

ORGANIZATIONAL RESPONSES TO SUSTAINABLE DEVELOPMENT CHALLENGES – CONDITIONS & CONSEQUENCES

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Purpose: The aim of the paper is to discuss assumptions that stand behind the idea that, in order to analyze a way in which organizations are willing to respond to environmental challenges, it is necessary to consider how the diffusion of knowledge related to sustainable management practices can impact on decision making dependent on managers' cognitive frames. The analysis is focused on the sensemaking process initiated by a necessity to make a decision on whether to engage in a sustainability project involving steps to be made to protect natural environment. The attention is paid to its possible realization dependent on cognitive frames used by decision makers. This way of analysis allows for better understanding of factors which may hinder enterprises from implementing sustainability idea. In the paper current literature related to the topic is reviewed and next selected issues considered as critical for understanding the matter are described and discussed.

Design/methodology/approach: Theoretical analysis is conducted and the key assumptions of critical realism related to ontological and epistemological dimensions are implemented. The importance of abductive way of thinking is outlined.

Findings: In general, it is argued that managers who are more likely to accept paradoxical nature of challenges related to the implementation of sustainability tools should find it more useful to follow multidimensional paths through which they may reach stakeholders. It is also presented that in order to show how decisions as to implement the sustainability idea can be made, it is necessary to take into account consequences that are to arise from the fact that attitudes towards sustainability management are influenced by historical conditions. Because of the wide array of actors who may contribute to the successful implementation of the sustainability idea, it is predicted that different cognitive approaches should be used. The arguments that are provided appear to also prove that it is useful to consider deeply relations among sensemaking process and cognitive frames used by managers.

Originality/value: The paper includes an authorial analysis in which conclusions are inferred based on hitherto conducted research and formulated research propositions related to sensemaking process, cognitive aspects of making decisions as well as to issues of building legitimacy in the light of environmental challenges which modern enterprises need to deal with. The analysis can provide decision makers with some new insights as to why they make decisions as they used to, which next should allow them to change their habits.

Keywords: sensemaking, cognitive frame, sustainable development, decision making.

Category of the paper: conceptual.

1. Introduction

It is argued that "sensemaking" is especially important for managers who are faced with a change that entails severe modifications in a way their interactions with the world around them take place. When being interpreted, communicated and implemented change requires that managers actually "struggle for meaning" (Lüscher and Lewis, 2008, p. 221). The paper aims at considering the content of the sensemaking process in the hypothetical situation of making decision on how to face challenges of sustainable development and to undertake a sustainability project involving implementation of one of the many sustainability tools like e. g. sustainable supply chain management or sustainability network (Johnson, 2015, p. 278). To make the analysis more meaningful there is a differentiation introduced between decision makers who follow a business case frame and these who follow a paradoxical frame. The most important relations that are to be considered are outlined in the Figure 1.

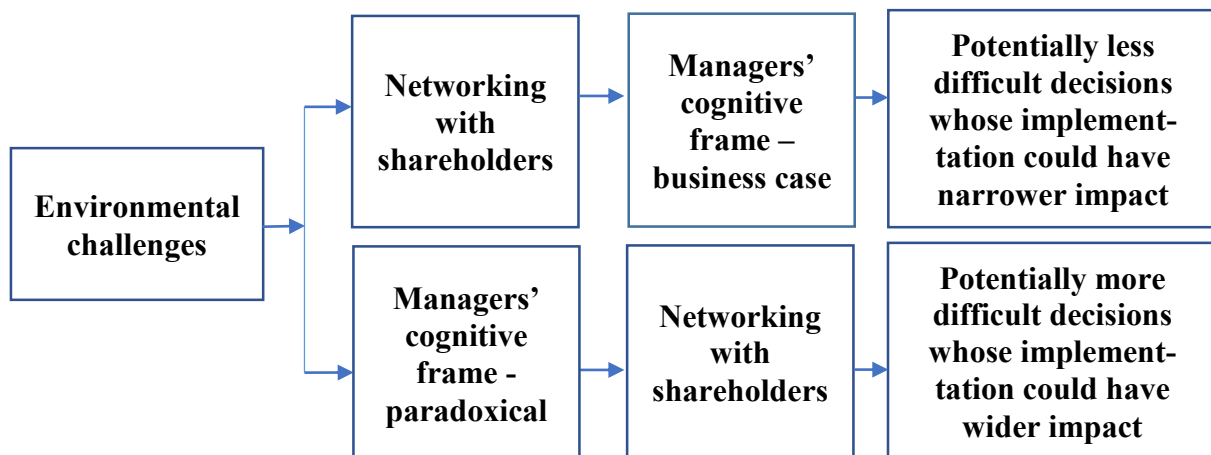


Figure 1. Conceptual framework. Source: Author's own elaboration based on Delbridge and Edwards (2013); Hahn et al. (2015); Hörisch, Johnson and Schaltegger (2015).

As we can see there is the assumption that a way in which managers are to respond to the environmental challenges is determined to some extent by their cognitive frame as well as is impacted by network structures within which they used to cooperate. There is also one distinction proposed which shows that managers with a paradoxical cognitive frame are believed to recognize what relations between structures and actions are whereas managers with a business case frame may tend to "read action from structure"¹ (Delbridge and Edwards, 2013, p. 933). What it means is that depending on the type of an adopted cognitive frame some managers are more prone to follow ways of thinking stemming from given conditions while others appear to be more likely to resist and to search for their own solutions. It is to be added that when conducting analysis based on the assumptions of critical realism the attention should be paid to Delbridge and Edwards' stance. They proposed that in order to show how historical conditions influence undertaken actions it is an idea to treat analytically structures and actions as separate. Otherwise the analysis could focus only the process of responding to external

institutional pressures that would be to occur in a very predictable way. Then it also becomes more visible how participants' reflexivity is to moderate actions that they perform. Taking into considerations many logics (they can be understood as ways in which goals are conceptualized – Hahn et al., 2015, p. 35) causes participants' reflexive process to not be fixed. It is claimed that an ability to be reflexive is to be determined by many factors like experiences from the past, social environment as well as to be impacted by individual features and views (Delbridge and Edwards, 2013, pp. 928-929). Critical realism argues that although social structures are believed to exist partially independent of human activity or human knowledge about them, they are also believed to be dependent on "people's conceptions of what they are doing in their activity" (Al-Amoudi and Willmott, 2011, p. 31; Bhaskar, 1998)². Consequently, when admitting this partial independent existence of structures, it is to take into account and to incorporate into the analysis the aspect of how meaningful concepts are dependent on given discursive order (Al-Amoudi and Willmott, 2011, p. 36)³. Because networks which are to be built by managers with a paradoxical cognitive frame are believed to be comprised of more differentiated entities they should allow managers to come closer to the full realization of sustainable development concept which is understood in this paper as inclusive, connected, equitable, prudent and secure human development (Gladwin, Kennelly, and Krause, 1995)⁴. It is worth reminding that Gladwin, Kennelly and Krause (1995) posed the question about stakeholder models, that was whether they should be extended in such a way to be temporally and spatially inclusive to a greater extent (Gladwin, Kennelly, and Krause, 1995, p. 898; Starik, 1995). The questions that are to be considered refer to networking with stakeholders as these networks can be considered as being channels through which both diffusion and dissemination of practices as well as knowledge related to them can occur. What is to be emphasized, the way in which it happens is also aided by a key element of legitimacy, that is the process of theorization. It allows for existing norms and practices to be abstracted into some generalized categories. The theorization results in that diffusion and dissemination of practices become taken-for-granted as time goes by (Suddaby, Bitektine, and Haack, 2017, pp. 460-461). Here, it appears to that there are two factors that should make researchers paying even more attention to how business firms try to implement sustainability idea. Firstly, it is argued that currently it is the task for civil society actors and private actors (including here business firms) to define standards of behavior in order for sustainable development to flourish (Scherer, Palazzo, and Seidl, 2013, p. 260; e.g. Mena, and Palazzo, 2012). Secondly, the level of engagement of these actors with sustainability idea is expected to grow because social sensitivity to unsustainable business practices is to pursue its growing (Scherer, Palazzo, and Seidl, 2013, p. 260). That is why organizational responses, their consequences and reasons that lead to the way in which organizations respond to the arising challenges should be taken into account.

2. Theoretical background

According to Weick sensemaking is related to putting an effort into the creation of order and understanding which should be coherent. This process is directed by a structure of assumptions, roles and boundaries which can be used until some kinds of shocks and surprises start showing that hitherto used structures should be abandoned (Lüscher, and Lewis, 2008, p. 222; Weick, 1995). This process, in general, is viewed as being comprised of three phases, that is scanning phase, interpretation phase and responding phase (Hahn et al., 2015, p. 24).

The action research on how managers face with changes in the company conducted by Lüscher and Lewis (2008) allowed these authors to go through the process which they understood as a process of sensemaking that occurred in a collaborative manner. There were few phases described. The first one was the mess and it was followed by the problem formulation and next by the facing dilemma. The last two stages were the paradox and the workable certainty. From the point of view of the analysis performed in this paper it should be emphasized that during each of these phases different kind of questions are considered as being helpful because they allow a group to move on in the process (Lüscher, and Lewis, 2008, pp. 221-227). At the beginning of this process it is important to allow managers to set the boundaries for exploration by selecting aspects of the issue being under consideration they should be interested in. Then by asking intricate questions referring to expectations, or initial goals, a logic which managers appear to follow at the time could surface. Next phase involves bounding what managers have already known in such a way that a reflection should be possible (Lüscher, and Lewis, 2008, p. 228; Ackoff, 1978). Having problems formulated individuals are actually saying that they are prepared to make necessary steps in order to find a solution. Then so called linear questions are expected to appear. They are connected to managers' concerns or factors that have an impact on the issue to be resolved. This is the time when realizing all oversimplifications in how the issue is stated, managers come to conclusions that they are not able to simply make use of problem solving logic as well as they see that still some key elements (including other perspectives and connections) are not taken into account (Lüscher, and Lewis, 2008, p. 229). Next during dilemma phase managers are expected to ask so called circular questions (Lüscher, and Lewis, 2008, p. 229; Tomm, 1987). As a result, they should get to know both opinions and feelings of their subordinates or executives. Here managers are to overcome a "sense of paralysis" (Lüscher, and Lewis, 2008, p. 229; Smith, and Berg, 1987), which may appear when they have to deal with the solutions that all have some advantages and disadvantages and actually there is a lack of a clear reason why one solution may be treated as being better in comparison to the other one (Lüscher, and Lewis, 2008, p. 229). Next phase is the one in which managers may realize that the tensions which they are considering actually have paradoxical nature. In order to understand how a paradox can be perceived it is useful to refer to Smith and Lewis's (2011) view on the issue.

They distinguish three kinds of tensions, that is a paradox, a dilemma and dialectic tensions⁵. Paradox is defined by them as "contradictory yet interrelated elements that exist simultaneously and persist over time" (Smith, and Lewis, 2011, p. 386). When considering elements linked to each other by paradoxical relations, one can see that formal logic encourages "either/or" thinking. However, from the point of view of the whole system it is possible to notice synergies among these elements as they are just interrelated (Smith, and Lewis, 2011, p. 386; Cameron, and Quinn, 1988). It is important to notice that distinctions among these three terms are rather fluent ones, because it is possible that they overlap. It happens e.g. when because of interrelatedness of elements contradictions among them are to appear again and again so that dilemma can not be resolved once and for all. In case of synthesis, because it favors one element over the other in a gradual way, it is the case that main characteristics of contradictory elements are to be retained when new synthesis emerge. Due to the fact that here differences among elements tend to be neglected, the integration that happens is to last only temporary (Smith, and Lewis, 2011, pp. 386-387). Paradoxical nature implies that opposing solutions are interwoven, so that any choice can not resolve the tension (Lüscher, and Lewis, 2008, p. 229; Lewis, 2000). Reflexive questions should then help managers examine implications which are not obvious at once (Lüscher, and Lewis, 2008, p. 229; Tomm, 1987). These questions can refer to the results of undertaken approaches as well as to ways in which responsibilities are defined, which is why double-loop learning can be considered as a consequence of posing them (Lüscher, and Lewis, 2008, p. 229; Argyris, 1993). This is also the moment in which "either/or" approach is replaced by "both/and" approach (Lüscher, and Lewis, 2008, p. 229)⁶. The final aim of posed next interventive questions and deeper explorations is to reach so called workable certainty. Being aware that the process of sensemaking is constant, managers should be able to act in a way that is to correspond to the situation in which they are faced with tensions on a regular basis. It is to be added that during the last phase questions as to why one thinks that proposed solutions are actually to work well can appear (Lüscher, and Lewis, 2008, p. 230).

Describing managers' behavior during the responding phase of the sensemaking process Hahn et al. (2015, p. 31) argue that managers are expected to act in a way that depends on their stance. In general, it is understood as a kind of attitude toward a problem managers are faced with and it is based on their rationalizations (Hahn et al., 2015, p. 31). What is important from the point of view of the analysis in this paper is that when analyzing sustainability issues it is helpful to perceive what one does or what one does not do in the light of stances which people may have. For example, a concentration on activities and solutions is believed to be specific for pragmatic stance. Those who take it are to avoid to debate current situation. But others are more willing to approach the topic of sustainability development in a more philosophical way. Then there are possible different views on e.g. whether the natural environment is only a resource needed to achieve higher life quality or whether it is reasonable to consider human beings as having privileged position among other species (Byrch et al., 2009, p. 2).

It is worth paying attention to the fact that managers' cognitive frames have an impact on what these stances are to be like. Cognitive frames are expected to lead to responses by shaping meanings and filtering bits of information which managers are to absorb (Hahn et al., 2015, p. 18; Porac, and Thomas, 2002; Weick, 1995). In general, Hahn et al. (2015, p. 31) propose to distinguish two kinds of frames – a business case frame and a paradoxical frame. Business case frames that are expected to result in a pragmatic stance involve considering primarily economic objectives, exploiting opportunities as well as subordinating environmental and social issues to economic ones. What is more, managers with a business case frame may consider sustainability issues actually as totally positive or totally negative, so that they think about them in a univalent way. On the one hand, they may focus on narrow ranges of possible responses. This is because the complexity of information is reduced (Hahn et al., 2015, p. 23; e.g. Levinthal, and Rerup, 2006). On the other hand, due to the fact that they actually attempt to exploit existing routines the responses which they are to propose should be quite workable (Hahn et al., 2015, p. 19). Following alignment logic, these managers are believed to gather detailed information, which should allow for understanding cause-and-effect relationships (Hahn et al., 2015, p. 28; Sharma et al., 1999). Paradoxical frames that are expected to result in a prudence stance involve taking into account ambivalent interpretations of sustainability issues. This is because economic as well as social and environmental issues are considered as being equally important. These managers are to check more information sources due to this high level of diversity (Hahn et al., 2015, p. 25; Beyer et al., 1997). As a result, it can be argued that responses that are analyzed by managers directed by paradoxical frames allow for more comprehensive answers. Nonetheless, due to the fact that the level of considered risk when responding in this way is greater these managers respond more carefully and in a rather slow manner (Hahn et al., 2015, p. 19). Having only a moderate sense of control over sustainability issues, these managers at the same time do not have a need to see "immediate financial implications" (Hahn et al., 2015, p. 26; Byrch et al., 2007). It appears also reasonable to assume that they can be aware that evaluators of their activities, would they be individuals or collectives, are diverse, so that their judgments and motives are to be diverse as well even if they are under the impact of strong institutional pressures (Suddaby, Bitektine, and Haack, 2017, p. 466; Bitektine, and Haack, 2015).

It can be claimed that efforts put into the environment protection and taking care of the natural environment and its inhabitants may often require that one needs to be focused on wider range of issues requiring integrated transdisciplinary knowledge for sustainable human – nature balance (Shrivastava, Ivanaj, and Persson, 2013, pp. 238-239). In the light of hitherto considerations it appears to be reasonable to argue that managers with a paradoxical frame find it more useful to treat problems from transdisciplinary point of view. The challenge is that it demands that people are ready to overcome their fear of unknown in order to achieve more than it is possible by making use of the classical analytical approach (Shrivastava, Ivanaj, and Persson, 2013, p. 239). However, it is not to be said that cognitive frames of a given type are

generally more useful than other ones (Hahn et al., 2015, p. 35). As they are different their simultaneous use appears to be required to meet demands that stem from tensions resulting from paradoxical specificity of many challenges that modern organizations have to deal with when following requirements of sustainable development.

3. Methods and results

In the paper the author pays primary attention to the consequences arising from the process of responding to sustainability challenges. The process is believed to be influenced by cognitive frames that are mobilized by managers when going through sensemaking process. As the assumption is that there two kinds of these frames, that is business case one and paradoxical one, it appears that the analysis conducted on how individual decision makers can impact network cooperation allows the author to outline the most important, however not necessary always visible at once, consequences of the fact that enterprises currently are operating in the global environment that is not only fragmented or dynamic, but there are many sustainability demands that often can be contradictory (Scherer, Palazzo, and Seidl, 2013, p. 261). Hence, in order to achieve the main goal of this paper the analysis is conducted whose main assumptions are included in table 1. Based on selected foreign scientific papers the process of sensemaking is investigated in a hypothetical situation of making decision on whether to take part in network project aimed at dealing with challenges of sustainable development. Based on the literature focused mainly on legitimacy management there are also considered answers which, based on described assumptions, could potentially be proposed by managers with different cognitive frames. It should be explained that predicted ways in which different managers are expected to approach the problem correspond to some extent to strategies and approaches proposed by literature (e.g. Scherer, Palazzo, and Seidl (2013) – strategies of adaptation, manipulation as well as moral reasoning together with both approaches to cope with possibilities to implement different strategies – one best way, contingency, paradox – and ways of creation of suitable conditions – structural solutions, contextual solutions as well as solutions based on reflective capacities; Suchman (1995) – strategies of building pragmatic legitimacy, moral legitimacy as well as cognitive legitimacy; Suddaby, Bitektine and Haack (2017) – strategies of conforming, decoupling as well as performing/learning in case of legitimacy considered as property; Tost (2011) – approaches to the process of legitimation analyzed from the point of view of institutional theory and social psychology). However, it is not argued that proposed reactions follow strictly these described strategies. They are actually to combine some chosen elements from them all.

Table 1.*Impact of managerial cognitive frames on sensemaking – proposed relations*

Cognitive frame	Phase of sensemaking process during organizational change	Proposed main issues to be considered	Possible questions (related to networking with stakeholders)	Possible approaches to the problem
Business case	Mess	Connectivity	How can network relations be maintained to prevent stakeholders from leaving the network and at the same time to enable flow of a legitimacy-building information throughout the network?	Pragmatic approach with the attention paid to beneficial exchanges, however, there appear to be a probability that an approach similar to decoupling may emerge.
Paradoxical			How can an adequate network structure comprised of enterprises and organizations from different fields be built? What kind of motivations can participants have?	An approach similar to moral reasoning with the attention being paid to encouraging participation of different entities and to promoting awareness as to their influence on final results, a risk can emerge that too many companies would take part in it.
Business case	Problem formulation	Equity	Which kind of requirements regarding costs to be incurred can prevail when realizing the project?	Search for the best solutions taking into account criteria related to the efficiency of the company and to the possible extent related to the efficiency of the whole network
Paradoxical			Whether can the pressure to exchange knowledge when operating within diversified network be diminished due to changes in foundational rules that members are to abide by when exchanging resources?	A challenge it would be to set standards of cooperation in order to create suitable conditions to improve activities and at the same time to not induce too much pressure that could force partners to exchange knowledge even if they see it as inequitable.
Business case	Dilemma consideration	Prudence	Whether members of the network can be afraid of suffering financial losses as a result of realizing common projects due to the lack of conditions that could allow all members to improve their efficiency?	Some engagement in preparing ideas on how it could be resolved, tendencies to justify why the things are the way they are
Paradoxical			How can trust be created when there are a lot of dimensions of cooperation among members from different fields that are difficult for others to make them realize?	Both following the idea of “either/or” methods of making a choice and taking into account that being taken for granted can occur only when nobody tells about it, could lead to that the existence of some dimensions of cooperation is not to be articulated

Cont. table 1.

Business case	Paradox approached	Security	Which are the consequences of multilateral anxieties concerned with a lack of financial advantages?	If external conditions are to be suitable then it is assumed to be possible that stance “both/and” instead of “either/or” be taken; when searching for advantages to be derived from the cooperation, non-financial opportunities could be included
Paradoxical			Which are the consequences of multilateral anxieties resulting from the fear of losing different kind of resources?	The first possibility is related to approaching the paradox which involves looking for ways to operate effectively in different fields, and the second approach is related to a risk of the emergence of manipulation as a problem can be seen as being impossible to be overcome
Business case	Workable certainty	Inclusiveness	Can proposed steps to be made really be considered as the solution to the problem if there are still unresolved contradictions?	Claims indicating on the necessity to follow proposed solutions because of legal and economic issues (e. g. the avoidance of having to pay financial penalties due to the fact of not abiding by the environmental law) would appear probable; the possibilities for the creation of the external environment are rather not visible, entities may be assessed as legitimated by others if they promote their material interest
Paradoxical				Considered consequences of proposed solutions (in terms of their short and long time possible impact as well as from the point of view of spatial impacts) should focus on possibilities of gathering resources which are to be used when implementing projects in the future in other networks; entities may be assessed as legitimated to the extent in which they communicate that, as a result of their membership in the network, members can gain respect and status; hence, they want to create the external environment actively

Source: Author's own elaboration based on Gladwin, Kennelly and Krause (2015), Scherer, Palazzo and Seidl (2013); Suchman (1995); Suddaby, Bitektine and Haack (2017) and Tost (2011).

Further analysis is not focused on drawing conclusions on whether decision makers should decide on one or more of these strategies that next could be implemented. It is thought to show what kind of issues decision makers are likely to perceive and in which direction their perception is supposed to be shaped by cognitive frames that impact on how information related to sustainability issues is processed. It should also be explained that the assumption is here that being focused on sustainability projects managers need also plunge into considerations of more general aspects (in table 1 these are proposed main issues to be considered during each phase of the sensemaking process that refer to dimensions mentioned by Gladwin, Kennelly and Krause, 2015) and their point of view on them is to influence how they approach issues crucial to cooperation with others.

4. Discussion

In table 1 first main issue to be considered is underlied by the assumption that managers with a paradoxical cognitive frame may appear to be more open towards claims that are constituents of the dimension of connectivity. Hence, their assumed attitude towards network cooperation is to involve searching for partners from different fields. They should understand that only if global problems are to be perceived as connectivity dimension assumes, that is as systemically interconnected and interdependent, can members of the network face with economic, social and environmental challenges (Gladwin, Kennelly, and Krause, 1995, p. 879). That is why they are to be more willing to undertake cooperation with actors representing social field, environmental field as well as economic field. What is also important is to notice that it can not be sufficient to focus only on environmental issues when implementing sustainability idea. When it happens like this Gladwin, Kennelly and Krause (2015, p. 879) argue it is a threat that only trivial results be produce. Taking it all into account it can be seen why these managers are expected to focus firstly on ensuring appropriate network structure. An approach to the problem which they are likely to implement may in some way be similar to moral reasoning discussed by Scherer, Palazzo and Seidl (2013). It means that they would actively engage in discussions with network participants to make it possible that they become aware of their roles and next they can fulfill their tasks. In this way managers with a paradoxical frame are expected to be more knowledgeable about sources of their motivation. The question to investigate is how this knowledge can contribute to shaping appropriate discursive practices. In case of managers with a business case frame it appears to be reasonable to assume that following their clear assessments of positiveness and negativity (e.g. related to values and facts – Gladwin, Kennelly, and Krause, 2015, p. 885; Wilber, 1995) to some extent they may omit the complex interlinkages among the issues to be resolved when implementing sustainability project. That is why it is postulated that the question to be posed by them would relate to maintaining effective network structure with regard to the ease with which knowledge can flow. It may appear to be similar to claims represented by technocentric paradigm which sees the value of the world as only monetarily quantifiable (Gladwin, Kennelly, and Krause, 2015, p. 882). It means that it can be expected that decision makers are to follow partially what Suchman (1995) described as pragmatic legitimacy as well as what Suddaby et al. (2017) called decoupling. Being focused on ensuring economic advantages could lead to that a risk emerges that insufficient activities within other fields would be only commented in a exaggerated way. This is because it may be noticed that the problems related to dynamic complexity and interrelationships among different elements (including ecosystem degradation) demands systemic thinking about individuals and units responsible for these connections. Without considerations of these issues it is simpler to focus mainly on economic aspects

(Gladwin, Kennelly, and Krause, 2015, p. 895). But the problem may arise when external pressures become intensified in other fields.⁷

At the general level issues related to the dimension of equity are concerning the distribution of resources (Gladwin, Kennelly, and Krause, 1995, p. 879). It has been noted that ideas related to sustainability may turn out to be difficult to being operationalized like e. g. levels of waste emissions on the one hand and natural assimilative capacity on the other hand (Gladwin, Kennelly, and Krause, 1995, p. 891). The view that is also criticized by Gladwin, Kennelly and Krause (1995) is that sustainability tools (or tools of "greening" as it is directly stated by them) like e. g. life-cycle analysis are focused on instrumental or process objectives too much. At the same time they emphasize that managers need to be informed about how far away there still are from achieving ultimate goals (Gladwin, Kennelly, and Krause, 1995, pp. 899-900). Due to the fact that levels of the use of different kind of materials and connected to them emissions may be difficult to specify it may be that managers with a business case frame find it easier to adopt measures simply determined by financial considerations and in this way a call to an action in their problem formulation may be well visible. Having had network created managers with a business case frame may also find it less complicated to implement the project as the data related to how to share profits resulting from the projects are relatively easy to transfer. As a result, the high level of engagement of stakeholders appears to be more probable as the chances to derive advantages from the network cooperation with regard to ways of rendering services, selling goods would be more visible. It may be noticed that showing legitimacy with regard to technical dominance is specific for pragmatic strategy of legitimacy building as interpreted by Suddaby et al. (2017). However, the threat that partners would have difficulties to meet demands as to cost-effective requirements can be exposed. Especially, it is to happen when discursive practices would turn out to cause implicitly participants to match ecological solutions with the only cost effective ones. They could focus on it because as technocentric paradigms claim each time externalities arise from market failures they are not to be internalized until it is cost effective (Gladwin, Kennelly, and Krause, 1995, p. 884). For managers with a paradoxical frame it may turn out to be more difficult to specify the problem, especially when they would try to communicate with different groups in their whole network using the language adequate to the group. Because of these difficulties and uncertainties as to how should suitable behavior be like, then a risk may emerge that hitherto recognized patterns of behavior (related e.g. to categories like "green identity" immersed in the discursive practices approaching somehow radical view of ecocentrism) are likely to dominate. This way of behavior could be to some extent (especially with regard to social or symbolic dimension) similar to the one described by Suddaby as conforming (2017). If these managers were closer to the stand represented by technocentrism they would not pay sufficient attention to this aspect at the end. If these managers were closer to the stand represented by ecocentrism then pragmatic action could turn out to be even more difficult, because here worldview of ecocentrism means that all legitimate interests should be taken into account (Gladwin,

Kennelly, and Krause, 2015, p. 889). Recognizing as the sustaincentrism sees it that all human values are dependent on a healthy context comprised of ecological, social and economic dimension (Gladwin, Kennelly, and Krause, 1995, p. 895) is to outline the interpretive doubts even more (Gladwin, Kennelly, and Krause, 1995, p. 894). Awareness as to the necessity of introducing policy instruments and economics incentives is to create special requirements directed towards more active participation of local authorities as well as towards social and political institutions (Gladwin, Kennelly, and Krause, 1995, p. 893). The problem of embracing possible goals and interests of all engaged entities would be strengthened.

The prudence dimension of sustainable development requires that due to the constrains like complex dynamics in ecological and social systems (Gladwin, Kennelly, and Krause, 1995, p. 879; Costanza et al., 1993) people maintain cautious attitude as well as they should be prepared for constant surprise (Gladwin, Kennelly, and Krause, 1995, p. 879; Ludwig, Hilbron, and Walters, 1993). When facing with dilemma managers with a paradoxical frame are supposed to consider firstly how to create trust so much needed when there are many different entities operating as network members. It has been proved (e.g. Capaldo, 2007) that there are some solutions which when having been implemented within the network should allow entities to work together until they finish due to the end of the project. But what is more, these managers may still be aware that besides reasons like many entities belonging to different groups there are other reasons why cooperation may cause partners to be anxious about it. These reasons could turn out to be impossible to become visible. Even if these managers were to start talking about them, it could turn out to be unreasonable because for their project to be regarded as taken-for-granted it would be better not to engage too much in justifying it (Suchman, 1995). Here the task of finding one solution to solve the problem once and for all is turn out to be impossible and it could lead managers to the final feeling of an absurdity of the whole situation related to organizational change (Hahn et. al., 2015). If these managers were to follow sustaincentrism assumptions, they should have a belief that both knowledge possessed by human beings as well as institutions created by them are all able to reveal these limits and thresholds that they are looking for (Gladwin, Kennelly, and Krause, 1995, p. 895). Taking into account the context of sustainability projects it could happen that they would rest assure that in the long-term they are not to break any rules threatening the cooperation. In case of managers with a business case frame the dilemma involves noticing that network members may be afraid of financial losses and it may be difficult to ensure every member that in short time space (again it is the assumption which is connected to technocentric worldview – Gladwin, Kennelly, and Krause, 1995, p. 883) conditions under which members cooperate in a network actually could be considered as sufficient to operate efficiently. Until project is to be profitable these managers are assumed not to ignore the risk that the project may turn out to be a failure, however, irreversible changes as to the list of the members of a project are not to be avoided. It would simply be impossible that every participant could derive enough advantages from the cooperation.

The security dimension of sustainable development in general terms require that decision makers take action to ensure that people could live in a safe and healthy way having lives of a good quality. Needless to say, there are many demands which have to be met in order for it to be fulfilled, e. g. reciprocity, transparency or accountability (Gladwin, Kennelly, and Krause, 1995, p. 880; Veiderman, 1994) as well as taking care of such processes as self-organization (Gladwin, Kennelly, and Krause, 1995, p. 880; Norton, 1991). In the phase when paradox should be approached it is to be noticed that managers with a business case frame who are focused on economic aspects could become irritated that tensions, resulting from the uncertainty determined by the risk of possible financial failure, can not be solved once and for all. Even if given solution would be implemented with success (financial primarily) it might happen that as time goes by this solution would turn out to be obsolete and would cause members of the network to incur losses. In spite of this risk it would be unreasonable to resign from assumed project. This is because as a result of its realization it is possible at least to build suitable competences in order to be able to implement technologies of next generations. As these managers are assumed to see the reality as positive or negative only, this phase can be actually never approached by them. It is more possible that they would consider the issue from the point of view of separated time intervals (similarly to the so called structural separation that is an approach to the matching different strategies described by Scherer, Palazzo, and Seidl, 2013). That is why steps made by them should look like being reasonable and rational rather in short-time interval. In case of managers with a paradoxical frame who are not to avoid considering analyzed circumstances as complex two scenarios appear to be possible. Firstly, taking into account three fields (that is economic, social and environmental) in which results achieved may stem from following seemingly opposed paths, it is reasonable to argue that these managers would understand the necessity to balance undertaken actions. Consequently, they may be more willing to take into consideration that environmental issues may result in an inflow of new inhabitants possessing high qualifications, which may allow in long time frame to achieve additional goals in two other fields. However, it may require that not only does each individual make a decision on what steps could contribute to sustainability, but also different levels of management are willing to consider issues even if they should be solved by managers at lower levels. Hence, reflexive capacities as described by Scherer, Palazzo, and Seidl (2013) would be required. In long-time horizon these managers are expected to build enterprise that thanks to improving its competences should achieve some level of excellence. Otherwise when being more aware of the structures that are built in network created due to the project realization these managers may start to manipulate (e.g. as *tertius gaudens broker* – Obstfeld, 2005). It could especially occur when it is quite visible for members of the network that it is not possible to accept the level of the complexity of encountered problems. Then ways in which some pieces of information are transferred when being modified could contribute to lowering tensions. Eventually it could turn out that in the long term frame it would

be more profitable for such organization to separate and connect members of different networks depending on the specificities of the task.

In case of the phase of the workable certainty the question which both managers with a business case frame as well as managers with a paradoxical frame are expected to pose is actually the same and relates to whether given solution actually works. The dimension of the general view on sustainable development to which attitude stood by managers would be of greater importance is inclusiveness. It relates to that sustainability should include both social and ecological efficiency as well as it emphasizes that taking into account human dimension of sustainability means that it is necessary to recognize "driving forces" of "anthropogenic global environmental change" like technological changes or political and economic institutions (Gladwin, Kennelly, and Krause, 1995, p. 878; Stern, Young, and Druckman, 1992). When trying to consider consequences of possible managers' views related to this dimension for sustainability project, the issue to be discussed is which kind of explanations may be taken into account to pursue the engagement in it. Even if some members of the network would be disadvantaged in some way or be forced to leave the network, the whole project from the point of view of managers with business case frame may appear to fulfill its role as e. g. it allows other members to avoid suffering losses or to derive benefits. Each time these managers can actually justify solutions in relation to conditions under which they are implemented. If the external environment changes, then it is not the problem on the part of those who undertake activities, only the one related to the external environment. Due to the fact of being more sensitive to the issue of network structure managers with a paradoxical frame are likely to pay attention to that this kind of failure is also possible as a result of the inappropriate network structure and the rules of behavior that result from it. For example, it may happen when some important entities are unrepresented or overrepresented. That is why in this case it is more probable that managers would focus on the issue of inviting other entities (or encouraging them to leave on the contrary) as they are expected to how they can shape correct environment in order to possess resource base which is to be suitable regarding current conditions.

5. Conclusions

In this paper it has been proved that when analyzing how organizations can respond to sustainable development challenges it is necessary to consider managerial cognitive frames. This is because they are to shape channels through which knowledge related to sustainable management practices flows as well as its content. Adapting proposition presented by Gladwin, Kennelly, and Krause (1995) it has been assumed that main dimensions through which individuals are to think about sustainable development cover connectivity, equity, prudence, security as well as inclusiveness. The topic is to be considered as important from the point of

view of management theory because as Gladwin, Kennelly and Krause (1995) argue by disassociating organizations and biosphere as well as human communities from each other, management theories may encourage even implicitly to behave in a way that finally can lead to the destruction of natural and social systems (Gladwin, Kennelly, and Krause, 1995, p. 896). Shrivastava, Ivanaj and Persson make a claim in favor of innovations to be introduced in products, services as well as in environment friendly production and logistics systems or human resources management and business models that should be focused on sustainability and possibilities of value creation together with stakeholders (Shrivastava, Ivanaj, and Persson, 2013, p. 232; e.g. Boons, and Lüdeke-Freund, 2012). In general, sustainability causes enterprises to be obligated to formulate and next to achieve simultaneously goals that cover social, economic and environmental issues (Hahn et al., 2015, p. 20; e.g. Gao, and Bansal, 2013). In the literature it is argued that worldviews could be a factor that influences how people can assess these dimensions (Gladwin, Kennelly, and Krause, 1995). Assuming that worldviews can have an impact on how managers are to make decisions related to their engagement in cooperation with other entities to realize sustainable projects, in the paper it is proposed to take into account managerial frames (Hahn et al., 2015) as well. These frames are factors that are believed to modify ways in which managers think actually about both sustainability development in general and implementation of their projects. As it has been argued in the paper managers with a business case frame are expected to be both limited in scope due to favoring incremental adaptations and swift due to economic pressure (Hahn et al., 2015, p. 32; Slawinski, and Bansal, 2012). Having to assess and to integrate a greater diversity of aspects that may turn out to be competing with each other, managers with a paradoxical frame need to spend more time on making decisions on in their opinion unique issues (Hahn et al., 2015, p. 32; Slawinski, and Bansal, 2012). Described differences when being match to challenges of sustainable development appear to have a great impact on how enterprises may cooperate in networks and as a consequence on final results. The task for managers is actually to make use of different experiences. The issue which is worth emphasizing is that the attention paid to possible relations among cognitive frames and ways in which individuals may come to realize how social structures within which they operate can impact their decision. That is the direction of analysis stemming from the assumption of critical realism related to epistemological relativism and the fact that our knowledge is to be limited by historical conditions. In order to take it into account as well as to not being indifferent toward the issue of human reflexive capacity, it is advisable to maintain analytical separation between structures and actions. In the paper it has been assumed that paradoxical cognitive frames can be a factor that may to some extent contribute to this kind of ability to perceive the world in this way. Again, although considerations of theoretical implications of presented ideas appear to be promising research avenue for the future, the above-mentioned propositions need to be further investigated empirically. Here it could be difficult to claim whether e. g. in case of being focused only on economics aspects at the same time an individual could have views that are to be in favor of some kind of

superiority of human to nature that is considered as specific in case of technocentrism worldview (Gladwin, Kennelly, and Krause, 1995, p. 882). Similarly, in case of managers with a paradoxical frame it is to be checked whether they actually would like to agree with the statement according to which there is an inextricable link between human activities and natural systems (Gladwin, Kennelly and Krause, 2015, p. 890). The issue could also be how we should interpret some ideas related to these worldviews (as e. g. trickle-down benefits) in the context of network cooperation (Gladwin, Kennelly and Krause, 1995, p. 884). The limitations of the above-mentioned analysis result from the fact that the considerations are connected to the hypothetical situation so that the postulates presented here are to be treated primarily as proposals to be investigated. Conducting theoretical analysis of the problem may appear to be simplified due to the lack of empirical data, however, the fact that two types of frames described in the paper are to some extent contradictory to each other help the author to outline possible differences based on results of researches discussed in literature. Finally it is to notice that the theoretical analysis of how different cognitive frames can impact on a process of making decisions on sustainability challenges could make it more visible why some phenomenon may occur when partners are to cooperate in networks also due to using the description of sensemaking process. Here it is important to remember that proposed phases of this process follow research conducted within different context of decision making (Lüscher, and Lewis, 2008). At the same time both research conducted by Lüscher, and Lewis (2008) and hypothetical decision on sustainable project discussed in this paper entail organizational changes that is why the decision to refer to this description has been made. It enabled the author to show how managers with different cognitive frames may come to their conclusions by posing different questions that reflect their ways of thinking, which is here believed to be one of decisive factors about future process of implementation proposed solutions.

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Footnotes

- ¹ Social structures can be understood as configurations of rules (normative and interpretive rules) and resources (allocation and authority resources) that are used based on foundational organizational rules to create and re-create different types of social relations both in time and in space. Social relations allow for shaping institutions and dependent on which kind of rules and resources are of primary importance it is possible to say about different institutional orders, e. g. political or economic (Turner, 2008, p. 576-577).
- ² Put it differently, it may be said that given thing (or a state or an idea) is to exist before it is discovered. However, when others are to accumulate knowledge about it as a result of this discovery, it is believed that this knowledge is to contribute to a change of this given thing (or a state or an idea). What is important, this change is believed to occur not only because of this knowledge but also due to many other factors like e. g. social environment (Al-Amoudi, and Willmott, 2011, p. 32).
- ³ It means that categories by which people describe the world are to obtain their meaningfulness primarily because they are used within given set of discursive practices (like e. g. a discourse of environmental debate). They cause that these categories are grasped (like e. g. “environmental activist” or “grey consumer”). Then the task is to investigate these practices which allow categories to be hegemonic (Al-Amoudi, and Willmott, 2011, p. 36). It can be assumed that such categories refer to given aspects of existing state of affairs, however, it should not be assumed that these categories are more useful than others (e. g. “environmentally aware person” or “customer increasingly interested in green issues”) without considering the contexts in which they are used (Al-Amoudi, and Willmott, 2011, p. 31; Bhaskar, 1986).
- ⁴ However controversial it may appear to be, Gladwin, Kennelly and Krause (2015) chose these criteria to compare with each other three worldviews (these are ecocentrism, technocentrism as well as sustaincentrism) at the same time arguing that it is not useful to refer to such validity claims as truthfulness, rightness or aesthetic to evaluate alternate worldviews, because these worldviews should not be assessed as being right or wrong (Gladwin, Kennelly, and Krause, 2015, p. 881). As they aimed at “coherent persuasiveness” (Gladwin, Kennelly, and Krause, 2015, p. 881) and due to the fact that there is no neutral algorithm which would be to prove the correctness of an alternative paradigm (in case of checking which of the worldviews entail paradigmatic assumptions that are more likely to allow for sustainable development when being put into practice) (Gladwin, Kennelly, and Krause, 2015, p. 882; Kuhn, 1970) their stance has been accepted by scientific community.
- ⁵ In case of dilemma, some advantages and disadvantages of each of the alternatives taken into consideration can be emphasized (Smith, and Lewis, 2011, p. 386; McGrath, 1982). In order to resolve the dilemma it is simply needed to choose one option whose advantages outweigh, so that the issue is approached from a “either/or” perspective (Smith, and Lewis, 2011, p. 387; Cameron, and Quinn, 1988). In case of dialectic tension, which is when ongoing process of resolving tensions occurs, the integration is a tool to resolve them. (Smith, and Lewis, 2011, p. 386-387).
- ⁶ To have these problems explained more accurately, it can be noticed that needs for exploration and exploitation (March, 1991) when considered as dilemma cause managers to separate exploration and exploitation on temporal or spatial basis (Smith, and Lewis, 2011, p. 388). Considering the tension between exploration and exploitation as dialectic entails identifying emerging synergies that are to take place when new ideas, skills, and strategies are integrated along with the old ones (Smith, and Lewis, 2011, p. 388; Bledow et al., 2009; Farjoun, 2010). Taking a view on organizations as ambidextrous ones mean that paradox approach is adopted. Here it is emphasized that in order to support organizational learning both exploitation and exploration need to take place simultaneously as they reinforce one another (Smith, and Lewis, 2011, p. 388; e.g. O'Reilly, and Tushman; He and Wong, 2004).
- ⁷ It is to be added that the way in which cognitive frames influence decision making process can be moderated by different factors. However, in this paper these issues are not analyzed in detail. Here it can only be noticed that the organizational identity is one of these factors. It can be considered as a set of attributes that make one organization distinguishable from the other one (Greenwood et al., 2011, p. 347; e.g. King et al., 2010). In general, the stronger the identity is, the more probable it can be that the organization will be ignoring external requirements (Greenwood et al., 2011, p. 348; Gioia and Thomas, 1996; Miliken, 1990).