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Value Creation and Sustainable Development

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Introduction

Sustainability is a well-used term, appearing almost daily in the media and increasingly in everyday conversation, often as something to strive for. Moving toward a more sustainable way of living will inevitably require some radical changes in attitudes, values, and behavior (Hahn et al. 2014; Gulliksson and Holmgren 2015). And perhaps the best way to strive for sustainability is through organizational change initiative (Appelbaum et al. 2016a). There have been discussions about the definition of sustainable development (Dobson 2008; Rambaud and Richard 2015; Appelbaum et al. 2016a), about how to interpret the concept in organizations and companies (Hahn et al. 2014; Appelbaum et al. 2016b). Also, research about how companies can create measures in order to get facts for decisions has been conducted.

Corporate sustainability has been discussed as an organizational change, and changes can be performed through learning (Appelbaum et al. 2016b). What is clear by now is that to break deeply entrenched, unsustainable patterns (assumptions, behaviors, and values) require a new kind of thinking inspired and informed by powerful learning processes that simultaneously lead to individual and collaborative action and transformation. David Selby (1999) even speaks of a need for "quantum learning," which is a powerful and engaging teaching and learning methodology that integrates best educational practices into a unified whole. This synergistic approach to the learning process covers both theory and practice. It has been proven to increase academic achievement and improve students' attitudes toward the learning process (Selby 1999). According to the United Nations Educational, Scientific and Cultural Organization (UNESCO 2013), the mission of higher education is to educate, train, and undertake of society as whole. However, there exists no single sustainability formula for higher education that fits all countries because of the crucial processes that take place in varying historical, social, economic, political, and cultural contexts (Meek et al. 2009). Understanding the concept of education for sustainability (EDS) has been one of the major challenges for educators during the last decade due to the debate over the different meanings associated with sustainable development (Jickling 2006).

University students, among others, are in great need of understanding and getting tools to be able to operate in order to jointly produce a mutually valued outcome for sustainability issues. This chapter makes a contribution to the knowledge

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of processes of learning by creation of values toward sustainable development. There are several processes involved in creation of values. Processes of learning, meaning making, and sensemaking are some of them. In this chapter, a process-oriented perspective is used.

Value creation is, mostly and usually, seen and described as a process between customers and suppliers in the research literature. In this chapter, though, value creation is assumed to be able to describe this process in any organizational context. It means that groups are defining the concept of sustainability by discussing and starting work toward more sustainable solutions. It is regarded from a learning perspective that co-creation involves a step-by-step process of learning and sharing knowledge and experience, leading to a reciprocated learning process (Payne et al. 2008). Processes of learning, sensemaking, and co-creation processes are closely related to one another (Hernes and Maitlis 2013).

As sustainability means so many things in general, there is a need of defining the concept in any organizational context. We all need both theoretical knowledge but also tools in order to realize theories in practice while taking the step into more sustainable future. These processes also have managerial implications. There are huge problems we need to solve on our journey for and toward sustainable development. This presented theoretical framework is an attempt of providing more holistic approach to problem-solving. The interest of this chapter is to discuss how operationalization of problem-solving could take place at organizational level. There is probably no need to mention that there are several paths as processes toward sustainable development, the framework presented here, can be considered as one of them. We all need to create platforms for interaction, incentivize collaboration, sustain communication, and essentially convert the efforts into performance. There is a requirement of new learning and teaching methods (Hartley 2003). There are several processes interacting with each other: both of individual and collective art. In the following part, learning processes, processes of value creation, and meaning making as well as sensemaking processes, a theoretical framework, are presented as theories and tools in understanding and making effort on demands of more sustainable future development.

Learning

Learning, as a concept, has been looked at from various disciplines and perspectives throughout history, including cognitive psychology, social psychology, education studies, management studies, innovation studies, policy science studies, development studies, and complex systems thinking. As a result, the concept of learning is used to cover "a wide society of ideas" (Minsky 1988, p. 120). In this chapter there is no attempt to give a full overview of the results of conceptual richness (for an overview, see, e.g., Lundgren et al. 2014). Instead, the choice here is theories that can bear relevance to the perspective on learning sustainability. Especially interesting are those perspectives that address joint processes of learning that take place in regular organizational contexts rather than in formal educational settings.

Not all learning warrants behavioral change, and, sometimes, competing interests, goals, and objectives militate against change. This is clear from our growing knowledge of, and scientific consensus around, the existence of anthropogenically induced climate change with our dismal, individual, and collective failure to effectively respond to this knowledge (Speth 2004).

It is also assumed in this chapter that creation of the values is a learning journey. To implement creation of values in an organization, it is necessary to tag on to collaborative culture. Creation of collaborative culture requires creative thinking in solving problems, leadership, knowledge management, institutionalized learning, experiential learning, communication, quality management, and continuous improvement in an organization (Roser et al. 2013).

The Learning Individual

Theories of individual learning are crucial for understanding organizational learning.

Psychologists and educators have studied individual learning for decades, but they are still far from fully understanding the workings of the human mind. Likewise, the theory of organizational learning is still in its embryonic stage.

The importance of individual learning for organizational learning is at once obvious and subtle – obvious because all organizations are composed of individuals and subtle because organizations can learn independent of any specific individual but not independent of all individuals. Psychologists, linguists, educators, and others have researched the topic of learning at the individual level. They have made discoveries about cognitive limitations as well as the seemingly infinite capacity of the human mind to learn new things. Piaget's focus on the cognitive development processes of children and Lewin's work on action research and laboratory training have provided much insight into how we learn as individuals and in groups. Some of these theories are based on stimulus-response behaviorism. Some focus on cognitive capabilities and others on psychodynamic theory. Numerous other theories have been proposed, debated, and tested (Lundgren et al. 2014).

It seems though that the more knowledge we gain on learning processes, the more we realize how little we know. Theories about learning that focus on the individual and the importance of concrete experience are often emphasized. Kolb (1984) developed a model of the "learning cycle." According to Kolb, an individual must go through the following stages in order to learn: experiencing, reflecting, conceptualizing, deciding, and acting. Concrete experiences of actions start the learning process. After that the individual observes the effects of his or her actions and reflects on these. Then the relation between action and effect is conceptualized and generalized into theoretical terms. At last she/he tests the theory by acting accordingly in a subsequent situation. Not all kinds of experiences lead to learning; learning occurs mainly when there are conflicts between expectations and experiences or between ideas and desires. Kolb's theory offers a concrete framework for developing activities within evolving networks for the different phases of the learning process. This theory on learning is interesting from the perspective of learning of sustainability because it focuses explicitly on the relationship between cognition and action rather than on the increase of an individual's stock of knowledge, though Kolb's theory has limitations. The focus in the theory is on learning from and through (primarily) individual experience. The theory does not take into consideration the contextual aspect, i.e., how some learning is influenced by social settings. It also overlooks the role of values and interests that influence human action. In the pursuit of learning sustainability, it is important to take both these issues into consideration (Kolb 1984).

Schön (1995) is an author who integrates values and beliefs in a theory on learning. According to Schön cognition cannot be separated from values and beliefs, nor can cognition and action. Importance of by illuminating the relationship between learning and action, that is, between thinking and doing by Schön (1995) sheds light on the nature of the changes that an innovative project must seek to provoke. Changes in so-called theories-in-use that often are tacit remain implicit and go unnoticed. In order to challenge them, they need to be brought to the surface: people will have to be made aware of their tacit rationalities and be tempted to reconsider them. A second relevant aspect of Schön's insights is that, even though theories-in-use play a role in the actions of various actors in a similar way, they differ in terms of contents depending on professional training and experience, social background, upbringing, and so on. Because of their intrinsic and fundamental divergence, the theories-in-use that people from different professional and cultural backgrounds hold will influence the possibility for them to learn collectively, a topic to which this chapter will now turn into.

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Collective Learning

Organizational learning is more complex and dynamic than a mere magnification of individual learning. The level of complexity increases tremendously in the change from a single individual

to a large collection of diverse individuals. Issues of motivation and reward, for instance, which are an integral part of human learning, become doubly complicated within organizations. Although the meaning of the term "learning" remains essentially the same as in the individual case, the learning process is fundamentally different at the organizational level. A model of organizational learning has to resolve the dilemma of imparting intelligence and learning capabilities to a nonhuman entity without anthropomorphizing it. What do we mean by organizational learning? In the early stages of an organization's existence, organizational learning is often synonymous with individual learning because the organization consists of a small group of people and has minimal structure. As an organization grows, however, a distinction between individual and organizational learning emerges, and a system for capturing the learning of its individual members evolves. Argyris and Schön (1978) posed one of the main dilemmas shared by all who tackle this issue: There is something paradoxical here. Organizations are not merely collections of individuals, yet there are no organizations without such collections. Similarly, organizational learning is not merely individual learning, yet organizations learn only through the experience and actions of individuals.

Collective, collaborative, and collegial learning are terms often used in the context of joint learning processes. Ohlsson (2008) describes learning as a social process when the individuals change their way of thinking about something. Collaborative learning in turn can be considered as a form of joint learning, as a special type of phenomenon, where the starting point is that all learning is based in social activities, but with the collaborative learning processes is meant something beyond the social. Collaborative learning is a situation in which at least two people learn something together (Bruffee 1993; Dillenbourg et al. 1999). Collaborative learning activities can include collaborative writing, group projects, joint problem-solving, debates, study teams, and other activities. The approach is closely related to cooperative learning, which is the instructional use of small groups so that individuals work together to maximize their own and each other's learning (Johnson et al. 2008). The difference between collaborative and collective learning is still vague. But according to Granberg and Ohlsson (2016), this difference can consist of that in collaborative learning there is group of individuals trying to learn something together but without to specify or clarify the social context. In collective learning however it is decisive to try to achieve a common understanding.

Collegial learning, however, often used when members of the working group are discussing, is related to the concept of collaborative learning. Collegial learning can be seen as a combination term for various forms of professional development where colleagues through structured cooperation acquire knowledge from a broad concept of knowledge, which also contains abilities and skills. In general, it is emphasized that peer learning or collegial learning is a method by which a more experienced person helps a less experienced to absorb specific knowledge.

The importance of the joint learning synergistic effect is often highlighted in the descriptions of the collective learning (Wilhelmson 1998; Döös et al. 2001; Döös and Wilhelmson 2011). Synergy means that collective processes based on interaction and communication lead to the new common beliefs that had not been possible for individuals to come up with on their own (Granberg 1996; Ohlsson 1996; Wilhelmson 1998; Döös and Wilhelmson 2005; Granberg and Ohlsson 2005). Wilhelmson (1998) also draws attention to the importance of symmetry between the participants in a dialogue.

Symmetry means that all participants' observations and opinions are given the same weight in the conversation and to recognize each other's experiences as valid. An asymmetric situation means a situation where power positions and opinions consolidation and an evaluative approach prevent an open and common search for new opportunities. Symmetrical relationships can thus be seen as favorable to collective learning.

Ohlsson (1996) has developed the concept of collective learning and created a model of the relationship between individual and

collaborative learning, which can be used to illustrate the collective learning. Ohlsson (1996) notes that the collective learning shapes how the individual perceive their practical work and thereby shape the collective learning potential of individual experience. It is important for the collective learning that the experiences described in the collective so that the community can jointly problematize and reflect on the experience (Dixon 1994; Granberg 1996; Ohlsson 1996; Wilhelmson 1998).

Ohlsson (1996) points out the learning dynamic character and the ongoing co-constructing of borders, for example, the permissible and the impermissible, are something that can be perceived as a condition for learning processes. There is a critical, emancipatory dimension of awareness rising of these unconscious conditions for learning. If the individual is unaware of its potential and limitations, the individual cannot respond fully to promote learning.

When the understanding of change describes what happens to the professionals and in turn leads to heightened competence, the concept of change can also be viewed as a pedagogical concept (Alexandersson and Madsén 1994; Oxenswärdh 2011). The understanding of assignment and change of thinking can thus be regarded as a learning process, which is in turn essential for active assumption of collective learning. This learning process is deemed to be an important part of the organization staff's competence development and professional development (Madsén 1994; Goodson 2005). It seems to be even the collective learning processes that help the group members to understand their responsibilities toward sustainability (Oxenswärdh 2017).

Learning Sustainability

Education *about* sustainability is a term referring to declarative knowledge sets associated with sustainability. Declarative knowledge focuses on the facts and steps of processes, the what of knowledge (Taylor 1999, p. 2). Education *for* sustainability however relates to procedural knowledge. Procedural knowledge moves beyond declarative knowledge to enactment and application – the "how" (Taylor 1999, p. 2) and "why" uses of knowledge. Distinctions between "about" and "for" are mirrored in sustainability competencies (Barth 2013; Sipos et al. 2008) and corporate social responsibility literature (Hesselbarth and Schaltegger 2014). Across this literature, Brundiers and Wiek (2011) identify three core sustainability competency sets: *a strategic* knowledge cluster, a *practical* knowledge cluster, and a *collaborative* cluster. The strategic knowledge cluster involves applying declarative and procedural knowledge to assess, analyze, create, and develop strategies for sustainable futures. The practical knowledge cluster associates with transferring knowledge into experiential practice (Brundiers and Wiek 2011). The collaborative cluster, however, make contributions to social and collective cooperation in the groups.

To summarize the discussion of learning above, it can be stated that learning is valued by incorporating both individual and collective learning processes, preferably in balance. Sustainability competencies by Brundiers and Wiek (2011) and collective learning seem to be compatible. Collective learning can then be seen as one of the tools and arena for the acquisition of these knowledge and skills.

Sustainable knowledge can even be seen as creation of sustainable values. Hence, it can be interesting to learn more about the processes included in value creation.

Processes of Creation of Values

Creation of values is described in the experience economy as an environment, in which the supplier constructs context and the consumer is part of it (e.g., Disneyland). Bendapudi and Leone (2003) argues that the co-production may extend even further and is not only about customers' involvement and participation in a physical sense but may also include psychological aspects. Based on service-dominant logic of marketing (the S-D logic), customers and firms co-create value through an integration of a set of resources (Vargo et al. 2008). Co-creation or creation of

values is the concept often used in business and management literature and research.

However, this described relationship between the customer and the provider of the product can also be transferred to describe a relationship between a student and a university teacher as well as any group leader and members of the group. In this relationship, the project manager leads and invites the member into learning process, by continuously following up the process. But how does this co-creation of values emerge in practice, both individually and in collective meaning? This is the question that will now be investigated in the following sections.

Meaning Making and Sensemaking

Meaning making as a concept is described in psychology, as a process of through which people construe, understand, or make sense of life events, relationships, and the self (Ignelzi 2000). Through meaning making, persons are retaining, reaffirming, revising, or replacing elements of their orienting system to develop more nuanced, complex, and useful systems (e.g., Gillies et al. 2014). The term is widely used in constructivist approaches (e.g., Dorpat and Miller 1992). The term is also used in educational psychology (Ingelzi 2000; Mortimer and Scott 2003).

Sensemaking, however, has been described as a process by which we give meaning to our collective experiences. It is often formally defined as the ongoing retrospective development of plausible images that rationalizes what people are doing (Weick et al. 2005). The concept was introduced to organizational studies by Karl E. Weick in the 1970s and has since had an impact on both theory and practice. The concept was intended to favor a shift away from the traditional focus of organization theorists on decision-making and aiming toward the processes that constitute the meaning of the decisions that are enacted in behavior. Research on sensemaking has become an important issue in organizational studies and has been growing as more researchers seek answers to how meanings are created in organizations (Hernes and Maitlis 2013; Cornelissen 2012; Monin et al. 2013).

Although Karl Weick is undeniably regarded as the founding father of sensemaking, his thoughts on organizational significance have been developed theoretically in different directions in the twenty-first century. The current post-Weick sensemaking research field is considered fragmented (Brown et al. 2014). The position of sensemaking research in science is controversial today. Maitlis and Christianson (2014) and also Brown et al. (2014) argue that there is no single sensemaking thinking but several different views. Some researchers consider it as a theory of sensemaking theory (e.g., Skålén and Strandvik 2005).

Other scientists talk about sensemaking lenses (e.g., Maitlis and Sonenshein 2010; Colville, Pye and Carter 2013). The sensemaking perspective approach is also used in sensemaking literature (e.g., Shahzad and Muller 2016).

Weick identified seven properties of sensemaking (Weick 1995): Identity and identification are central. Who people think they are in their context shapes what they enact and how they interpret events (Currie and Brown 2003; Thurlow and Helms Mills 2009) (Identity can be understood through multiple frames of reference. The core idea in the different definitions is: "Identity is what construes a person, that is, who I am, to which I belong. It contains the essence of being self, which separates me from others "(Gioia 1998, p. 19)).

Retrospection offers the opportunity for sensemaking. The point of retrospection in time affects what people notice (Dunford and Jones 2000); thus attention and interruptions to that attention are highly relevant to the process. A recent study, however, shows that sensemaking can be time-oriented for the past, present, and future (e.g., Gephart et al. 2013).

People enact the environments they face in dialogues and narratives (Bruner 1991; Currie and Brown 2003). While speaking, people build narrative accounts which are helping them to understand what they think and organize their experiences as well as control and predict events (Isabella 1990; Weick 1995; Abolafia 2010) and reduce complexity in the context of change management. Sensemaking is a social activity

in that plausible stories are preserved, retained, or shared (Isabella 1990; Maitlis 2005). However, the audience for sensemaking includes the speakers themselves (Watson 1995). The narratives are both individual and shared, an evolving product of conversations with ourselves and with others (Currie and Brown 2003). Sensemaking is ongoing by individuals simultaneously shaping and reacting to the environments they face. People learn about their identities by projecting themselves onto this environment and observing the consequences and the accuracy of their accounts of the world (Thurlow and Helms Mills 2009). This is a feedback process, so even as individuals deduce their identity from the behavior of others toward themselves, they also try to influence this behavior.

As Weick argued, the basic idea of sensemaking is that reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs (Weick 1993). People extract cues from the context to help them decide on what information is relevant and what explanations are acceptable (Salancick and Pfeffer 1978); Brown et al. 2007). Extracted cues sort out points of reference for linking ideas to broader networks of meaning. They are simple, familiar structures that are fragments from which people create a larger understanding of what may be occurring (Weick 1995). People favor plausibility over accuracy in descriptions of events and contexts (Abolafia 2010). An obsession with accuracy seems fruitless and impractical among people with multiple shifting identities in shaping their world, according to Weick (1995).

Many post-"Weckian" theorists such as Cornelissen (2012), Hernes and Maitlis (2013), Gephart et al. (2013), and Maitlis and Christianson (2014) emphasize the processuality of sensemaking and diverse art of the process. The process is dynamic, active, and continuous (e.g., Gephart et al. 2013). Another factor contributing to this study is the social nature of the process group members interacting with each other's. According to Weick, sensemaking takes place in interaction with the members of the organization but also intersubjectively.

Collectively shared meanings build on such an organization a reality that enables members of the community to function in a meaningful way (e.g., Gephart et al. 2013; Hernes and Maitlis 2013; Maitlis and Christianson 2014). Among others, Cornelissen (2012) and Maitlis and Christianson (2014) emphasize the significance of the environment in the sensemaking process.

According the Weick (1995) there are three stages of the sensemaking process. The first step of the sensemaking process consists of three stages: noticing, bracketing, and creating an initial sense. In this phase, existing information is screened, and explanations are searched for an event that interferes with the activities of the members of the organization. Hinting, becoming conscious, and brainstorming can only take place on the individual existing informational frameworks, i.e., mental models, which in turn are based on previous experiences (Weick et al. 2005). Creating an initial sense is done through categorization. Weick and his partners use the term labelling. The labelling phase is looking for credible explanations for what happened.

Phase two includes the interpretation of clues, the formation of intersubjective meanings, and the construction of a cognitive map.

Action is an essential part of the sensemaking process. Weick (1995) asks in his book, *Sensemaking in Organizations*, an important question: How does the action become coordinated in the world of multiple realities? Weick's answer is through communicative interaction. Brown et al. (2007) suggest that organizational activities are coordinated with narrative structures as they create the organization and its social reality. Weick states that activity generates raw material for sensemaking. It also creates the hints and stimuli needed to start the process, which in turn reinforces the process. This is important because it tests the understanding and gives feedback on the understanding that is generated in the process, and at the same time it creates the basis for new meaningfulness. Thus, activity and cognition belong together (Weick 1988).

These theoretical aspects, presented above, are used in this study as a foundation for analyzing and understanding the processes involved in the

interaction and cooperation between any group members and project leaders specially working with the issues of sustainability.

Both meaning making and sensemaking are to be seen as processes involved in learning processes within construction of mutual knowledge of sustainability.

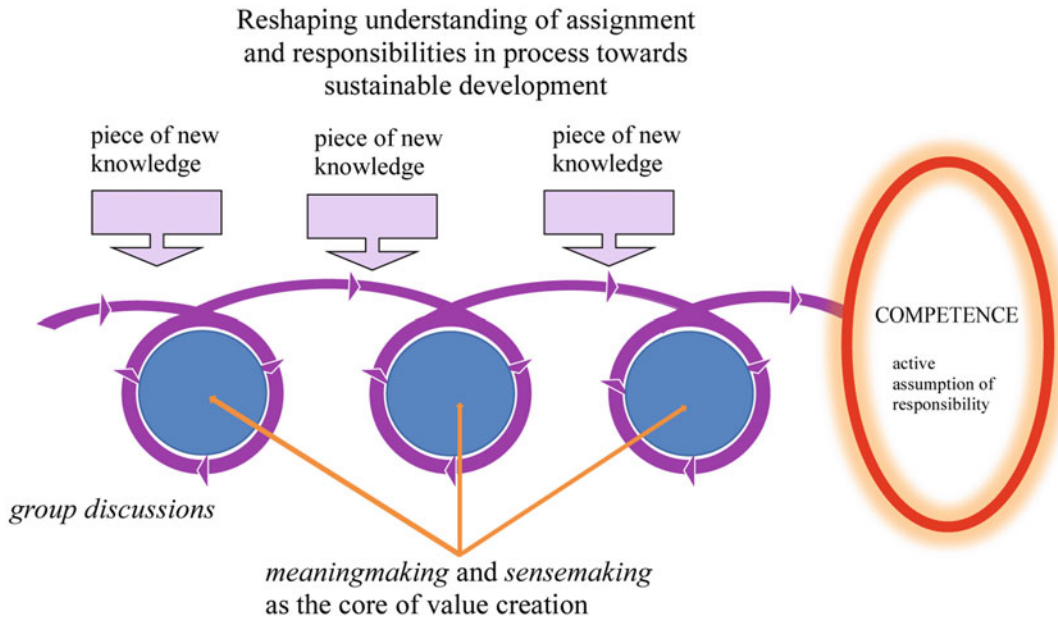
The process is an ambivalent term. It can be understood either in organizations as visible artifacts, such as language, meaning, social interaction, or power-related relationships, or it can be understood ontologically as an expression of reality (Chia 2013). From the point of view of the artifacts, the process can also be seen as a series of activities in which members of the organization are seeking understanding of unclear and confusing events in the operating environment. Sensemaking can be seen as a nonlinear process. It does not happen in certain periods, but the process functions overlap, and their intensity varies. The process is different for each member of the organization (Thurlow and Helms Mills 2009).

These theoretical aspects described above can be interpreted into practice:

1. Something needs to be explained.
2. Clues are found indicating some explanation.
3. Reasonable explanations occur to the event.
4. Explanations are spread through communication.
5. Speculation becomes universal but may not be accepted at once.
6. Consensus occurs around what has occurred

(Individuals acknowledge a certain type of explanation. However, there may be alternative explanations/sentences to the event)

The involved processes, learning processes (both individual and collective), as well as value creation by meaning making and sensemaking processes are to be seen as interconnected. Furthermore, these processes can be considered as a framework for understanding the complexity of learning on issues of sustainability in any organizational context. See presentation for framework in Fig. 1 Processes toward sustainability.



Value Creation and Sustainable Development, Fig. 1 Processes involved in creation of values

Conclusions

This chapter aimed to create and broaden knowledge about the processes involved in the co-creation of values toward more sustainable development. The interplay and organizational learning between actors in groups can be seen as a platform or arena for value creation. The discussions and the interaction with other members of the group do not only create value for the subject itself but also for the whole organization. Group members can then be seen as co-producers of values. This value-creation process includes several other processes and seems to be an important part of learning processes.

The learning process is fundamentally different at the organizational level. To sum up the discussion, there are important factors relevant for learning toward sustainability in an organization. Those factors, listed below, include factors for co-creation of values. Also, the actors' understanding and interpretation of the change in thinking are significant for the way in which they assume change for fulfilling what they are commissioned to do. The relevant and significant factors for collective learning and creation of values are:

- Awareness of the level of complexity collective learning in organizations compared with learning as an individual process.
- Awareness of that learning can be a social process when the individuals change their way of thinking about something – learning toward sustainable development should be connected to both individual as well as organizational identities.
- It is decisive to achieve a common understanding.
- It is necessary with synergy, based on interaction and communication which generate new common beliefs.
- Learning in organizational context requires certain symmetry between the participants.
- Awareness of that the collective learning shapes how the individuals perceive their practical work and thereby shape the collective learning individual experience potential.
- It is important that the experiences are described in the collective so that the community can jointly problematize and reflect on the experiences.
- Both processes have a dynamic character.
- The ongoing co-construction of permissible and impermissible borders is in progress within both processes.

Furthermore for successful collective learning, it is important that:

(a) The group or team must be included in a common situation.
(b) Participants should have roughly the same opportunities to learn.
(c) The situation should be of such a character (emotional and jointly) so that it mobilizes the mental energy required to get at a position of substantially learning.
(d) It is also significant, according to develop action strategies for how the collective knowledge can be used to create collective expertise.

Prerequisites, according to Dixon (1994) and Weick (1995), for collective learning and value creation are:

- Interaction
- Communication and reflection
- Structure of the organization
- Organizational culture
- Working methods
- Ways to inform and communicate

Further work is needed for a better understanding of the role of both individual and organizational learning processes of value creation, in order to learn issues of sustainability. We are in need of knowing what kind of types of mental models that are favorable and which models are appropriate for representing dynamic complexity of learning sustainability; we need methods with which we can capture the understanding of such complexity as well as means through which new learning for sustainability can be transferred to the whole organization. The task for educators and

learning agents is to facilitate participative and systemic critical learning systems and situations where these conditions can be realized.

In order to carry out changes in sustainability, with all the perspectives in mind, the change leaders should focus on promoting what is called sensemaking within the organization during the change process. Sensemaking is basically about understanding the change for and toward sustainable solutions and why the change should take place and giving an opinion on what the change means at both individual and organizational levels. Learning journey toward sustainable development seems to be in need of both individual and collective learning processes.

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Value-Based Investments in Sustainability

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Synonyms

Ethical investing; Ethics based investing; Impact investing; Mission Driven Investing; Social impact investment; Social investing; Socially responsible investment; Sustainable investing

Definition

The term *value-based investments* focuses on incorporating environmental sustainability-based ethical principles and moral beliefs into the investment directives, approaches, and goals of investors and companies.

Introduction

Value-based investments have become a major topic of discussion in the twenty-first century with more attention and greater amounts of capital chasing this category each year. Value-based investments in sustainability tend to encompass the same strategic goals as impact investing and environmental social, and governance (ESG), as well as, socially responsible investing (SRI). In more recent years, specialized investment products, sustainable corporate goals, prominent university research, and investor activism have spurred a rapid development of the lens through which investments are examined. In spite of all the activity in this nascent categorical proliferation, there is an absence of a uniform definition of *value-based investments* and corresponding ambiguous boundaries for related terminology. As a result, the question of what qualifies as a value-based investment remains the subject of debate. In general, any investment can have a positive social impact, but it depends on each investor's definition as determined by his/her own values (Bugg-Levine and Emerson 2011, p. 9). The ideology and drivers behind value-based investments are defined primarily through activist investors as well as private corporate social responses (Höchstädter and Scheck 2015).

A portion of investors today believe that maximizing their financial return is not sufficient. These investors aspire to craft portfolios that are able to become an extension of their beliefs and core values. In this scope, investors seek to select a portfolio of stocks comprised of investments that align to corporate practices and business activities that support the investor's principles (Harji and Jackson 2012). Value-base investing is an outcome of this investment strategy. As of the current writing of this entry, there are now over 1400 global institutional investors signatories to the United Nations' Principles for Responsible Investing Initiative and more than $6 trillion invested in mutual funds, separate accounts, and institutions with a value-based social responsibility mandate (Key 2015). As value-based investing becomes more and more mainstream, investors are taking advantage of greater opportunities to align their own interests and values with their investment objectives.

Background and History

Value-based investing has a long history, but only in recent years has it become a mainstream topic. As early as the eighteenth century, founder

of the Methodist Church John Wesley outlined tenets for ethical investing focusing on values such as avoiding investments in industries that harm a worker's health (Youseff and Whyte 2013). Additional historic examples include the development of finance institutions such as the Commonwealth Development Corporation in the UK and the World Bank's International Finance Corporation, established in 1948 and 1956, respectively (O'Donohoe et al. 2010). The world's first sustainability value-based investment fund, PAX World Fund, was introduced in 1971, offering a vehicle for those against nuclear arms production. In 2007, the similar strategy "Impact Investing" was coined by the Rockefeller Foundation, and the investment strategy focused on investments with a positive social and environmental impact (Höchstädter and Scheck 2015). Presently, under the umbrella of value-based investments are three strategies with differentiated targets related to social and environmental impact: socially responsible investing (SRI), ESG (environmental, social, and governance) factor investing, and impact investing.

Definition of Value-Based Investments Through Categorical Explanation

Socially responsible investing (SRI) is part of the overall principle of value-based investing and seeks to align an investor's values and beliefs with his/her investment by screening out companies or industries based on specified criteria (Sullivan 2010). Originally, faith-based institutions developed the strategy to screen out stocks and businesses that were morally objectionable and against their values and beliefs. Some common examples of screen filters include stem cell research, adult entertainment, firearms, gambling, tobacco, child labor, carbon emissions, alcohol, animal welfare, abortion, and nuclear power (Wine 2009). The level of screen can be adjusted to match an investor's preference, ranging from absolutely zero tolerance to having a pre-defined minimum revenue range from the activity in question. For example, investors can invest into mutual funds or ETFs with a negative filter for these attributes; however, a common problem exists where each individual investor has their own unique values and some may be left out when investing into a pool fund (Lemke and Lins 2014).

Environmental, social, and governance (ESG) investing is another strategic subcategory under the value-based investing domain. Under the ESG approach, the emphasis is to seek and include companies based on the investor's individual value sets rather than filtering and excluding companies with activities that are undesirable to the investor (Coleman 1988). Under the ESG approach, these factors are integrated into the whole investment process from company selection to portfolio creation and encompass both positive and negative screens. There are thousands of other factors that can be considered in each category, but the following are some of the most common types. In the environmental category, the most common factors include emission and waste, water stress, clean technologies, and climate change (Key 2015). Common social factors include health safety of employees, community relations, data privacy, and product integrity. Governance issues include executive board diversity, executive compensation, corporate structures, and business ethics (Höchstädter and Scheck 2015). Strategically, an exemplary ESG factor process would start with positive selection, where investors select from defined ESG criteria (Key 2015). This can be followed up with activism through coordinated shareholder voting of particular issues that are important to the investor's values and beliefs. This step synergizes with engagement, where investment funds and the investor will monitor the performance of the portfolio companies to ensure they are continuing to adhere to the principles (Holland 1998). In recent years, investors as well as asset managers are relying on ESG rating agencies to measure and compare companies' ESG adherence and performance (Huber 2017).

Impact investing is a relatively new domain of investing that incorporates many of the fundamental principles of value-based investing with an objective to create a positive and measurable impact on major environmental or social issues while achieving a market risk comparable return (Bugg-Levine 2011). Similar to value-based

investing, impact investing will have a different definition for each individual investor depending on their goals and objectives. Some investors are willing to sacrifice a great deal of financial return in order to boost the environmental or social outcome impact, whereas others may only want to pursue impact investing to the extent that it yields a risk-adjusted market return for similar levels of investment (Holland 1998). Impact investors tend to be high-net-worth individuals or institutions as they have the capital and drive to pursue larger-scale social and environmental projects. These projects are highly concentrated in private markets focusing on opportunities to deliver specific outcomes (Höchstädter and Scheck 2015). Examples of these projects include microfinancing for economic development loans in developing low-income communities as well as building primary and secondary school buildings for rural villages in developing countries by an institution with an environmental and educational focus (Key 2015). Some common examples of impact opportunities can take place in the form of green bonds, equities, and development organizations that vary based on impact, financial returns, lockup liquidity period, and overall riskiness (Firzli and Nicolas 2017). The five most prevalent types of impact investing target areas are healthcare, education, infrastructure, sustainable products, and resource allocation efficiency (Berliner and Spruill 2013).

Value-Based Investing from an Institutional Perspective

Institutions, private corporations, and money managers are taking notice of the tremendous capital influx into value-based investments in the last decade. Many new investment vehicles, value-based and impact-focused investments, and other opportunities have spawned to take advantage of the change in investor tastes and preferences. $6.57 trillion of only US assets under management have incorporated ESG criteria in 2014, which is almost double the $3.47 trillion 2 years prior in 2012 (United States 2016). Institutional investors, family offices, high-net-worth individuals, as well as women and millennials in particular constitute the majority of current interest in the market (United States 2016). Research shows that Millennials tend to be more value focused as well as more environmentally conscious and aware, with 85% of millennial respondents agreeing that social and environmental impacts are an important part of their investment decision compared to 70% of Generation X and 49% of baby boomers (Key 2015).

Institutions are unique entities that are both investors and recipients of investment. As such they are often conflicted between financial return and institutional mission. The best illustration is the state university, created using public investment funding for the purpose of furthering education. The state university has its own endowment for the purpose of grants and other uses; however, they may become conflicted with a choice between high financial return that goes against furthering education and university missions (Höchstädter and Scheck 2015). As value-based investing for sustainability has become more mainstream, institutions are finding ways to incorporate ESG and social impact investments into their endowments that result in alignment of interest.

Governments and national and international public institutions have long sought to leverage their policies to become more impact oriented, and the value-based investment movement has begun to spur large pension funds and asset owners to co-invest with government entities in impact-related asset classes and projects (Firzli and Nicolas 2017). Value-based investing has become an international focus among governments and corporations. The National Government of India has made corporate social responsibility mandatory for corporation organizations making the discussion topical throughout the entire country (Shah and Ramamoorthy 2013). Similar legislation in the UK, Korea, Netherlands, Australia, and Denmark exist for compulsory environmental reporting but not for all encompassing ESG reporting. The United Nations has been very proactive in the creation and adoption of environmental and ESG accounting practices, creating the division of the United Nations Division for Sustainable

Development publication *Environmental Management Accounting Procedures and Principles* (United Nations 2002). In 2014, the European Commission also issued new directives obligating large corporations with more than 500 employees to provide similar types of disclosures to public markets and investors (Pedersen 2015). The requirements of reporting involve environmental, social, employee-related, human rights, anti-corruption, and bribery measures as well as their diversity policy for management (Solsbach et al. 2014). As many countries transition to include value-based investment sustainability reporting objectives, frameworks such as the Global Reporting Initiative, the United Nations Global Compact (UNGC), the UN Guiding Principles on Business and Human Rights, and the OECD Guidelines are becoming more ubiquitously adopted (Brown et al. 2009).

The Global Reporting Initiative is one of the many organizations and institutions responsible for monitoring and establishing guidelines for sustainability reporting. Under increasing pressure from stakeholder groups such as investors, governments, and corporations to be more transparent about their environmental, economic, and social impacts, many companies voluntarily choose to publish a sustainability report that adheres to the recommendation and guidelines established in the Global Reporting Initiative (Pedersen 2015). The GRI framework allows third parties to assess and standardize the environmental impact of the company via its activities and supply chain such CO2 emission (Global Reporting Initiative 2015). A common criticism with GRI reporting is that it provides a greater focus on reporting, rather than actionable reporting, quantity over quality. As more companies voluntarily adhere to the GRI framework, the risk of "greenwashing" increases, where companies may falsify or exaggerate their environmental and social impacts in order to garner positive perception (Brown et al. 2009).

In corporate reporting, many corporations place oversized emphasis on eco-efficiency or the reduction of resource, energy, and waste per unit of production. This ensures that only a partial picture of a company's footprint is transparent and typically emphasizes self-reporting on statistics that paint the company in a positive light. Thus, companies can demonstrate large improvements in eco-efficiency while not necessarily addressing their true ecological footprint.

In order to combat greenwashing and increase transparency, many institutions and corporations are voluntarily certified by third party auditors, which independently verify the claims made by self-reporting entities. Third party independent verification assures stakeholder reports are fully credible and contains audited information. Many use internationalized standards to gauge adherence and compliance such as AA1000, ISAE 3000, and GRI (Gray 2001). Independent verification auditors typically provide a detailed report that outlines the data collection process as well as provide consulting on improving existing frameworks. Thus, these independent social auditors attempt to blur the boundaries between organizations and society to establish a fluid line of communication (Gray 2001).

Value-based financial instruments and portfolios have been on the rise in the last decade. Money managers with an ESG focus go beyond the simple integration of defining filter parameters and factors in portfolio creation. They support their investor's principles through active shareholder engagement, directly communicating with companies on behalf of shareholders and exercising their voting rights, shareholder resolutions, and other privileges (Shah and Ramamoorthy 2013). This activism has greatly boosted corporate accountability in ESG practices and has driven many investors to rely on managers using ESG factors for value alignment. ESG managers and investors assert that considering ESG factors such as environmentally responsible behavior, sustainable practices, and strong corporate responsibility results in a more comprehensive and holistic investment analysis for companies and investment opportunities (Solsbach et al. 2014). As such, money managers can either set up private equity, debt instruments to directly support an investor's goal in the case of high-net-worth family offices or go through indirect intermediary methods by creating portfolios that proxy the range of environmental and social values of the investor. Value-based investment instruments in sustainability have further evolved to include a broad spectrum of

strategies such as divestment, positive investing, community investment, as well as shareholder activism and engagement (IRRC Institute 2017). Divestment occurs in an institutional setting when money managers actively remove stocks as in the case of CaLSTRS (California State Teacher's Retirement System) which removed $237 million from tobacco stock holdings (Gray 2015). Positive investing involves a new generation of socially responsible investing that involves a broad revamping of industry methodology for driving change through investments. This approach effectively enables investment managers to positively express the values and beliefs of their investors such as social justice and environmental issues without sacrificing portfolio diversification or long-term profit (Wine 2009). It furthers the idea of value-based investment sustainability, extending it to a company's sustainability or potential ability to succeed in the long term. Community investment allows direct investment by institutions rather than through equity purchases, allowing money managers to directly invest in the areas that their client's money can make a measureable impact (Wine 2009).

At present, the bodies of research covering the financial performance of value-based investments in sustainability is limited as this is a newer holistic approach to investing and a wide spectrum of return results have been documented. With no general consensus or industry standard on what constitutes "value-based investments in sustainability" and what does not, it is currently difficult to use standardized metrics for ongoing measurement of impacts. As value-based investments in sustainability become more mainstream, the positive impacts associated with its exponential growth and demand will expand academic research, increasing the amount of tools, data, and analysis available to gauge and assess the effectiveness of this new investment approach.

Cross-References

- ▶ Divestment and Sustainable Development
- ▶ Investor Activism Towards Sustainability
- ▶ Socially Responsible Investing in Sustainable Development

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Variables

► Dimensions of Sustainability in Higher Education