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An Analysis of Sustainable Development Approches in the Ugandan Agricultural Value Chain

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Abstract

Sustainability has become a 'buzzword' over the years missing an overall comprehensive meaning especially in the context of East Africa. In this paper we take both a sensemaking and cognition lens in order to assess how sustainable development, as manifested by the United Nations (UN), is perceived within the Ugandan agricultural value chain. By proposing a cyclical process model for both sensemaking and cognition we argue that in contrast to previous studies sustainable development is not perceived as a nested concept, but is primarily seen as an economic concept enabling stakeholders to improve their livelihoods in the short term. Through illustrating this, a tension becomes apparent between the long-term sustainable development policies and the short-term sensemaking of these policies by local stakeholders.

Introduction

It is well established that during the past century the global population has increased exponentially, and according to the most recent estimations the world's population is estimated to grow up to 9,5 billion by 2050 (WorldBank, 2016). In the light of this rapid growth both scholars and practitioners have become aware of the fact that the current ecosystem in place is far from able to cope with this growth in a sustainable way and consequently ensuring the well-being of our planet and its population. Because of this, the concept of sustainable development has become increasingly important. In the early stages of research, sustainable development was defined as "the ability to make development sustainable – is to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43). In this definition Brundtland recognized the present and future human dependency on the

environment. The pressing impact of the topic sustainable development has created a shift in how individuals, organizations, and governments perceive the environment. Consequently, the growing popularity of this issue requires an increased understanding and consideration of how sustainable development is perceived and interpreted by local stakeholders. Such an understanding, of how sustainable development is perceived on a local level, would improve both the development and implementation of sustainable development policies, leading to an increased effectiveness of sustainability.

Regardless the growing popularity of sustainable development the existing literature relatively neglects how local stakeholders make sense of sustainable development in the context of developing countries (Hopwood, Mellor, & O'Brien, 2005; Leff, 2000). Hence, this research will complement the existing literature through developing a perceptual framework on how stakeholders, within the Ugandan agricultural value chain, make sense of sustainable development and how this is embedded within their cognitive models which form the base for stakeholder sensemaking and influence not only how stakeholders perceive the world, but also how they tend to behave (Weick K. E., 1995). Consequently, using sensemaking theory to map and examine the effectiveness of sustainable development initiatives and policies in the context of developing countries and contributing to the existing theory on sustainable development.

The context of this research will focus on the case of the Ugandan agricultural value chain. Uganda, once know as the pearl of Africa, is a relatively undeveloped country located in East Africa. Even though, Uganda experienced turbulent times, characterized by unrest and civil war, it is currently a relatively politically stable and peaceful country. In terms of economic development, agriculture is the most important economic sector and the countries largest employer. Therefore, Uganda poses as an excellent case to examine sustainable development in the agricultural value chain.

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In light of the growing concern regarding the increased and incremental devastation of our planet the United Nations (UN) developed the so called Sustainable Development Goals (SDGs) in 2012. The SDGs are a unified framework containing a set of seventeen goals with conditions necessary to assure the stability of Earth's systems, as an extension on the Millennium Development Goals (MDGs). The main priorities of these SDGs are twofold: protecting the Earth's life-support system and the reduction of poverty (Griggs, et al., 2013). This paper will examine how sustainable development, as manifested by the SDGs, is interpreted by local stakeholders in the Ugandan agricultural value chain in order to assess the overall effectiveness of sustainable development policies on the behavior of stakeholders.

In order to capture the broad scope of interpreting sustainable development this paper will draw upon the sensemaking research in relationship to corporate social responsibility (CSR) of Basu & Palazzo (2008), which proposes a "process model of organizational sensemaking explaining how managers think, discuss and act with respect to their key stakeholders and the world at large" (Basu & Palazzo, 2008, p. 122). In contrast to Basu & Palazzo, who focus on the managerial perspective of sensemaking, this paper puts emphasis on the diverging perspectives of local stakeholders in the value chain regarding their environment and the world at large. Focusing on local stakeholders across the value chain such as farmers, traders, NGO's, and scholars, is important since it will enable me to develop a more indepth and holistic understanding regarding the different perceptions on sustainable development.

In line with the concept of sensemaking are cognitive models, which underlie how individuals percieve and interpreted their environment. According to Tripsas, cognitive models are formed through the bounded rationality in decision making and are "typically based on historical experience as opposed to current knowledge of the environment"

(Tripsas & Gavetti, 2000, p. 1148). Moreover, "history contains the cognitive logic that facilitated organizational members' understandings and adjustment during change and that will most likely guide their understanding of and adjustment to events in the future" (Isabella, 1990, p. 35). Indicating that deeply embedded cognitive models significantly influence the way individuals interpret and perceive things.

Consequentially the objective of this study is to examine how cognitive models of individuals influence the way local stakeholders in the Ugandan agricultural value chain make sense of the concept of sustainable development, thus complementing the literature by offering novel insights on how sustainable development is interpreted in the context of relatively undeveloped economic circumstances. This through addressing the following research question:

How do different stakeholders in the Ugandan agricultural vale chain make sense of sustainable development, as manifested by the Sustainable Development Goals developed by the United Nations?

This research question will be answered through conducting exploratory qualitative research among the different stakeholders active in the Ugandan agricultural value chain. A total of 17 interviews were conducted, which enabled the identification of patterns regarding how stakeholders make sense of sustainable development in the Ugandan agricultural value chain. Taking issue with the established view we present a deeper understanding of sensemaking theory on the perception of sustainable development which is relevant and important for both theory and practice in the context of the East African agricultural industry. By doing so, we contribute to a more in-depth understanding of sustainable development among local stakeholders, enabling the development of better policies for creating awareness and implementation of sustainable development in the context East Africa agriculture.

Following this introduction this paper is organized into four chapters. In order to

facilitate the discussion central to this paper, the first chapter will review the extensive literature on sustainable development, sensemaking and cognitive models. The second chapter will elaborate on the qualitative methods used in order to collect valid and reliable data during the data collection process. This is followed by the data analysis which enabled the identification of different perceptions on sustainable development and determining the connection to sensemaking and cognition theory. Finally, a discussion chapter will reflect on both the theoretical and practical implications of sensemaking theory on the different perceptions on sustainable development.

Theoretical Background

In order to contribute to the existing literature a comprehensive literature review is conducted. To answer the research question sufficiently the concepts of sustainable development, sensemaking and cognitive models were reviewed in order to examine which relevant perspectives exist within the academic literature.

Sustainable Development

Over the past decades the concept of sustainable development has been subjected to dozens, if not hundreds, of academics and practitioners which have articulated their own definition of sustainable development. Yet a clear, comprehensive meaning of the concept remains elusive. This wide variety in definitions has led some observers to call sustainable development “an oxymoron: fundamentally contradictory and irreconcilable” (Kates, Parris, & Leiserowitz, 2005, p. 20). Furthermore, when each individual can redefine and give meaning to sustainable development to fit their own purpose, the concept at large becomes meaningless in practice. Consequently, it is of significant importance for both theory and practice, when researching sustainable development, to give a clear and comprehensive definition to the concept in order to prevent misapprehension and confusion regarding the meaning of sustainable development.

The most widespread definition of sustainable development stems from 1987 when Brundtland defined sustainable development as the “ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 43). With this definition Brundtland indicated that sustainable development is focused on intergenerational equity, and that development entails that economic growth and the sharing of resources is necessary to address human needs and are required to sustain them. In addition, Brundtland argues that the concept of sustainable development implies limits – “not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities” (WCED, 1987, p. 43).

Drawing on Brundtland definition and argumentation, the Board of Sustainability of the United States National Academy of Sciences published a report in 1999 regarding sustainable development ‘Our Common Journey: A Transition toward Sustainability’, which argued that the concepts of ‘sustaining’ and ‘development’ have to be seen separately. According to the authors, there is a clear distinction between ‘What is to be Sustained’, under which the categories of nature, life support and community fall, and ‘What is to be Developed’, under which the categories of people, economy and society reside. Illustrating that the concept of sustainable development is not composed out of one single definition, but is rather consists out of different pillars which indicate what is to be sustained and what is to be developed.

A further expansion of the concept of sustainable development was provided at the 2002 World Summit on Sustainable Development through defining three commonly used pillars of sustainable development: economic, social and environmental. The Johannesburg Declaration created “A collective responsibility to advance and

strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental development – at local, national, regional and global levels” (Johannesburg Declaration on Sustainable Development, 2002, p. 1). Through defining the three pillars the Johannesburg Declaration addressed the limitations and growing concern regarding the sustainable development framework proposed by the Board of Sustainability of the United States National Academy of Sciences, in which development was mostly viewed as ‘economic development’ and were ‘human development’ has been relatively neglected.

In line with these three pillars of categorizing sustainable development is another way of defining sustainable development which is ‘how it measured’ and what it specifically aims to achieve. Based on the three pillars of economic, social, and environmental the UN developed a unified framework containing a set of seventeen goals with conditions necessary to assure the stability of Earth’s systems in order to cope with the growing concern of the increased devastation of the planet. The main priorities of these Sustainable Development Goals (SDGs) are twofold: protecting the Earth’s life-support system and the reduction of poverty (Griggs, et al., 2013). These SDGs are an extension of the Millennium Development Goals (MDGs) which were developed in 2000 with the goal to establish measurable, universally-agreed objectives for eradicating extreme poverty and hunger, preventing deadly but treatable disease, and expanding educational opportunities to all children, among other development imperatives (Griggs, et al., 2013). To put it differently, the SDGs are a reformulation of the MDGs with the goal to finish what the MDGs started. Instead of perceiving the paradigm of the three pillars separately the SDGs view it as a nested concept in which “the global economy services society, which lies within the Earth’s life-support system” (Griggs, et al., 2013). Consequently, the definition of sustainable development, provided by Brundtland in 1987,

was revised to “development that meets the needs of the present while safeguarding Earth’s life-support system, on which the welfare of current and future generations depends” (Griggs, et al., 2013). This implies that the three pillars of economic, social and environmental are embedded in the concept of sustainable development, which indicates a new paradigm of sustainable development and how it should be defined accordingly.

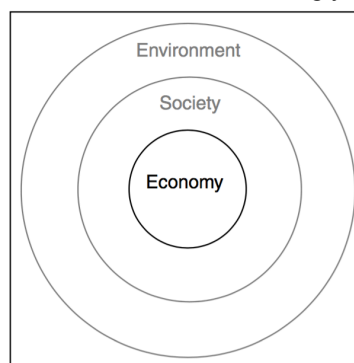


Figure 1: Nested Sustainable Development

In a broad sense the concept of sustainable development is an attempt to address the growing concerns of stakeholders and practitioners about a variety of environmental and socio-economic problems. With regard to the context of agriculture, sustainable development is defined as “the practices that meet current and future societal needs for food and fiber, for ecosystem services, and for healthy lives, and that do so by maximizing the net benefit to society when all costs and benefits of the practices are considered” (Tilman, Cassman, Matson, Naylor, & Polasky, 2002). Indicating that in order for society to engage in sustainable agriculture, there should be a fuller accounting of costs and benefits of ecological practices, which should be the basis for policy, ethics and action. My research will draw upon the definition as provided by the SDGs framework of the UN, in order to examine how stakeholders within the Ugandan agricultural value change make sense of the three pillars, i.e. economic, social and environmental, of sustainable development and to what extent this is embedded within their cognitive models.

Sensemaking

Having defined the concept of of sustainable development a closer look can be taken at sensemaking. The theory of sensemaking is greatly influential within organizational research and it continues to be a topic of central interest among scholars (e.g. Ring & Rands, 1989; Weick, 2005; Basu & Palazzo, 2008). Consequently, a wide variety of definitions of sensemaking can be found within the academic literature. Since sustainable development is also subjected to a wide variation of definition, the concept is becoming relatively ambiguous and not clear-cut. This results in different interpretations of sustainable development in different contexts, indicating the importance and relevance of sensemaking theory in the process of determining the meaning stakeholders attach to sustainable development.

One of the pioneers in sensemaking research are Ring & Rands who described it as “the process by which individuals develop cognitive maps of their environment” (Ring & Rands, 1989). With this view, Ring & Rands made a significant contribution to sensemaking research by indicating that concepts, such as sustainable development, are not primarily seen as output of external forces driving demand for sustainability, but instead follow from embedded cognitive processes of actors involved. Indicating that the process of sensemaking enables stakeholders to develop a perception of not only their direct environment, but also the world at large.

Reflecting on the definition of Ring & Rands, who define sensemaking as a process of individuals interpreting their environment, Weick (1995) refers to sensemaking as the process by which individuals seek plausibly to understand, equivocal or confusing issues or events. In contrast to Ring & Rands, Weick makes a clear distinction between equivocality and ambiguity in terms of sensemaking, which is crucial for understanding the difference between interpretation and sensemaking. Weick makes a clear distinction by arguing “that interpretation implies that there is already something in the world waiting to be

discovered (and will be found once ambiguity is cleared), sensemaking is less about discovery than invention, i.e. sensemaking refers to the processes by which individuals generate what they interpret” (Weick K. E., 1995, p. 13). Weick not only implies that both discovery and invention are both aspects of sensemaking, but also argues that both are embedded in the process of sensemaking. Weick’s vision might explain how stakeholders use both discovery and invention in the process of making sense of sustainable development.

Two decades later Weick, further elaborates on the sensemaking perspective by arguing that the concept fills important gaps within organizational theory. Weick (2005) offers a way of thinking regarding sensemaking which involves “the ongoing retrospective development of plausible images that rationalize what people are doing” (Weick, Sutcliffe, & Obstfeld, 2005, p. 409). Indicating that sensemaking enable actors to give meaning to a particular view and frame this view accordingly by linking it more to human behavior and identification. Furthermore, Weick, Sutcliffe and Obstfeld (2005, p. 410) argue that organization emerge from an ongoing process in which people organize to make sense of equivocal inputs and enact that sense back into the world to make it more orderly. In different words; sensemaking enables individuals to organize and consequently enables actors to define and give meaning to their environment. Whilst sensemaking has primarily been viewed from an organizational perspective, where it has been observed that organizations shape “sensemaking at more marcolevels” (Weick, 1995, p. 70), defining sensemaking as merely a form of constraint, it is nevertheless interesting to take a perspective of sensemaking on a microlevel. Consequently, addressing how local stakeholders make sense of their environment, and in this study make sense of sustainable development.

Since there is no single agreed definition of sensemaking this paper will draw upon the sensemaking research in relationship to

corporate social responsibility (CSR) of Basu & Palazzo (2008), which proposes a “process model of organizational sensemaking explaining how managers think, discuss and act with respect to their key stakeholders and the world at large” (Basu & Palazzo, 2008, p. 122). In their research Basu & Pallazo propose a change in perspective focusing more predominantly on the process of how organizations make sense of their actions, which is in line with Weick’s perspective on sensemaking, instead of focusing primarily on the content of the actions. Basu & Palazzo argue that such a switch is necessary in order to fully understand the underlying motives and reasons for particular actions taken by organizations. “Sensemaking provides insight into the mental models that underlie perceptions of CSR and ‘diagnosing such mental frames’ might help us understand the causes of this ambiguity” (Basu & Palazzo, 2008, p. 124). Indicating that sensemaking facilitates a deeper understanding of how specific phenomon and concepts are give meaning within the cognitive models of stakeholders. More specifically they argue that decision making emerges from sensemaking which stems from their cognitive models regarding how they perceive their environment and the world at large. Within their research Basu & Palazzo propose a process model of sensemaking consisting out of three dimentions: cognitive (What firms think), linguistic (What firms say), and conative (How firms tend to behave). This tripartite model sheds light on the complex process of how organizations not only define the content of their actions, but also the how the process of sensemaking occurs.

In order to fully understand the depth of how stakeholders within the Ugandan agricultural value chain make sense of sustainable development this research will focus on the cognitive dimension proposed by Basu & Palazzo to formalize an understanding of what sustainable development means to local stakeholders with the agricultural value chain. Through generating a deeper understanding of sensemaking and sustainable development I will contribute to a more comprehensive

understanding of the differences in sensemaking of sustainable development, enabling both scholars and practitioners to understand the effectiveness of creating awareness and policies regarding sustainable development.

Cognitive Models

As illustrated by Basu & Palazzo, underlying to how we make sense of the world around us and what we think is the cognitive dimension. Human activity can be portrayed as “an ongoing input-output cycle in which subjective interpretations of externally situated information become themselves objectified via behavior” (e.g., Berger & Luckmann, 1967; Weick K. E., 1979). Through this continuous process of processing information individuals develop cognitive models which enable them to give meaning to their environment and the world at large. These cognitive models form the base for stakeholder sensemaking and influence not only how stakeholders perceive the world, but also how they tend to behave. This view is consistent with both a constructionist (Berger & Luckmann, 1967; Weick K. E., 1995) and enactment (Smirchich & Stubbart, 1985) approach in organizational theory, which describe organizations as acting not within a “real” environment but a perceived environment and behaving not as “real” organizations but as self-perceived organizations.

A different perspective on cognition is provided by Porac (1989) who argues that “Cognitive models are the critical link between group-level and firm-level dynamics and are developed through the process of problem-solving, induction, and reasoning” (Porac, Thomas, & Baden-Fuller, 1989, p. 412). According to Porac, cognitive models are composed of two beliefs held by stakeholders which are the indentify of the organization, competitors, and customers and the causal beliefs which indicate how to compete wihtin the environment it operates. Porac emphasizes that these two beliefs are key to understanding how decision makers perceive their environment, and consquently how this guides the decision making process.

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In contrast to Porac, Tripsas (2000) puts more emphasis on how cognitive models relate to organizational capabilities and inertia (Tripsas & Gavetti, 2000). According to Tripsas, cognitive models are formed through the bounded rationality in decision making and are “typically based on historical experience as opposed to current knowledge of the environment” (Tripsas & Gavetti, 2000, p.1148). This illustrates the link between cognition, capabilities and inertia by indicating that deeply embedded cognitive models not only significantly influence how stakeholders perceive things, but also how cognitive models can form a bias towards understanding new information correctly.

Whereas Porac and Tripsas put emphasis on the decision making process, Mantere (2012) focuses on the concept of change. Mantere explains why change succeeds or fails by elaborating on the concept of ‘sensemaking’ and ‘sensebreaking’ (Mantere, Schildt, & Sillince, 2012). Mantere argues that “Sensemaking entails how strategies communicated by managers persists as residuals in the mind of employees, becoming part of what we call an organization’s sensemaking history, whereas sensebreaking explains the managerial action by which previous strategies make room for new ones” (Mantere, Schildt & Sillince, 2012, p. 173). Indicating the importance of previous held perceptions and cognitive models on how stakeholders perceive their environment.

In addition, Mantere argues that knowledge embedded in the cognitive models of individuals can pose as a barrier to the implementation of a new strategy or interpretation of a new concept or idea. On the other hand, Mathieu (2000) illustrates that “shared-team and task-based mental models relate positively to subsequent process and performance” (Mathieu, Heffner, Goodwin, & Cannon-Bowers, 2000), indicating that cognitive models can create both barriers and opportunities. Overall, cognitive models are the descriptions of the environment that we consciously or unconsciously form based on our experiences and which consequently guide

how individuals perceived their direct environment and the world at large. Since Mantere’s perspective on cognitive models and sensemaking is in line with Basu & Palazzo’s research, by both emphasizing that cognitive models and sensemaking facilitate the understanding of ambiguity, this research will draw upon Mantere’s definition emphasizing the importance of previous cognitive models on stakeholder sensemaking.

As the literature indicates that sensemaking and cognitive models guide interpretations, this paper will place these concepts in the context of the Ugandan agricultural value chain and showing their importance in the interpretation process of sustainable development. Through illustrating how sustainable development is understood, and how this interpretation is influenced by sensemaking and cognitive models, will contribute to a better understanding of the underlying values stakeholders attach to sustainability, allowing both academics and practitioners to further research and develop policies regarding the effectiveness of sustainable development in the context of East Africa. Taking issue with the established view and through analyzing the different stakeholders this paper will show a deeper and holistic understanding of cognitive models and stakeholder sensemaking in relationship to sustainable development which is relevant and important for both theory and practice. In sum, this research will address how cognitive models affect the concept of sensemaking in understanding sustainable development. Having illustrated the significance of both sensemaking and cognitive models on the interpretation of sustainable development, the next section will illustrate the dynamics of the Ugandan agricultural context in which this study is conducted.

Methods

In order to examine how stakeholders within the Ugandan agricultural value chain make sense of the concept of sustainable development and how this is embedded within their cognitive models, a qualitative inductive

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analysis was pursued. During the analysis aggregated prevalent patterns were detected in a series of in-depth interviews conducted among stakeholders involved. Drawing on the interview findings, a deep and holistic understanding was developed regarding the difference in how stakeholders make sense of sustainable development, illustrating the dynamics and complexity of these difference.

Research Context

The Ugandan agricultural value chain represents the backbone of Uganda's economy. In Uganda agriculture and agribusiness provides 73% of total employment, resulting in a percentage of 14% of Gross Domestic Product (GDP), and provides 85% of total export earnings (Worldbank, 2016). This implies that agricultural is of crucial importance to both the Ugandan economy and the overall livelihoods of a majority of the countries inhabitants. The Ugandan agricultural industry is characterized by a high diversity in crops due to the arability of the Ugandan landscape. The majority of stakeholders are involved in the production of commodities such as coffee, tea, rice, potatoes, oil seeds and dairy. Within the Ugandan agricultural value chain, a wide variety of stakeholders are involved ranging from local rural farmers to large multinational corporations. These stakeholders are composed of farmers, traders, cooperatives, processors, NGOs, government, universities and more.

Furthermore, the majority of crops that dominate are commodity crops such as coffee, cotton, tea and sugarcane. Agriculture has such a significant role within the Ugandan economy, since a majority of economic activity and its related industries in Uganda are highly depended on agricultural for raw materials. Many parties are seeing the potential in value-added export, such as palm oil and roasted coffee beans. Nevertheless, the agricultural sector is dominated by relatively small-scale processing plants which have limited access to capital restraining their ability to export and market their products on a global scale. In terms of export of agricultural products Uganda

has a vibrant cross-border level of export, primarily to South Sudan, Kenya and the Democratic Republic of Congo (DRC), were a number of challenges arise. One of the major challenges among stakeholders is to maintain the quality standards which are required in order to export crops. The value chain is characterized by poor quality standards, such as poor post-harvest handling and storage facilities which result from a lack of modern agricultural knowledge and capital availability. This creates a relatively unstable market with fluctuating prices often forcing local farmers to sell their product cheap. In addition to the lack of knowledge and capital, the Ugandan agriculture industry is also limited through its infrastructure which prohibits the rural farmers to commercialize their products. Even though the Ugandan economy is growing relatively steadily the growing population of the country, which goes hand in hand with increased scarcity of resources and pollution, lack of knowledge and infrastructure are posing as major barriers for the development of the country. Consequently, creating awareness and further implementing sustainable development is of significant importance for the future development of Uganda and the wellbeing of its population.

Research Design

In order to contribute significantly towards the existing literature and generate practical implications during this explorative study a qualitative approach is selected in order to identify patterns between constructs (Eriksson & Kovalainen, 2008). This qualitative inductive research design enables the research to obtain a more in-depth, rich and holistic understanding (Yin, 2003) of the constructs of sensemaking and cognitive models on the interpretation of sustainable development by stakeholders in the Ugandan agricultural value chain. This research creates a narrative of individual perspectives. Qualitative research distinguishes itself from quantitative in two significant ways. First, it employs the meanings of social actors in order to explain how they directly experience specific realities. Second, qualitative research uses verbal data and written texts as meaningful representations of

concepts (Gephart, 2004). Both arguments are especially interesting in the context of this research since they illustrate that qualitative research deals with meanings, which in this research can be translated into the meaning different stakeholders within the Ugandan agricultural value chain give through their cognitive models and sensemaking to sustainable development. In other words, which meanings do different stakeholders derive from the concept of sustainable development? This will be examined through conducting multiple interviews among stakeholders involved in the Ugandan agricultural value chain. Through interviewing all stakeholders, the interpretation of sustainable development through sensemaking and cognitive models can be mapped increasing the overall validity of the research.

Data Collection

The first stage of data collection involved a series of qualitative face-to-face interviews, which were conducted during a trip to Uganda between the 24th of March and the 18th of April 2016. In total a number of 17 face-to-face interviews were conducted among various stakeholders within the Ugandan agricultural value chain including farmers, traders, cooperatives, NGOs, governmental institutions and academics. The data was gathered using semi-structure interviews, which increased the comparability of the results, facilitates analysis, structures the data, enhances the overall completeness of the data, and reduces the interviewer effect (Patton, 2002). In addition, semi-structured interviews enable the interviewer to ask follow up questions, enhancing the overall completeness of the data collected (Patton, 2002). This enabled the research to obtain valuable in-depth knowledge regarding which meaning various stakeholders attach to the concept of sustainable development.

The interviews lasted between 20 and 60 minutes and, with consent of the interviewee, were recorded and transcribed. To ensure a certain degree of validity a total of 17 interviews were conducted, this in order to

obtain a significant amount of data enabling the research to generalize the results and thus increasing both the theoretical and practical value to this research. For an overview of all the participants please refer to Appendix I. The participants were accessed using the extensive local network of the research consortium ARGIQUEST which also facilitated a local guide/translator which assisted in obtaining the data. Additionally, the interview data was complemented by textual data collected during the three week stay in Uganda. These documents contained various reports, policies and field notes serving as additional data describing the context of the data collection process.

Data Analysis

The data is analyzed using a systematic narrative analysis of the transcribed interviews and notes (Cunliffe, Luhman, & Boje, 2004). This enabled me to identify relevant patterns and interesting contradictions within the data. Through using a reflexive pragmatic approach when conducting the interviews different theoretical ideas were tested using a framework regarding how to understand the various perspectives (Alvesson, Beyond Neopositivists, Romantics, and Localists: A Reflexive Approach to Interviews in Orgazational Research, 2003). Reflexivity enables me to analyze and understand the existing assumptions and reconsider what the data really means, and thus opening the way for a plurality of meanings (Alvesson & Deetz, Doing Critical Management Research, 2000). In the context of this research this can be translated to understanding the different meanings stakeholders attach to the concept of sustainable development. In order to substantiate the description of narratives retrieved from the data, we used open coding to validate emerging patterns relevant to answering the research question. This resulted in the following first and second order concepts, and subsequently the following aggregate dimension:

During this process both the research questions and relevant theory were taken into account. After having identified the relevant

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codes, confirmatory coding was used resulting in the development of the codebook (Appendix II). The identified codes and the developed codebook served as a basis for the comparison between the different meaning stakeholders attached to the concept of sustainable development. This analysis resulted in the synthesis, through which the findings, patterns contradictions identified were systematically reported. This enabled the research to conduct a comprehensive analysis of the data resulting in addressing the research question accordingly.

Findings

In this section we present the findings, which indicate how stakeholders within the Ugandan agricultural value chain make sense of sustainable development and how this is influenced by their cognitive models and perceptions of their environment and the world at large. These findings, found in the context of the Ugandan agricultural value chain, are indispensable to my paper since it enables the reader to gain a deep and holistic understanding regarding how sustainable development is perceived. The results are structured starting with the findings regarding the effects of cognitive models on the perception of sustainable development, followed by the findings regarding how stakeholders make sense of economic, social, and environmental sustainable development. The findings are illustrated by specific quotes from the data, through which the perception of sustainable development among local stakeholders is illustrated and becomes apparent.

Cognitive Models and Sensemaking of Sustainable Development

From the data collected can be derived what cognitive factors influence how stakeholders perceive of sustainable development. The data collected illustrate three concepts influencing the embedded perception in the cognitive models of stakeholders being experience, trust and legitimacy.

Experience and Cognition

The data clearly illustrates that previous experience and an individual's history has a compelling effect on the cognitive models of local stakeholders. Michael Kijjambu, owner of a coffee café, indicated this by stating:

“Still a lot of people have that donation and aid mindset. Social entrepreneurship is just starting but people have started embracing it”
Michael Kijjambu

This quote illustrates that local stakeholders developed a mindset that aid is normal, indicating the dependency on charity and donations. This dependency, created by decades of development aid, created and shaped the perception of sustainable development of stakeholders. Furthermore, the data indicates the important role cooperatives play in sustainable development, but that historical events and previous experiences of stakeholders create a significant lack of trusts, making it difficult for cooperatives to have an impact. Deus Nuwagaba, entrepreneurship services manager at NUCAFE, illustrates this by stating:

“We’ve had a bad history for cooperatives. Because the cooperatives model was the biggest challenge in the early 90s, when there was liberalization. What caused a very big setback, that farmers thought that the cooperatives stole their money” Deus Nuwagaba

This contradiction illustrates the important role of cooperatives in sustainable development, and the historic events, which had a strong effect on the trustworthiness of cooperatives, are interesting to note since it indicates that farmers are still relatively skeptical regarding the intentions of cooperatives when it comes to sustainable development.

Trust and Cognition

In line with experience is the concept of trust which plays a compelling role within developing a perception of sustainable development. Similar to experience, trust is something very fragile and can affect the cognitive models of stakeholders. The Ugandan economy and consequently the

agricultural value chain is characterized by its informal economy in which trusts plays a crucial role. This is illustrated by the coffee farmer Frederik Kawanga by stating:

“Yes, we have a good relationship because if they know you provide good quality and have enough coffee then of course they will have a relationship with you, friendship. In case your coffee is ready you can contact them and they come and buy it from you. You have that type of good relationship with them now. And they will give you a better price than a local man because of that relationship” Frederik Kawanga

This illustrates the value stakeholders attach to having a good relationship with their buyers. It indicates that having a good relationship has a positive effect on the economic sustainability of stakeholders. Nevertheless, particular perceptions and knowledge are so deeply embedded within the cognitive models of stakeholders that it is difficult to change it. This is illustrated by the afore mentioned Michael Kijjambu, owner of a coffee café, which states:

“They got trees which are forty or fifty years old. I think it is time to uproot them and replant but the farmers do not want it. Hence I think we still need to work on trust and some of their agricultural crop culture has to be changed” Michael Kijjambu

Furthermore, a problem occurs in the alignment of knowledge among organizations. The data shows that stakeholders, especially farmers, receive contradictory information from different organizations which often confused them. This is illustrated by Professor Zake by stating:

“I met a farmer that was puzzled because he had two organizations, one that was promoting organic, then the other company was promoting fertilizers, and the farmer was using both.” Professor Zake

These contradictory streams of information illustrate that some stakeholders are struggling regarding what they should do. Even though both organizations have their own incentives and perception regarding what is right it is crucial that the right information is provided in

order for stakeholders to develop in a sustainable way.

Legitimacy and Cognition

The way stakeholders perceive their environment is embedded in their cognitive models, and consequently legitimacy has to be gained in order to incorporate sustainable development in their cognitive models. The data indicates that physical demonstrations are necessary in order to gain this legitimacy regarding sustainable development. This is indicated by Apollo Segawa, managing director of Sesaco by stating:

“When the farmer sees it a lot and thinks okay they do this and it helps. Same with the irrigation technologies with the aspects of digging ditches for the rainwater. When they see that somebody is benefiting from it, then they think ah I should try this” Apollo Segawa

This perspective is shared by both Fred Tabalamule, who works for the Ministry of Agriculture, and James Kanyije, who is the managing director of KK foods. They state the following:

“We put down demonstrations and usually we put them close to the roads where people pass, and where people come and admire. When you look at maize in a climate smart way, and look at it the conventional way, and it becomes evident” Fred Tabalamule

“The main objective is to create jobs for our people because those markets sell too, and the local market is limited. If we try to sell at the local market, then how many matoke shall we sell on the road, how many shall be there, so I think this is the best way of doing business, in export” James Kanyije

Overall this indicates that in order to promote sustainable development in agriculture stakeholders have to be actively involved in real life demonstrations and have to convince stakeholders with physical examples of that it works. It indicates that there is still a lack of trusts and that the old way of doing things is embedded in their cognitive models creating to some extent a barrier for the interpretation and adoption of sustainable agricultural practices.

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Sensemaking of Economic Sustainability

Having addressed the effects of cognitive models on the perception of sustainable development, the three different dimensions of sustainability can be examined. From the data collected can be derived how local stakeholders perceive the economic dimension of sustainable development. The data collected illustrates that stakeholders perceive sustainable development primarily as something economic which involves increasing productivity, income and becoming self-sustaining. This is illustrated by Sarah L. Mubiru a senior advisor at the NGO SNV:

“People think about it in terms of economics. If you are talking to a scientist, then they also start thinking ok there is an ecological component as well. So well yeah it first goes to economics, at the moment you’ll talk to an average Ugandan that is what sustainable development means” Sarah L. Mubiru

This quote illustrates that the average Ugandan perceives sustainable development as being primarily economic, but the question that arises from that is what does economic sustainability entail? The data illustrates this by displaying three specific dimensions which fall into the category of economic sustainable development being enhanced productivity, income and becoming self-sustaining.

Enhanced Productivity

One of the factors identified in the data regarding economic sustainability is the enhancement of productivity among stakeholders in the Ugandan agricultural value chain. Several interviewees indicated that the enhancement of productivity is of crucial importance when it comes to sustainable development. That productivity needs to be increased in order to become economical sustainable is indicated by Professor Zake who stated:

“The average yield from the country presently is very, very low. Hence we have recommended to reduce the spacing between plants. When we tried that, we found that the yield per tree doesn’t decrease much” Professor Zake

With this quote Professor Zake clearly indicates that productivity is relatively low in Uganda, but it also illustrates what is part of this problem: a lack of awareness and knowledge how to efficiently farm crops. Professor Zake confirms this by stating:

“Commercial means a way to increase the productivity, then regularity: ‘how do you produce regularly’, and thirdly how do you maintain the quality? The way farmers are paid, is based on quality” Professor Zake

This indicates that part of the reason for low productivity is a lack of knowledge regarding both the quality of products and the inability of farmers to produce on a regular basis. Within particular value chains, such as coffee, stakeholders are actively involved in enhancing the productivity of farmers through sharing knowledge and providing funds. This is shown by Arthur Wasukira, a researcher National Agriculture Research Organization (NARO), who states:

“We are looking at improving the yields of coffee and that will result in an increase of income, through introducing storage systems and introduced temperate fruits which break the wind” Arthur Wasukira

This illustrates that within the Ugandan agricultural value chain knowledge regarding efficient farming is present to some degree, but is momentarily only implemented in the value chains of commodities such as coffee. This indicates that increasing productivity across multiple value chains, and consequently reaching the majority of the widely spread farmer population in rural areas is still a notable challenge.

Enhanced Income

Continuing on the interpretation of economic sustainability, enhanced income, which is in line with enhanced productivity, is identified as an important pillar in economic sustainability. Through enhanced productivity stakeholders can consequently increase their income, not only by having more products to sell, but also through increased commercialization and adding value to their products. Within the coffee value chain this is promoted by the

introduction of the farmer ownership model by NUCAFE. Deus Nuwagaba, an entrepreneurship services manager at NUCAFE, illustrates this by stating:

“With the farmer ownership model we enable the farmers to keep being the owner of their coffee along the value chain, for consumer satisfaction, and societal transformation. So that they are able to participate in those higher level nodes and levels of the VC” Deus Nuwagaba

Managing director of CURAD Apollo Segawa confirms the important role of the farmer ownership model for income enhancement by stating:

“An innovative model called the farmer ownership model. This one encourages the farmer to own their crop, value add and export or trade locally. Thereby enhancing the income of these farmers” Apollo Segawa

Both quotes illustrate that cooperatives in the coffee industry are actively involved in increasing income and the overall livelihoods of stakeholders. This shows that cooperatives play an important role, but far from all farmers are member of cooperatives. This combined with the fact that cooperatives are primarily active in commodity crops indicates that there is still a limited reach in connecting to farmers. Nevertheless, the data shows that those who are involved in cooperatives are being educated. Furthermore, the data indicates that stakeholders within the value chain have a different perception of what economic sustainability entails. According to the managing director of Sesaco, a soy based processing company, Charles Nsubuga:

“The company contributes to achieving the Ugandan national development program in the following ways: Being a processing companies, increasing markets for cereal and crops, contribute to country GDP and tax base and provide intern school studies for schools learning for agro business at Sesaco” Charles Nsubuga

This quote clearly reflects an important contradiction towards how sustainable development is perceived across cultures. In

western society it is implicit that you pay taxes and that you contribute towards society, but in the Ugandan landscape this is perceived as being sustainable. The fact that Charles Nsubuga argues that providing employment and paying taxes is being sustainable clearly illustrates the differences in knowing what sustainability entails.

Becoming Self-sustaining

The third and final pattern identified in terms of economic sustainability is the concept of becoming self-sustaining which is in line with the previous two dimensions of enhanced productivity and income. Becoming self-sustaining illustrates more a less the core of economic sustainability within the context of the Ugandan agricultural value chain. Since many stakeholders in the lower levels of the value chain are struggling to survive, they have the primary goal of becoming self-sustaining, consequently being able to provide for their family and relying less on other parties. This is illustrated by Mutwalibi Galugali, a rural farmer, who stated:

“I have learned that when I use too much land for commercial purposes I will reduce my level of food security because I can produce less. For example, when I want to produce a cassava over here, I cannot plant trees here. I only look at food security and income” Mutwalibi Galugali

This quote illustrates that stakeholders in the lower level of the value chain take in consideration the level of food security in their decisions. It illustrates the trade-off farmers make between food security and enhanced income. As becomes apparent from the collected data the concepts of enhanced productivity, income and becoming self-sustaining intertwined and together create the perception of economic sustainability in the minds of stakeholders. Fred Tabalamule, a civil servant at the Ministry of Agriculture, illustrates this by stating:

“Land productivity, when it is enhanced you get more benefits, and to generate more income, since then they can instead of only sustaining themselves and when they have enough food

at home they can sell the food which is surplus and thus generate income, enabling them to go to health clinics, get your kids into school”
Fred Tabalamule

This indicates the sequence of the three concepts which are identified within the data and which together generate the definition which stakeholders within the value chain give to economic sustainability. Nevertheless, there is still a lack of knowledge among the majority of lower level stakeholders, such as farmers, in how make this sequence of economic sustainability work.

Sensemaking of Social Sustainability

In terms of the social dimension of sustainable development the data shows, in contrast to the economic dimension, a less elaborate pattern. The three concepts identified in the data regarding social sustainability were stakeholder involvement, equality and community based training.

Stakeholder involvement

The first concept identified in the data regarding social sustainability is the urge of stakeholders to actively involve other actors in the process of sustainable development. The data shows that the first step in the increased involvement of stakeholders is the acknowledgement of the value stakeholders have within the value chain. James Ssemwanga, managing director of Sswemwanga Agriculture Center, illustrates this by stating:

“He is playing a different role within the community next to just producing food. He is the first person to report a hole in the road ... It helps them when you tell them what sustainability is so that they feel included. If you fail to mention that they start to think this is not important for me” James Ssemwanga

This quote illustrates that stakeholders in the lower levels of the value chain play a more significant role than merely producing food. In addition, they play an important role in the community of rural areas, they have the ability and responsibility to act as ambassadors for the local community in these areas. Nevertheless, the awareness of this role

among stakeholders is very scarce and thus only a fraction of the actors really perceive stakeholder involvement as a part of social sustainable development.

Equality of Stakeholders

In line with the concept of stakeholder involvement is the equality of stakeholders which is identified in the data. The data indicates that there is, similar to the the concept of stakeholder involvement, a lack of awareness and acknowledgement regarding the value of stakeholders. This is indicated by James Ssemwanga by stating:

“The farmer you find in rural Africa probably thinks that all he does is to produce food, and if he knew that if fact he was doing far more then that he would probably put his foot down for a bit more decent treatment” James Ssemwanga

Furthermore, civil servant at the Ministry of Agriculture Fred Tabalamule indicates that this lack of awareness regarding value results in the fact that in certain situations stakeholders are taken advantage of:

“They are trying to eliminate the middle men, when usually when there is a middle man, the farmer doesn’t get anything” Fred Tabalamule

These quotes illustrate this lack of awareness, in a similar fashion like stakeholder involvement, regarding their value in the community and the value chain at large. This results in that stakeholders in the lower levels of the value chain are being poorly treated and taken advantage of.

Community based Training

Even though there is still a lack in terms of awareness regarding stakeholder involvement and equality many stakeholders have the urge to further develop communities. The data shows that stakeholders who have this urge focus on the development of communities through philosophy of the Training of Trainers’ within communities. Michael Kijjambu, owner of a coffee café, illustrates this by stating:

“And we got a saying: If you train one, you train a nation. That is one of our objectives. And I think it is sustainable, you empower

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them and they learn social skills as a vehicle and I think that is sustainable” Michael Kijjambu

This quote clearly illustrates this philosophy, but the question is what is the incentive behind it. Is it purely to help the overall community or is it something different? Where it seems that there is evidence that sustainability is perceived as having social values, the data sheds a different light on this perspective. James Ssemwanga, managing director of Sswemwanga Agriculture Center, illustrates this by stating:

“I think that all of them, even if it appears to be social, there is an economic argument behind it” James Ssemwanga

This quote indicates clearly that even though the ideas and actions seem to develop the community at large, they are still driven by the motivation of increasing economic benefits such as enhanced productivity and income. Consequently, the data shows social values in terms of sustainability, but the underlying reasons for these values are economically driven.

Sensemaking of Environmental Sustainability

In terms of sensemaking of the environmental dimension of sustainable development two categories occur in the data being the awareness and acknowledgement of climate change and the adoption of agro-friendly practices to preserve the environment.

Awareness of Climate Change

The first step in determining how stakeholders make sense of environmental sustainability is to assess whether any awareness exists regarding climate change. The level of awareness is illustrated by managing director of CURAD, Apollo Segawa:

“For example, from January till March, there was the rain season, and farmers were supposed to plant in this season, but now it is all delayed. The farmers actually don’t know much about the climate change” Apollo Segawa

This quote illustrates that there is a shift in seasons, and argues that stakeholders in the lower levels of the value chain are not aware of this. Nevertheless, the rural farmer Frederik Kawanga illustrates that stakeholders across the value chain are well aware of the changes in the climate, but they do not know why these changes are occurring:

“When it rains to much, the coffee can get ready but you cannot dry it. When there is too much sun the berries will ripen before they are mature and the coffee becomes of poor quality. There is no solution for that, it is natural” Frederik Kawanga

Overall this indicates that stakeholders across the value chain acknowledge that there are some changes in the climate, but also illustrates that there is a lack of knowledge regarding the causes and how to resolve it.

Agro-friendly Practices

Next to showing awareness regarding climate change among stakeholders, the data indicates that sharing of knowledge and actions are taken in order to counter climate change, showing potential for environmental sustainability. Professor Zake illustrates this by stating:

“One of the techniques we have been researching is the shading of the different crops. Because it can conserve the temperature. Water harvesting is also something that we want to encourage., through digging trenches” Professor Zake

This indicates that stakeholders are actively involved in providing agro-friendly practices to counter climate change. Nevertheless, the data also indicates that these practices often are motivated by economic incentives and not primarily focused on addressing climate change itself. This is indicated by entrepreneur services manager at NUCAFE Deus Nuwagaba:

“We have had under the good agricultural practices, the promotion of the climate smart agricultural practices. But, now the provision of these climate smart agricultural practices is

*paid by the farmers for marketing purposes”
Deus Nuwagaba*

Showing that the practices are not intended for countering climate change, but more for marketing purposes. In addition, there is an existing perception among stakeholders that being a farmer is environmentally sustainable which is illustrated by Professor Zake:

“So really coffee and banana, these two crops, are really positively contributing to alleviating global warming. And obviously ways to increase yields can result in an alleviation of the problem. The bigger the yield, the more carbon you extract” Professor Zake

This indicates that merely being a farmer makes you environmental sustainable, since you are reducing the carbon dioxide footprint. This contradicts the idea of farming being actually bad for the environment since it contributes to the deforestation of the planet, consequently destroying the habitat of both flora and fauna and increasing the level of carbon dioxide footprint. This indicates that there are different angles on which the environmental changes of our planet are perceived.

Discussion

This section shows both the theoretical and the practical implications of the findings, including a new proposed process model of stakeholder sensemaking of sustainable development. Subsequently, the limitations and avenues for future research are given.

Theoretical Implications

During the in-depth analysis of the findings various interesting theoretical implications became apparent. The most interesting finding is that the process of interpreting sustainable development is continuously influenced by both cognition and sensemaking resulting in the fact that individuals put an emphasis on the economic pillar of sustainable development.

Whereas previous research (e.g. Basu & Palazzo, 2008) illustrate the process the managerial sensemaking primarily as a linear process, we argue that this process is more

cyclical and that both the previously held assumptions, which are embedded in the mental models of stakeholders, and sensemaking have a notable impact on how sustainability is perceived. Therefore, we propose a new model of sensemaking of sustainable development shown in Figure 3 (see appendix).

The model we propose shows the more cyclical process of how stakeholders make sense of sustainable development. It is focused, in contrast to Basu & Palazzo which focuses on a managerial perspective, on how stakeholders make sense of sustainability and shows how cognitive models and sensemaking continuously influences the perception of sustainable development. Important factors that play a role in how sustainable development is embedded in the mental models of stakeholders are experience, trust and legitimacy. This illustrates an interesting difference with the insights Basu & Palazzo which argue that the cognitive dimension of the sensemaking process consists out of legitimacy and identify orientation. In contrast to this we argue that in the context of the Ugandan agricultural value chain the factors of experience and trust play a more notable role than identify orientation when it comes to the sensemaking process of sustainable development. Thereby, not extending, but remodeling the model of the cognitive dimension proposed by Basu & Palazzo putting more emphasis on personal experience and trust in the sensemaking process.

Furthermore, as previous theory (e.g. Griggs, 2013) indicates that sustainability is a nested concept consisting out of economic, environmental and social values, it shows a misalignment of what sustainable development entails and how the United Nations aims to proclaim sustainable development. Since theory regarding the nested concept of sustainable development entails that society depends on the environment, and that the economy depends on society, it is interesting to note that findings show a predominant pattern of economic sustainability. Moreover, the key issue of sustainable development, and

the perception of it being a nested concept, is the degree of integration between the economic, social and environmental pillars. With the findings of this study we argue that stakeholders in the Ugandan agricultural value chain perceive sustainable development, not as a nested concept, but merely as an economic concept.

Even though the findings indicate that stakeholders are familiar with the values of environmental and social sustainable development, the findings also show that these are often based on economic incentives instead of purely being social and environmental motives for sustainable development. To illustrate, the findings indicate a relatively high level of awareness regarding climate change, which is translated by the majority of stakeholders to creating barriers to the efficient production without considering and showing awareness regarding the implications these changes have for the overall well-being of the planet. This shows that stakeholders prioritize thinking on the short-term, which can be explained by their perception of being sustainable when having the ability to survive. Nevertheless, the findings show a notable difference in how stakeholders across the value chain make sense of sustainable development suggesting that the level of education has a notable effect on the understanding of sustainability.

This conceptualization of sustainable development, based on economic incentives on the short term, illustrates the misalignment of how sustainability is defined within the literature and how it is interpreted by stakeholders through policies such as the SDGs of the UN. As the concept of sustainable development is aimed at the long term it is imminent that awareness is created among these stakeholders regarding the question “What it is that we need to do, not just to survive, but to thrive, and not just one year, three years, or five years from now, but in ten years, twenty years, and beyond?” (Carter & Easton, 2011). This short term perception of sustainable development is the results of both the sensemaking process of stakeholders and

their cognitive models. As indicated by previous theory sensemaking and cognitive models both contribute to how individuals perceive their direct environment and the world at large, thus consequently also how they perceive sustainable development.

This misalignment and misunderstanding by stakeholders, especially in bottom of the Ugandan agricultural value chain, is caused by the lack of knowledge among lower level stakeholders and illustrates the importance of creating awareness through education. Especially in the light of the exponential growth in population, in which 95 percent of future population growth will occur in less developed countries (World bank, 2016) resulting in scarcity of resources, and the increased pollution of the environment, illustrates the relevance of the findings of this study regarding the misalignment between sustainable development policies and the actual implementation of such strategies. Overall, this contributes to the existing literature by showing how sustainable development, as manifested by the UN, is made sense of by stakeholders in the Ugandan agricultural value chain. In addition, it illustrates that in practice there is a lack of understanding and integration regarding the three pillars of sustainable development, indicating that stakeholders put an emphasis on economic sustainability which is related to increasing productivity, income and becoming self-sustaining, consequently answering the research question of this study. It illustrates an interesting tension, which is relatively unaddressed within the literature, regarding the effectiveness of long term sustainable development policies and the short term sensemaking of these policies by local stakeholders.

Practical Implications

From a more practical perspective, this study provides a guide for developing more effective policies and consequently providing an avenue for better implementation of sustainable development. Through mapping the landscape of sustainability in the Ugandan agricultural value chain we enable practitioners to identify

both the level of awareness and the major barriers, such as corruption and lack of infrastructure, concerning the interpretation and implementation of sustainability. Whereas developing sustainability strategies is often an important challenge, implementation poses often as the larger challenge (Epstein, 2009). Besides enabling the development of more tailored sustainable development policies for the East African agricultural industry it becomes apparent from this study that there is a lack of leadership in implementation. This lack of leadership provides stakeholders and practitioners with an opportunity within the value chain to become an industry leader in terms of sustainable development, reaping the benefits in the long-term.

Since the key to successful long term implementation of sustainable development strategies and policies of the UN is leadership it is crucial for practitioners to be committed to the implementation of sustainable development strategies and policies. This through investing both time and capital in creating awareness on sustainability across the value chain. In the long term this will have a significant effect on both the well-being of the economy, society, and the environment. Overall, with this study we contribute to a better understanding among practitioners regarding the awareness of local stakeholders regarding sustainable development. This enhanced understanding is believed to be the starting point for both the development as well as the implementation of any sustainable development policy or strategy.

Limitations

As this study examined the interpretation of sustainable development through the lens of sensemaking and cognitive models in the context of the Ugandan agricultural value chain several limitations came into play. First, the decision of such a case specific study regarding the Ugandan agricultural value chain has some implications. With regard to drawing conclusions from the collected data, generalizability is relatively limited. This is

partly explained, by the relatively small sample size due to the limited amount of time being able to collect data in Uganda, as well as the willingness and availability of respondents to answer questions. Consequently, this study is biased by number of respondents limiting its reliability.

Avenues for Future Research

First, as we have indicated in this study a notable difference is present in the way sustainable development is perceived, such as that paying taxes and offering employment is considered sustainable. Consequently, differences regarding what things are implicit and explicit in particular cultures became apparent. Consequently, an avenue for future research would be to further examine and map the crucial difference between the interpretation of sustainable development on western cultures and cultures in East Africa. Through doing so, a better understanding can be generated in what is implicit and explicit, when it comes to sustainable development.

Secondly, from a leadership theory perspective it might be interesting to examine and asses the effectiveness of sustainable development policies and strategies in the East African region. This in order to examine the effects of variables such as power and experience on the performance of implementing sustainable development policies resulting in a more holistic and deeper understanding of what relates to the successful implementation and management of sustainability.

Thirdly, from a more practical perspective, it could be interesting to do a reproduction of this study in a longitudinal fashion in order to examine on a larger scale the different interpretations of sustainable development. Additionally, taken into account factors such as cultural differences and level of education, in order to fully understand the impact of such factors in understanding the concept of sustainability.

Conclusion

In conclusion this study provides a more holistic and in-depth overview of how the concept of sustainable development is interpreted across the Ugandan agricultural value chain. Through examining this through a lens of sensemaking and cognition we were able to propose a new cyclical process model in which both sensemaking and mental models have a continuous influence on stakeholder sensemaking of sustainability. As a result, this study shows, that in contrast to how sustainable development is defined in the literature, that sustainability in the context of the Ugandan agricultural value chain is primarily seen as being economically driven. Indicating that it is not seen as a nested concept between the three dimensions of sustainable development. Overall, this illustrates the growing need for the development and implementation of effective sustainable development policies, in order to change the way stakeholders in the Ugandan agricultural value chain make sense of sustainable development.

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APPENDICES

Figure 2: Overview Codes and Aggregate Dimension

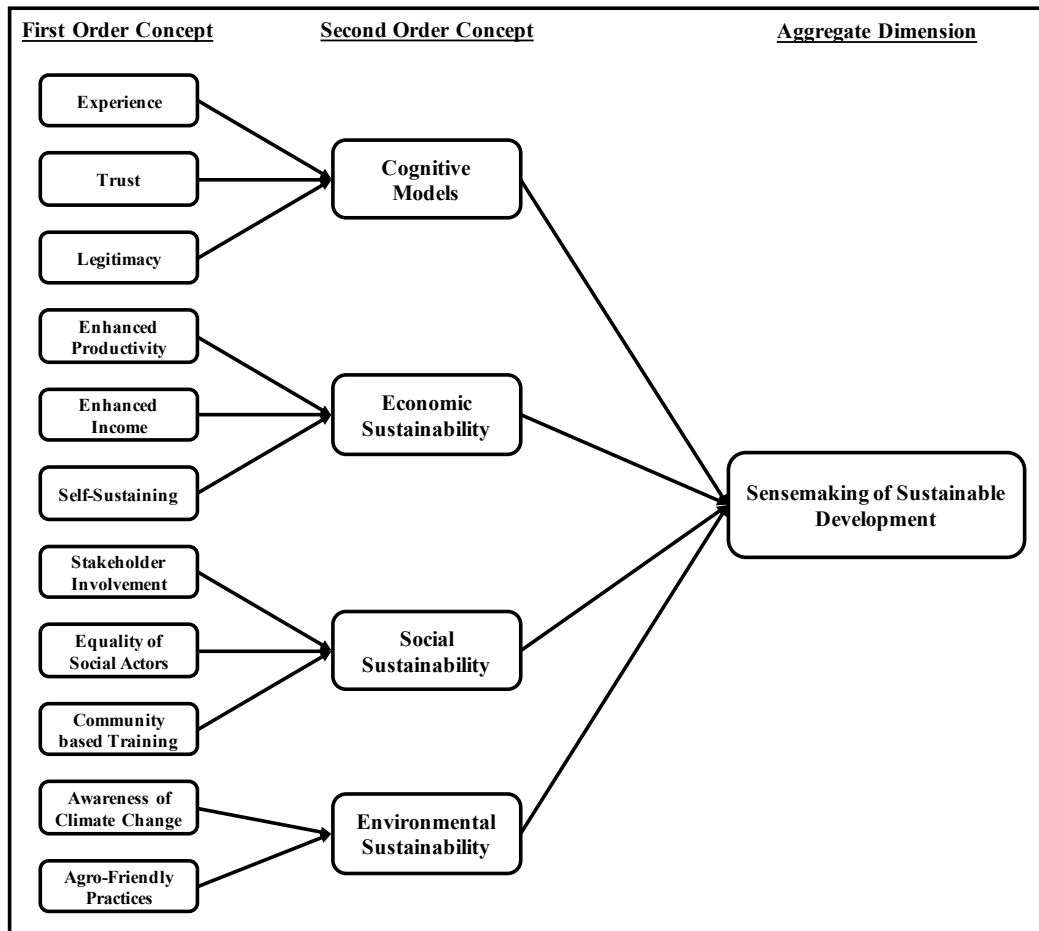
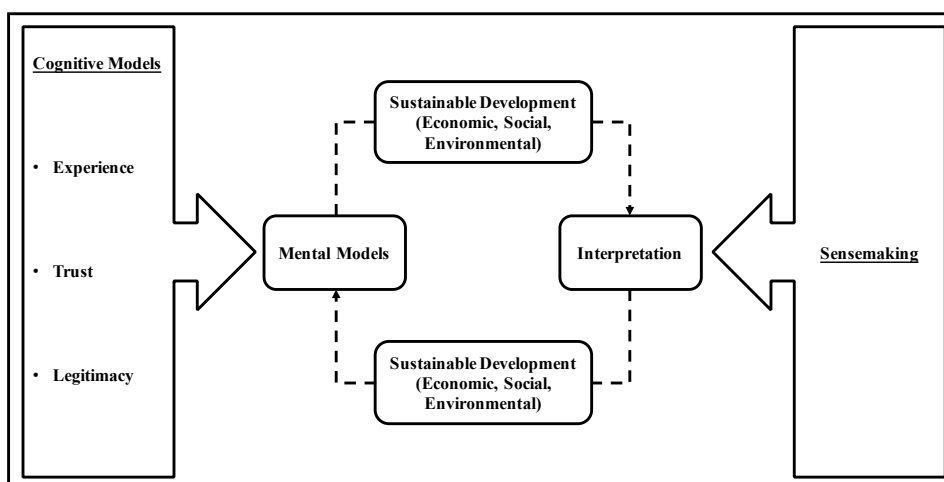


Figure 3: The Cyclical Model for Stakeholder Sensemaking of Sustainable Development



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Appendix I: Overview Participants

Table 1: Overview Participants

Participant	Position
James Ssemwanga	Managing Director Ssemwanga Agriculture Center
Seguya Yassin	Coffee Trader
Hans Peter van der Woude	Head Economic Department at Dutch Embassy
Professor Y.K. Zake	Professor Makerere University
Deus Nuwagaba	Entrepreneurship Services Manager NUCAFE
Michael Kijjambu	Owner Café a 1000 Cups
Fred Tabalamule	Ministry of Agriculture – ATAAS Project
Arthur Wasukira	Researcher at NARO
Sarah L. Mubiru	Senior Advisor SNV
Nathan Mabonga	Production Officer
Andrew Wamimbi	Assistant Agricultural Officer at Mbale District
Frederik Kawanga	Rural Farmer
Moses Makaka	Director Bugiri Marketing Center
Mutwalibi Galugali	Rural Farmer
Charles Nsubuga	Managing Director Sesaco
Apollo Segawa	Managing Director CURAD
James Kanyije	Managing Director KK Foods

Appendix II: Codebook

Table 2: Codebook

Second Order Concept	First Order Concept	Definition	Exemplary Quote
Economic Sustainability	Enhanced Productivity	Improving yield and efficiency of farming	<i>“The average yield from the country presently is very, very low. Hence we have recommended is to reduce the spacing between plants. Now, we have tried 8 feet of spacing and that increased the number by about 500. When we tried that, we found that the yield per tree doesn’t decrease much” Professor Zake</i>
	Enhanced Income	Process of adding value to produced crops generating more income	<i>“Reflecting the successes of the application of investment subsidies in the past, targeted development aid should continue to be utilized to initially support commercial activities with diplomacy geared towards economic cooperation” Hans Peter van der Woude</i> <i>“With the farmer ownership model we enable the farmers to keep being the owner of their coffee along the value chain, for consumer satisfaction, and societal transformation. So that they are able to participate in those higher level nodes and levels of the VC” Deus Nuwagaba</i>
	Self-sustaining	Produce enough to sustain family	<i>“We are trying to promote is to ensure that we bring practices that the farmers with small pieces of land to produce just like someone with a bigger piece of land” Fred Tabalamule</i> <i>“We promote land productivity, when it is enhanced you get more benefits, and to generate more income, since then they can instead of only sustaining themselves and when they have enough food at home they can sell the food which is surplus and thus generate</i>

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			<i>income, enabling them to go to health clinics, get your kids into school” Fred Tabalamule</i>
Social Sustainability	Stakeholder Involvement	Position of stakeholders within the community	<p><i>“He is playing a different roll within the community next to just producing food. He is the first person to report a whole in the road” James Ssemwanga</i></p> <p><i>“They don’t reinvest back; I have seen that they can reinvest by building factories. They give them a factory and say: “now you can process your own coffee here, at a cheaper rate.” But for things like schools or hospitals, no” Seguya Yassin</i></p>
	Equality of Social Actors	Fair treatment of stakeholders within the value chain	<p><i>“The farmer you find in rural Africa probably thinks that all he does is to produce food, and if he knew that if fact he was doing far more then that he would probably put his foot down for a bit more decent treatment” James Ssemwanga</i></p> <p><i>“they are trying to eliminate the middle men, when usually when there is a middle man, the farmer doesn’t get anything.” Fred Tabalamule</i></p>
	Community based Training	Sharing of practices within communities	<p><i>“We have the farmers training and education; this is number one to build capacity. It helps the farmers to really know the requirements of the certifications that they are going to participate in” Deus Nuwagaba</i></p> <p><i>“We train trainers of trainers. This is entails that we select an individual an we train extension workers, but there is a time we go to the groups, and they go back to the community and they train other members of that community in practices and technologies and also provide knowledge regarding climate control and changes” Fred Tabalamule</i></p>
Environmental Sustainability	Awareness of Climate Change	Changes are affecting the quality of crops	<i>“So that first of all affects the price; it affects the market because most of the people don’t need such coffee” Seguya Yassin</i>
	Agro-friendly Techniques	Techniques to counter climate change effects	<p><i>“One of the techniques we have been researching is the shading of the differnt crops. Because it can conserve the temperature” Professor Zake</i></p> <p><i>“We have had under the good agricultural practices, the promotion of the climate smart agricultural practices. In spite of the services we are providing, we wanted to promote that the farmers had good climate smart agricultural practices. But, now the provision of these climate smart agricultural practices is paid by the farmers for marketing purposes” Deus Nuwagaba</i></p>
Cognitive Models	Experience	Historic events affected the way	<p><i>“So the majority of our farmers are inclined to farm organically because that is where the NGOs are focused on. The majority of our farmers have been convinced that their fertilizers are bad, they actually have” Professor Zake</i></p> <p><i>“We’ve had a bad history for cooperatives. Because the cooperatives model is what was the biggest challenge in the early 90s, when there was liberalization. What caused a very big set-back, that farmers thought that the cooperatives stole their money” Deus Nuwagaba</i></p>
	Trust	Level of trusts within Uganda’s informal economy	<p><i>“I think we still work on trust. There is still that kind of trust. If I tell you this coffee is organic than everybody knows it organic if you go, ask the farmer who produced it” Michael Kijjambu</i></p> <p><i>“Yes, we have a good relationship because if they know you provide good quality and have enough coffee then of course they will have a relationship with you, friendship. You have that type of good relationship with them now. And they will give you a better price than a local man because of that relationship” Frederik Kawanga</i></p>
	Legitimacy	The level of acceptance of practices and policies by stakeholders	<i>“We put down demonstrations and usually we put them close to the roads where people pass, and where people come and admire. When you look at maize in a climate smart way, and look at it the conventional way, and it becomes evident” Fred Tabalamule</i>

Table 3: Code Count

Second Order Concept	First Order Concept	#Instances
Economic Sustainability	Enhanced Productivity	8
	Enhanced Income	11
	Self-Sustaining	6
Social Sustainability	Stakeholder Involvement	6
	Equality of Social Actors	4
	Community based Training	5
Environmental Sustainability	Awareness of Climate Change	9
	Agro-Friendly Practices	8
Cognitive Models	Experience	4
	Trust	3
	Legitimacy	3

Appendix III: Interview Protocol

Introduction

1. Before starting this interview do you have any questions regarding this?
2. Would you be so kind to briefly introduce yourself?

Agricultural Value Chain

3. How does the agricultural value chain look like in Uganda?
4. Which stakeholders are involved in the agricultural value chain in Uganda?

Sustainable Development

5. What do you think about the idea of sustainable development?
6. What do know about the concept of sustainable development?
7. Have you heard of the Sustainable Development Goals? (Yes: ask what they mean, no: explain them and ask what they think about it)
8. How do you think agricultural affects the planets ecosystem?
9. Do you think being sustainable is important and why?
10. To what extend is sustainable development embedded in the Ugandan agricultural value chain?

Implementation of Sustainable Development (Capita Selecta)

11. To what extent do you think sustainable development is important?
12. Who should be responsible for maintaining a sustainable ecosystem?
13. To what extent would you be willing to adapt your behavior in order to increase sustainability?

Closing Questions

14. Would you like to add something, based on the questions that we discussed during this interview?
15. Do you have an additional remarks regarding the questions, which you think that we did not discuss, but which are relevant?