas such as project management, business strategy, risk management, and organizational design as well as information systems, education, health, etc. (Mingers and Taylor 1992). Checklandand and Sholes (2007) describe many practical applications of SSM. In the practical use of SSM, whenever SSM is used to improve a problem situation the following three elements are brought together in a specific relationship: the methodology, the use of methodology by a practitioner, and the situation itself. The practitioner adapts the principles and techniques of the methodology to organize addressing and intervening in the situation, with the aim of taking action to improve it (Checkland and Poulter 2010, p. 211).

The presented analysis is an attempt to holistically conceptualize and examine one of the relevant areas of contemporary management and marketing, CSR, as a prerequisite for sustainable development in Serbian businesses. This is done using the tools of SSM as an interpretive systems approach. It is important to emphasize that this is an illustration of possible SSM application in a sample of Serbian businesses, using empirical research results as the basis to compare developed root definitions and conceptual models with the real world. Thus

the presented analysis within the conceptual framework of SSM has helped to structure CSR in the examined businesses by identifying the key stakeholders and their perceptions and interactions, as well as the key aspects and issues of CSR, to provide a context for further research. The essence of this analysis emerged from using SSM to structure what is done on the one hand, and on the other hand to determine what is to be done in the area of CSR in the examined businesses by mapping it onto SSM or making sense of it through SSM. Furthermore, the structuring which derives from SSM offers an organized thinking process which enables users to make their way from finding out about a problem situation to defining/taking action to improve it.

The presented approach could be used in future studies as a starting point for further analyses. In order to predict the future effects of specified systemically desirable and culturally feasible changes, SSM could be supported by the tools of System Dynamics – a relevant functionalist systems approach. It might also be insightful for those involved in CSR activities in the Republic of Serbia.

4. CONCLUSIONS AND FUTURE RESEARCH

In dealing with the complex, dynamic, and ambiguous issues of sustainability and CSR, a relevant holistic, i.e., soft systems approach such as SSM is needed. Based on action research as a learning cycle, SSM enables identification of actions leading to the improvement of CSR and sustainable development.

In respect of all the above, it can be concluded that the application of SSM to CSR provides holistic research into the different, opposing perceptions and interpretations of the relevant stakeholders, as well as identifying the systemically desirable and culturally feasible changes that improve CSR and sustainable development. Thus the key hypothesis of the paper is confirmed.

The specified limitations of the empirical research represent guidelines for future research. Future research should focus on a larger number of enterprises and on a more diverse sample structure (different types of employee should be included). The following limitations of SSM application are also very important: SSM enables identifying systemically desirable and culturally feasible changes for improving a considered problem situation. But SSM cannot provide dynamic coherence of the identified changes, i.e., it cannot predict their future effects. In fact, the changes identified by the application of SSM can be implicitly contradictory, conflicting, or ineffective in detailed and dynamically complex

situations. SSM cannot enable cybernetic alignment of the proposed changes (Lane and Oliva 1998). SSM proposes general and often unclear changes and solutions, since they are presented in verbal language, i.e., as words expressing the key activities to be implemented in the real world. SSM also lacks tools to measure whether the concrete change implemented in the real world is actually the one proposed by SSM (Rodríguez-Ulloa et al. 2011). As a consequence, SSM needs to be supported by tools of functionalist-structuralist system approaches, such as System Dynamics (SD).

In order to eliminate the constraint of SSM application related to unequal distribution of power and information among stakeholders, SSM can be combined with some of the emancipatory systems approaches, e.g., Critical Systems Heuristics. Accordingly, combining SSM and other systems approaches is a relevant area for future research.

REFERENCES

Auger, P., Burke, P., Devinney, T.M. & Louviere, J.J. (2003).What Will Consumers Pay for Social Product Features? *Journal of Business Ethics,* 42, pp. 281–304.

Belak, J. (2013). Corporate Governance and the Practice of Business Ethics in Slovenia. *Systemic Practice and Action Research,* 26, pp. 527-535.

Bell S. & Morse, S. (2005). Holism and understanding sustainability. *Systemic Practice and Action Research,* 18, pp. 409–426.

Checkland, P. (1996). *Systems Thinking, Systems Practice*. Chichester: John Wiley and Sons.

Checkland, P. (2000). Soft Systems Methodology: A Thirty Year Retrospective. *Systems Research and Behavioral Science,* 17 (S1), pp. 11-58.

Checkland, P. (2012). Four Conditions for Serious Systems Thinking and Action. *Systems Research and Behavioral Science,* 29, pp. 465–469.

Checkland, P. & Tsouvalis,C. (1997). Reflecting on SSM: The Link Between Root Definitions and Conceptual Models. *Systems Research and Behavioral Science,* 14 (3), pp. 153-168.

Checkland, P. & Scholes, J. (2007). *Soft Systems Methodology in Action: A 30-year retrospective*. Chichester: John Wiley and Sons.

Checkland, P. & Poulter, J. (2010). Soft Systems Methodology. In M. Reynolds and S. Holwell (Eds.), *Systems Approaches to Managing Change*: *A Practical Guide* (pp. 191-242). London: Springer.

Christis, J. (2005). Theory and Practice of Soft Systems Methodology: A Performative Contradiction? *Systems Research and Behavioral Science,* 22 (1), pp. 11-26.

Espinosa, A., Harnden, R. & Walker, J. (2008). A complexity approach to sustainability – Stafford Beer revisited. *European Journal of Operational Research,* 187, pp. 636-651.

Espinosa, A. & Walker, J. (2011). *A Complexity Approach to Sustainability: Theory and Application.* London: Imperial College Press.

Golob, U., Johansen, T.S., Nielsen, A.E. & Podnar, K. (2014). Corporate Social Responsibility as a Messy Problem: Linking Systems and Sense-making Perspectives. *Systemic Practice and Action Research,* 27(4), pp. 363-376.

Homburg, C, Stierl, M. & Bornemann, T. (2013). Corporate Social Responsibility in Business to Business Markets: How Organizational Customers Account for Supplier Corporate Social Responsibility Engagement. *Journal of Marketing,* 77, pp. 54-72.

ISO (2010). ISO 26000:2010 ISO. International Standards Organization. Retrieved from http://www.iso.org/iso/social_responsibility

Ivanović-Đukić, M. (2011). Promovisanje društveno odgovornog poslovanja preduzeća u Srbiji. *Sociologija*, 53 (1), 21-42.

Jackson, M.C. (2003). *Systems Thinking: Creative Holism for Managers.* New York: John Wiley and Sons.

Knez-Riedl, J, Mulej, M. & Dyck, R.G. (2006). Corporate Social Responsibility from the Viewpoint of Systems Thinking. *Kybernetes,* 35 (3/4), pp. 441-460.

Kunsch, P.L, Kavathatzopoulos, I. & Rauschmayer, F. (2009). Modelling complex ethical decision problems with operations research. *Omega,* 37(6), pp. 1100–1108.

Lane, D. & Oliva, R. (1998). The Greater Whole: Towards a Synthesis of System Dynamics and Soft Systems Methodology. *European Journal of Operational Research,* 107 (1), pp. 214-235.

Le Menestrel, M. & Van Wassenhove, L. N. (2009). Ethics in Operations Research and Management Sciences: A never-ending effort to combine rigor and passion. *Omega,* 37, pp. 1039-1043.

Maignan, I. & Ferrell, O.C. (2004). Corporate Social Responsibility and Marketing: An Integrative Framework. *Journal of the Academy of Marketing Science,* 32 (1), pp. 3-19.

Midgley, J. & Reynolds, M. (2004). Systems/Operational Research and Sustainable Development: Towards a New Agenda. *Sustainable Development,* 12, pp. 56–64.

Mingers, J. & Taylor, S. (1992). The Use of Soft Systems Methodology in Practice. *Journal of Operational Research Society*, 43 (4), 321-332.

Muller, A. & Kolk, A. (2009). CSR Performance in Emerging Markets: Evidence from Mexico. *Journal of Business Ethics,* 85, pp. 325-337.

Ormerod, R. J. & Ulrich, W. (2013). Operational research and ethics: A literature review. *European Journal of Operational Research,* 228**,** pp**.** 291-307.

Peloza, J. & Sang, J. (2011). How Can Corporate Social Responsibility Activities Create Value for Stakeholders? A Systematic Review. *Journal of the Academy of Marketing Science,* 39 (1), pp. 117-135.

Pérez, A. & Rodríguez del Bosque, I. (2013). Measuring CSR Image: Three Studies to Develop and to Validate a Reliable Measurement Tool. *Journal of Business Ethics,* 118, pp. 265-286.

Petrović, S.P. (2004). Sistemski prilazi rešavanju praktičnih upravljačkih problema. *Ekonomski anali,* 160, pp. 147-177.

Petrović, S.P. (2010). *Sistemsko mišljenje, Sistemske metodologije*. Kragujevac: Ekonomski fakultet Univerziteta u Kragujevcu.

Prosenak, D., Mulej, M. & Snoj, B. (2008). A requisitely holistic approach to marketing in terms of social well-being. *Kybernetes,* 37 (9/10), pp. 1508-1528.

Rauschmayer, F., Kavathatzopoulos, I., Kunschc, P.L. & Le Menestrel, M. (2009). Why good practice of OR is not enough - Ethical challenges for the OR practitioner. *Omega,* 37, pp. 1089 – 1099.

Reynolds, M. (2008). Getting a Grip: Critical Systems Framework for Corporate Responsibility. *Systems Research and Behavioral Science,* 25, pp. 701-716.

Rodrígez-Ulloa, R.A, Montbrun, A. & Martínez-Vicente, S. (2011). Soft System Dynamics Methodology in Action: A study of the Problem of Citizen Insecurity in an Argentinean Province. *Systemic Practice and Action Research,* 24, pp. 275–323.

Sharma A., Iyer, G.R, Mehrotra, R. & Krishnan, R. (2010). Sustainability and business-to-business marketing: A framework and implications. *Industrial Marketing Management,* 39 (2), pp. 330-341.

Simić, I. (2014). Mikro pristup društvenoj odgovornosti organizacije: interakcija sa ponašanjem zaposlenih. *Teme,* 38 (2), 581-598.

Torugsa, N., A., O'Donohue, W. & Hecker, R. (2013). Proactive CSR: An Empirical Analysis of the Role of its Economic, Social and Environmental Dimensions on the Association between Capabilities and Performance. *Journal of Business Ethics*, 115, pp. 383–402.

Vlachos, P.A, Tsamakos A., Vrechopoulos, A.P. & Avramidis, P.K. (2009). Corporate social responsibility: attributions, loyalty, and the mediating role of trust. *Journal of the Academy of Marketing Science,* 37(2), pp. 170-180.

WCED (1987). *Our Common Future – Report*. UN World Commission on Environment and Development. Retrieved from http://www.un-documents.net/our-common-future.pdf

Weber, M. (2008). The business case for corporate social responsibility: A company-level measurement approach for CSR. *European Management Journal*, 26, pp. 247-261.

Xueming, L. & Bhattacarya, C.B. (2006). Corporate Social Responsibility, Customer Satisfaction and Market Value. *Journal of Marketing,* 70 (4), pp. 1-18.

Ženko, Z., Hrast, A. & Mulej, M. (2013). Social Responsibility: Measures and Measurement as a Basis for Organizational Systemic Action. *Systemic Practice and Action Research,* 26 (6), pp. 475-484.

Zexian, Y. & Xuhui, Y. (2010). A Revolution in the Field of Systems Thinking – A Review of Checkland's Systems Thinking. *Systems Research and Behavioral Science,* 27 (2), pp. 140-155.

Zlatanović, D. (2010). Strukturiranje upravljačkih problemskih situacija Metodologijom *soft* sistema, *Ekonomski horizonti*, 12 (2), pp. 95-112.

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