

Craft brewery leaders for transformation towards sustainability?

A case study of transformative qualities, and hindering or enabling factors for action in craft brewery leaders in Sweden and Germany.

Annika Drube

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Lund University Centre for
Sustainability Studies



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Abstract

The internal dimension of an individual is a potential deep leverage point for a collective change toward sustainability that is currently overlooked. Especially in their professional context, certain individuals can create change beyond themselves and the enterprise subjected to them. The environment of individuals, however, influences the activated potential of individuals for contributing to this change. This thesis analyses the brewery leaders' internal qualities to transform towards sustainability on an individual and collective level. Four cases of craft brewery leaders in Germany and Sweden were studied through participant observation in a workshop with craft beverage producers, focus groups and documentation on an online whiteboard. The first part of the study is looking for indicators of transformative qualities for change toward sustainability focusing on the individual's professional role. The second part looks at hindering and enabling factors for actions upon these qualities. The transformative qualities were indicated to different extents. The main difference between the cases was the readiness and commitment to use their small enterprise as a way to contribute to collective change. Immaturity and lack of enabling environments were the main hindering factors. Networks with peers, consumers and academia were suggested as enabling factors.

Keywords:

transformative qualities, leadership, inner transformation, small and medium-sized enterprise, craft brewing, environmental entrepreneurship

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List of Abbreviations

RQ	Research question
SIBLINGS	Sustainability Learning Network for craft beverage producers in Germany & Sweden
SME	Small- and medium-sized enterprise
TQ	Transformative quality

1 Introduction

1.1 Problem framing

Sustainability science is problem-driven (Miller, 2012) and solution-oriented (Miller, 2012; Spangenberg, 2011; Wiek & Lang, 2016), transdisciplinary (e.g. Funtowicz & Ravetz, 1993; Lang et al., 2012), participatory (Spangenberg, 2011), and acknowledges the wickedness of problems (Kates et al., 2001; Rokaya et al., 2017). According to Kates and colleagues, sustainability science “seeks to understand the fundamental character of interactions between nature and society” (Kates et al., 2001). With sustainability science further developing, participatory processes and transdisciplinarity have become more common research practices (Rokaya et al., 2017). The evolving transformative research can be distinguished from the descriptive-analytical stream (Wiek & Lang, 2016). However, is this contributing enough to solving the challenges at present and ahead of us?

In both streams, research on personal dimensions and internal drivers of change have not been given enough focus (Ives et al., 2020; Leichenko & O’Brien, 2020; Wamsler et al., 2020), despite indicators that active change agents play a key role in driving this transformation (O’Brien & Sygna, 2013). Inner transformation research is one approach to explain what motivates these active change agents to do this. It looks at the individual and its inner dimension with the goal of connecting and relating it to the external dimensions, and thus studies the individual’s potential to transform systems through inner transformation (e.g. Horcea-Milcu et al., 2019; Wamsler et al., 2020; Woiwode et al., 2021). In recent years, the publications on the topic have increased (Wamsler et al., 2021).

There is an increasing number of publications and a growing interest in this research space as is indicated by several initiatives and projects, for example the Contemplative Sustainable Futures Program at LUCSUS that encourages and enables research, networks and education in the field of inner transformation (Contemplative Sustainable Futures, n.d.). ActivateChange, MindShift, Mind4Change and TransVision (Transition Visions, n.d.) are examples of major recent research projects that create new knowledge and insight in the field. An example of a transdisciplinary initiative is the Inner Development Goals (n.d.), which is a non-profit organization whose central thesis is that inner capacity is insufficient when dealing with complex challenges pertaining to the environment. However, there are many research gaps that need to be further studied.

When change agents put transformative qualities into action in their professional environments, they can have a significant impact, not only on the individual but also on the collective and systems level,

potentially even more than in their personal environment (Wamsler et al., 2021). The potential leverage of inner transformation in a professional environment has not been researched yet, even though it is a deep leverage point for change in systems, e.g. through actions of value-based organizations (Wamsler et al., 2021; Woiwode, 2021). This study aims to investigate the inside and outside dimensions of business leaders as individuals in the craft brewing industry in Germany and Sweden through exemplifying case studies of four brewery leaders.

1.2 Research questions

I want to answer the following two questions in this thesis:

RQ1. How are transformative qualities of brewery leaders visible in their role as business leaders?

Looking into the inner dimension of an individual includes, according to Wamsler et al. (2021), transformative qualities. These qualities are a potential root for internal and external change. Therefore, I want to understand how they are indicated in the cases.

RQ2. How are the craft brewery leaders hindered or enabled to act upon the transformative qualities?

Certain elements might hinder or enable the individuals to put the transformative qualities into action. I want to understand what these aspects are and how they either positively or negatively influence the actions of the brewery leaders, especially if they indicated transformative qualities.

1.3 Outline of the thesis

Following this introduction, chapter 2 gives an overview of sustainability aspects in small and medium-sized companies (SMEs) and the craft brewing industry, and introduces the cases briefly. Chapter 3 introduces to the emerging field of inner transformation and the heuristic applied in the thesis. It is followed by chapter 4, presenting the methodology, including the application of the theory, the research design and a presentation of the methods used in this thesis. Chapter 5 will present the analysis and the results to answer the two research questions together with chapter 6, which further structures and interprets the findings from the analysis of the cases by comparing the results with existing literature. Also, in the discussion chapter, it is reflected on the chosen theoretical entry point and the conduction of the thesis. Chapter 7 provides a conclusion.

2 Background

2.1 Sustainability in small and medium-sized companies

SMEs comprise a majority of all businesses (Quintas et al., 2018). It is therefore particularly important to look into business leaders of these companies as they have a great potential to bring about change towards sustainability (Quintas et al., 2018, Revell et al., 2010).

Cassells and Lewis (2011) describe, however, that SMEs are often seen as unwilling and uninspired when it comes to pro-environmental changes. According to these researchers, there is a consensus that SMEs are lacking engagement, resulting from management and resource issues, and a focus on the core business. Redmond and Walker (2009) found, also, that the environmental education that is available for small businesses is limited. This does however, not represent the personal attitude of SME leaders (Cassells & Lewis, 2011).

Jansson and colleagues (2015), on the other hand, conducted a study in which a majority of participating SMEs found sustainability to be a core topic and felt responsible to **act** sustainably. Also, the study shows a strong relationship between sustainability commitment and sustainability practices (Jansson et al., 2015), while Cassells and Lewis (2011) found that SMEs attempts to act sustainably did not have a big impact. Caused by the small company size, the power over strategic business decisions is many times bundled under one leader or owner. These individuals, thus, influence the companies' strategy and culture significantly (Jansson et al., 2015).

Studies exist that discuss different approaches to improve SMEs' sustainability impact based on their leaders' commitment and internal capacities. For example, Jansson and colleagues (2015) conclude in their study that SMEs that voluntarily work on sustainability issues can draw benefits from the market position they take. Proactivity is a key quality also included in the internal dimension of leaders (Jansson et al., 2015; Sharma, 2017; Wamsler et al., 2020). Revell and colleagues (2010) describe how new business opportunities and potential of efficiency improvements is one main driver for sustainability investments.

2.2 Sustainability and craft beer industry

Brewing of beer is facing several environmental challenges as beer brewing is energy and water intensive, produces solid waste as well, and has specific challenges on the social dimension of sustainability (Hoalst-Pullen et al., 2014). Regional craft breweries play an important role in a

sustainable transformation of the industry, as they show big efforts in improving sustainability (Hoalst-Pullen et al., 2014; Ness, 2018).

In their study, Hoalst-Pullen and colleagues (2014) found that many craft brewers in the US take different measures to become more sustainable in their operations. Regarding environmental sustainability, one example measure is tracking the carbon footprint and measures to reduce water and energy use. Social sustainability is highly considered in the US craft beer industry, both in adoption and importance (Hoalst-Pullen et al., 2014), for instance by focusing on social equity in the workplace and engagement in local community building (Hoalst-Pullen et al., 2014). Ness (2018) found in his analysis of 70 craft beer breweries that a strong focus on sustainability is often on being an active and positive community member (Ness, 2018). However, he also identified blind spots of the analyzed craft brewers in sustainability, for example, diversity and equity. The focus often lies on operational improvements and efficiency, as well as community development (Ness, 2018). Overall, the awareness of sustainability and climate challenges is increasing in brewing companies (Hoalst-Pullen et al., 2014).

2.3 Connection of the TRANSFORM project to the present study

The SIBLINGS research team was in charge of working package 2 of the TRANSFORM project, a capacity building project with craft beverage producers in Sweden and Germany. As a part of the SIBLINGS research team, I supported in developing and conducting a capacity-building workshop and collected the main data for this study in the context of the workshop. TRANSFORM is an international research project structured in five working packages, and consisting of 11 universities and 15 partners (Burch, 2017). The goal is to “accelerate transitions to sustainability by building capacity in the small and medium-sized enterprise (SME) sector while informing novel approaches to the governance of climate change and sustainability in local spaces” (Burch, 2017, p.4). From a research perspective, a gap is filled by “identifying how SMEs contribute to sustainability transitions and how targeted capacity building can support the transformative capacity of small firms” (Burch, 2017, p.4).

2.4 Cases of the study

The identity of the individuals representing the cases should be kept anonymous. Therefore, the description of the cases focuses on the information about the individual and their breweries that does not make them identifiable. All of the individuals are brewery leaders in craft breweries according to the definition of the Brewer’s Association: They are “Small: Annual production of 6 million barrels of beer or less [...]”, “Independent: Less than 25 percent of the craft brewery is owned or controlled (or

equivalent economic interest) by a beverage alcohol industry member that is not itself a craft brewer.” And they are “Brewer. Has a TTB Brewer’s Notice and makes beer.” (Brewer’s Association, n.d.).

The first case is CEO and co-owner of a Swedish brewery in southern Sweden that was founded in the beginning of 2010s. It is a small brewery that focuses on different kinds of beers. The case is a co-founder of the company who has children. The brewery has many collaborations and is a partner for different big events in southern Sweden. He is between 30 and 40 years old. The brewery produces around 400 thousand liters of beer per year. His background is engineering.

The second case is an individual that runs a family business in Northern Germany that was founded more than 110 years ago. The business is not only a brewery, but also Bed and Breakfast, a pub and event location. It is deeply incorporated in the local environment and the business is matured. The outcome of beer is about 30 thousand liters per year. Case 2 is co-owner of the business, is between 30 and 40 years old, has no children and has a background in management consulting.

The third case is the CEO of a craft brewery in southern Sweden. He has children, is older than 45 years old and a background in engineering and IT, before founding the craft brewery in the 2010s.

The fourth case is a head brewer in a small craft brewery in Northern Germany, has children and previous experience as a brewer in different parts of the world. He is responsible for brewing processes together with one of the founders of the company.

3 Theory

3.1 Inner transformation and sustainability research

To secure a sustainable future, looking at technological and regulatory solutions is not sufficient, but instead, outward transitions need to be supplemented with an inward focus (Geels & Schot, 2007; O'Brien, 2018; Wamsler et al., 2020). Without this adaptation, Abson et al. (2017) even conclude that sustainability science “fails to engage with the root causes of unsustainability” (p. 30). Inner transformation research has an inward focus, looking at how, for example, mindsets, values, human-nature-connectedness, and mindfulness lead to sustainability transitions (Horcea-Milcu et al., 2019; Wamsler et al., 2017; Woiwode et al., 2021). This field attempts to increase the understanding of the root causes and potential leverage points in system transformations toward sustainability (Horcea-Milcu et al., 2019; Walsh et al., 2020; Wamsler et al., 2017; Wamsler & Brink, 2018).

Other disciplines, for example behavioral economics or environmental psychology have developed models focusing on individuals, their drivers and motivations in sustainability. However, the consideration of external environments is often simplified and does not consider the feedback and complexity of certain elements in the context (Wamsler et al., 2021).

3.2 Complex systems thinking in inner transformation research

The basis of the inner transformation-sustainability nexus (Woiwode et al., 2021) is complex systems thinking. Internal dimensions are seen as deep leverage points for change, tackling the problems at the root of a system (Meadows, 1999). The understanding that individuals are shaped by a system which they are part of, and, at the same time, have the agency to (collectively) shape (Horcea-Milcu, 2019; Meadows, 1999) is adopted by many inner transformation researchers (e.g. O'Brien & Sygna, 2013; Walsh, et al., 2020; Wamsler et al., 2021; Woiwode et al., 2021).

According to Meadows' understanding of leverage points, there are multiple ways to influence a system. The most powerful one is a paradigm shift (Abson et al., 2017; Meadows, 1999). It is initiated within an individual, whose inner dimension (e.g. worldviews, mindsets, values, purpose, empathy, agency) influence relations, actions, thinking and being (Horcea-Milcu et al., 2019; Wamsler et al., 2020). Enabling and developing transformative qualities in individuals is identified as one of the deepest leverage points for transformative system change (Meadows, 1999; Walsh et al., 2020; Wamsler et al., 2020; West et al., 2020). Inner transformation research is engaged in investigating interventions that activate, nurture, and shift transcendental values, and how these interventions are

facilitating transformational changes on a system level (Horcea-Milcu et al., 2019). Among others, Woiwode et al. (2021), Wamsler et al. (2020), O'Brien (2018), Horcea-Milcu et al. (2019), and Abson et al. (2017) developed models and heuristics to explain the role of inner dimensions of individuals in a system's dynamics and structures using complex systems thinking.

3.3 Inner transformation research in a professional context

Wamsler et al. (2021) found that there are only a few studies that research the relevance of inner change for sustainability in a professional context. Studies that have been conducted in the context were for example by Rimanoczy (2014), who investigated the motivators for doing business-as-unusual. Also, Wamsler et al. (2020) conducted interviews with policy leaders which informed on transformative qualities and capacities. According to Wamsler et al., (2021), looking into the internal and external dimensions of individuals in a professional context is of high importance, as an individual's influence on a collective and systems level is potentially even higher than in their private environment.

3.4 Three spheres of transformation by O'Brien

In the context of criticizing technical and behavioral approaches to tackling climate change without recognizing the personal and political dimensions, O'Brien presents a model that considers the social complexity of transformation processes (2018). A central tenet of the model is the understanding of the climate goals as adaptive challenges instead of technical problems. This understanding makes the political and personal dimensions of climate change essential success factors of practical strategies for sustainable development (O'Brien, 2018). This is important because this perspective acknowledges the influence mindsets, values, beliefs and worldviews have on both "problems and solutions are perceived, approached and addressed" (O'Brien, 2018, p. 154). Beliefs and values, together, contribute to individual and collective worldviews. This heuristic was considered as a theoretical framing for this thesis but was in the end not selected. Its abstraction made it hard to apply properly to real cases. Instead, the Integrated model for internal-external transformation toward sustainability (Wamsler et al., 2021) is used. This heuristic has adapted thoughts by O'Brien.

3.5 Theoretical framework for the study

For this study, the Integrated model for internal-external transformation towards sustainability (Wamsler et al., 2020; Wamsler et al., 2021) is used as a lens. It was used as a theoretical basis for the case studies and to refine research questions and propositions.

Context

Wamsler and colleagues (2021) proposed an *integrated model of change for internal-external transformation towards sustainability* to be used as “an agenda and roadmap for future research, policy and practice” (p. 1). The aim was to understand and map out the current research on the relationship between internal change and climate action and sustainability. The model can be used as an orientation when researching how and why these different elements of the model are related (Wamsler et al., 2021; see Figure 1). The main proposition of the model is that through changes in transformative qualities and other internal elements of individuals, the inner and outer dimension of an individual is potentially transformed and leads to a continuum of sustainability outcomes, for example pro-environmental behaviors and orientations (Wamsler et al., 2021).

Wamsler et al. (2021) developed a model that summarizes and puts into relation the patterns that they found in different disciplines and from different perspectives. Transformative qualities and intermediary factors are seen as the elements of internal change that could have an effect on external change towards sustainability, while being influenced by the external dimension, e.g. contextual factors, at the same time. These elements build the core of the heuristic, the continuum of individual, collective and systems level change. This continuum should then lead to a continuum of sustainability outcomes on all levels (Wamsler et al., 2021). The next sections describe the most relevant elements for this study in further detail.

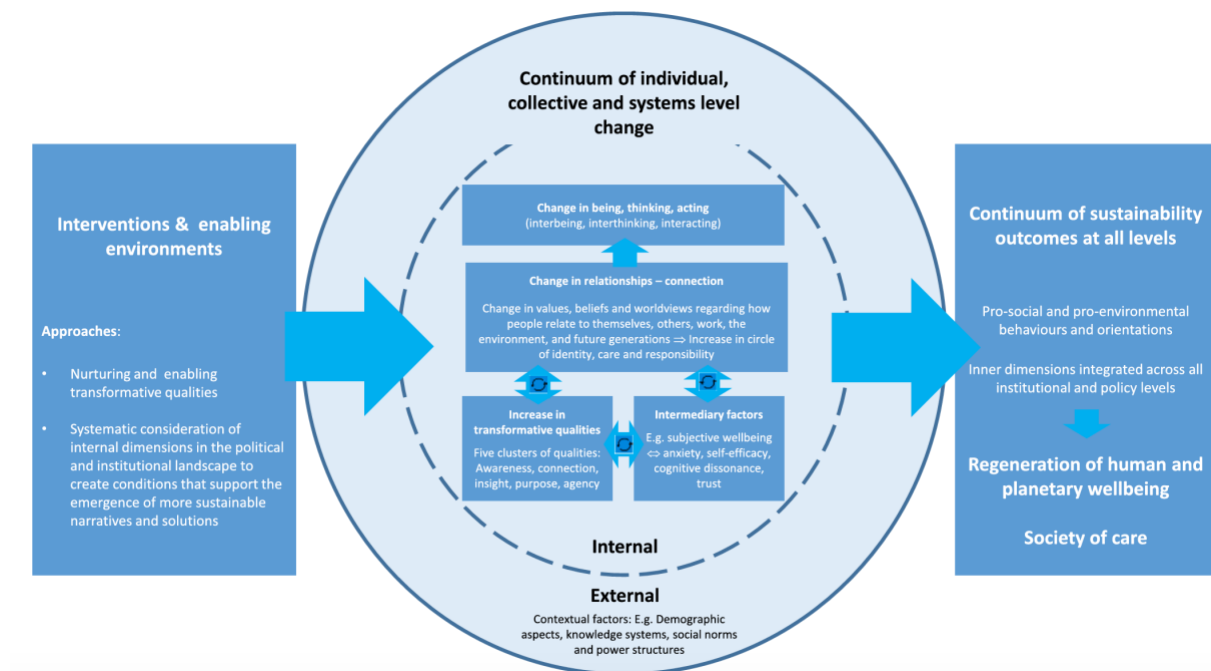
Transformative qualities

The most relevant element for this study is the interrelated clusters of internal qualities, understood as “cognitive, socio-emotional and relational processes” (Wamsler et al., 2020, p. 228). These transformative qualities influence other internal levels of change and “underpin people’s learning, everyday life choices and decision-taking” (Wamsler et al., 2021, p. 5). These interact with intermediary factors, and have the potential to change the being, thinking and acting of a person (Wamsler et al., 2021). They were structured in the five following clusters.

Awareness is defined as “the ability to meet situations, people, others and one’s own thoughts and feelings with openness, presence and acceptance” (Wamsler et al., 2021, p. 8). It includes the concepts of presence, attention, self-reflection, self-awareness, psychological and cognitive flexibility, resilience, meta-cognition, emotional processing and regulation (Wamsler et al., 2021).

Figure 1

Model of change for internal-external transformation towards sustainability by Wamsler et al. (2021)



Note. Retrieved from Wamsler et al. (2021).

Connection is defined as “the ability and desire to see and meet oneself, others and the world with care, humility and integrity, from a place of empathy and compassion” (Wamsler et al., 2021, p. 8) and relates to the concepts of compassion, empathy, kindness and generosity (Wamsler et al., 2021).

Insight is defined as “the ability to see, understand and bring in more perspectives for a broader, relational understanding of oneself, others and the whole” (Wamsler et al., 2021, p. 8) and relates to concepts of perspective-taking, relational, integral, and equitable thinking, and integration of different kinds of knowing (Wamsler et al., 2021).

Purpose is defined as “the ability to navigate oneself through the world, based on insights into what is important (intrinsic, universal values)” (Wamsler et al., 2021, p. 8). It encompasses concepts such as activation and reflection of one’s values, sense of purpose, intention and responsibility, future orientation, intrinsic value orientation, associated meaning-making, senses of equity, solidarity and reciprocity (Wamsler et al., 2021).

Agency is defined as a “sense of empowerment and related qualities/skills that can foster and enhance cooperation, the co-creation of meaning and action-taking” (Wamsler et al., 2021, p. 6).

The transformative qualities in these clusters will be further described in chapter 4. Transformative qualities, in Wamsler et al.'s (2021) understanding have a normative character – internal-external transformation is directed towards sustainability. The model does not specify the interrelations between specific transformative qualities and capacities in the clusters with each other, or with other elements in the model. Three other important elements of the model will be described in the following.

Intermediary factors

Intermediary factors are an outcome of transformative qualities that influence outer change towards sustainability. These are relevant as they also internally enable transformative qualities (Wamsler et al., 2021). They are the following: subjective well-being, self-efficacy, cognitive dissonance, social identity and trust. These factors, together with transformative qualities, build the internal levels of an individual.

Contextual factors

Contextual factors is the external dimension that most directly interacts with transformative qualities and intermediary factors, but it is noted that the differentiation between internal and external is a simplification (Wamsler et al., 2021). Examples of contextual factors are knowledge systems, social norms and power structures (Wamsler et al., 2021).

Enabling environments

Interventions and enabling environments are elements in the model of change that fosters transformative qualities, and through that, behavioral systems change (Wamsler et al., 2021). Suggested ways for this in a professional context is “[T]he design of safe spaces for reflection, learning and co-creation, and building trust are often seen as important enabling factors for supporting transformative skills and associated changes” (Ryan, 2016 as cited in Wamsler et al., 2021, p. 7)

4 Methodology

To answer the research questions, case studies with four craft brewers in Sweden and Germany have been conducted. The methods were participatory observation in a three-day-workshop, the transcribed discussions of selected workshop sessions and notes on a collaborative online whiteboard during the workshop-sessions, as well as two mini focus groups of the participants. All data was collected in the context of the research activities of the TRANSFORM project (working package 2). This chapter will present the methodology applied in this study.

4.1 Application of the heuristic in the study

For the analysis, the heuristic of Wamsler will be used as a lens: “Integrated model of change for internal-external transformation towards sustainability” (Wamsler et al., 2021). As mentioned in the previous chapter, the professional context of individuals from a perspective of inner transformation and sustainability need to consider the complexity and feedback of an individual’s environment in order to understand their inner dimensions. The boundary between inner and outer is an artificial line in the heuristic that is flexible, therefore Wamsler et al. (2021) speak of a continuum of change.

Wamsler et al.’s heuristic is used as a guiding structure when looking for indicators for transformative qualities (Wamsler et al., 2021). The propositions of this thesis are based on the integrated model of change for internal-external transformation towards sustainability, and therefore, the clusters of transformative qualities and capacities are seen to be key elements that are both influenced by external factors, for instance enabling environments and contextual factors, and even more, have an influence on internal and external transformations.

4.2 Research design

The research design for this study is case studies in multiple case design (Yin, 2003). The four brewery leaders are studied as cases in a comparative design (Bryman, 2016). Case studies enable me to look into the cases more deeply and identify potential patterns in the internal-external transformation of the craft brewery leaders.

Deciding on the research strategy

Following Yin (2003), different research strategies used in social sciences were considered for the present study. I decided to use case studies based on three conditions. The first condition is the type of research questions. In the present study, I am asking ‘how’ questions. For this type of questions,

historical method, case studies and experiments are suggested research strategies (Yin, 2003). The second condition is the “extent of control over behavioral events” (Yin, 2003, p. 7). For this study, neither the historical method nor the experiment was fitting, as the historical method is recommended when there is no access to contemporary events or actual behaviors (Yin, 2003), and experiments are conducted when the researcher can “manipulate behavior directly, precisely and systematically” (Yin, 2003, p. 8). The third condition is the “degree of focus on contemporary events compared to historical events” (Yin, 2003, p. 7). The case study can use historical material, but has access to contemporary interaction and observation of subjects studied, while history is restricted to evidence that existed previous to the point in time when the study is conducted (Yin, 2003). For the second and third condition, the case study is a fitting research strategy for the thesis: It examines a contemporary situation, but does not aim to manipulate it, although informal manipulation might occur when observing or interacting with persons or their situations (Yin, 2003). At the same time, it gives the opportunity to use various kinds of evidence, both historical and contemporary (Yin, 2003).

Positionality

I am taking a multi-directional approach for the analysis and aim to find possible explanations on how internal and external dimensions interact with each other based on the elements and categories defined by Wamsler et al. (2021) in the defined limits of this thesis. I understand that feedback and relations can appear both ways, the external dimension influencing the internal dimension, as well as the internal dimension influencing the external dimension of an individual and that the connections between the elements are complex and interdependent.

4.3 Case study design

The case study was designed with the guidance of Yin, (2003) and specified according to several components. A holistic (single-unit of analysis) multiple-case study is conducted. Four cases are chosen as exemplifying cases for craft brewery leaders in Sweden and Germany (Bryman, 2016).

Units of analysis. The unit of analysis in the prevailing case is the craft brewery leaders as individuals with a focus on their role as business leaders. Their direct surroundings in the business are analyzed to some extent.

Logic of linking the data to the propositions. As Yin (2003) suggests, the data will be linked to the propositions by using patterns found in the cases and matching them with the theoretical propositions presented. In this thesis, this means that The model of Wamsler et al. (2021) will show theoretical propositions and the data collected for the cases aims to inform on the cases through the theory, while

critically reflecting on the theory. In order to do this, three sources of evidence are used: participant observation, focus groups and documentation on an online whiteboard.

4.4 Data collection process

4.4.1 Selection of the cases

When I started engaging in the TRANSFORM research team, five breweries had already been selected as participants in the capacity-building workshop. The selection criteria were the size of the brewery, the main location, and an assumed commitment to and interest in sustainability. The size of the brewery should not exceed the definition of a craft brewery (Brewery Association, n.d.), the location in Sweden or Germany, and the brewery leaders are committed to and have an interest in sustainability to some extent. Four out of the five participating brewery leaders will be analyzed and compared in a multiple-case study.

4.4.2 Participatory observation

One main method of data collection was participant observation in the capacity building workshop. When using this method, observing does not only mean to be a passive observer, but can happen in other roles within a case study situation (Yin, 2003). The role for me was to participate in the capacity building workshop with craft brewery leaders as a member of the research team, taking notes and supporting other research team members in facilitating the workshop session. This method was very useful as I could get access to the viewpoint of the craft brewery leaders to some extent, instead of only externally (Yin, 2003).

However, when using this method, certain risks occur: firstly, a personal bias can influence the objectivity of results, and secondly, the role taken when observing participants can require too much attention and restrain the researcher's observations (Yin, 2003). The second risk was addressed by video-recording all the workshop sessions. As the workshop was conducted on zoom, therefore I could watch and analyze the sessions repeatedly.

The field setting: TRANSFORM capacity-building workshop with Swedish and German craft beverage producers

The data collection for this thesis was built around a capacity-building workshop with German and Swedish craft brewers. The capacity-building workshop was conducted as part of working package 2 of the TRANSFORM research project introduced earlier. Two hubs of the TRANSFORM project, Lund University and Leuphana University, have together developed and conducted a capacity development

project called SIBLINGS (Sustainability Learning Network for craft beverage producers in Germany & Sweden). One part of the SIBLINGS project was the capacity-building workshop. The goal of the workshop was to make the participants familiar with sustainability principles in brewing, build transnational networks, and provide a platform for exchange about capacities and sustainability challenges. Beyond that, a visioning exercise and brainstorming about experiments were parts of the workshop.

Role of the researcher in the field

The role of the participant-observer can appear in different variants, depending on the emphasis on either participating (active) or observing (passive) (Yin, 2016). In this thesis, I define myself as an observer who also participates. While I was actively involved in the design and preparation of the workshop settings, my role during the workshop was rather passive. However, the other research team members were facilitators and hosts of the workshop, therefore playing a more active role in the workshop. So they may have influenced the craft brewery leaders during the workshop.

Items of observation

Caused by the format of the workshop in a remote format, the items of observation changes compared to an in-person workshop. However, items for observation suggested by Yin (2016) could still be studied via zoom. Namely these are characteristics of individual people, for example their gestures and non-verbal behavior, although to a more limited extent, the interaction between people, and actions that took place during the zoom workshop.

Howlett (2022) suggests in “Looking at the ‘field’ through a Zoom lens” (p. 387) to observe the background of the person that is visible in the camera, changes in rooms or locations, background noises, actions of muting or unmuting, as well as turning on and off the camera (Howlett, 2022). Additionally, a way to investigate the environment of participants is to simply pose the question where they are right now (Howlett, 2022).

Documentation of the workshop

The workshop was held online via the video conference software zoom and Miro was used as a collaborative whiteboard application or, alternatively, as a website. The sessions were recorded and partly transcribed. Being able to access video-recordings of the workshop is one important advantage of the digital format of the workshop. Firstly, it gives me the opportunity to review the workshop several times and review my initial field notes, as well as transcribing important social interactions of the workshop. Secondly, it allows readers of the thesis to access the setting in which the participant observation has been conducted, which is not possible in traditional field settings.

Sessions of participatory observation

The sections of the workshop that will be described in the following were used as data for this study. The workshop sessions were developed and conducted collectively by the TRANSFORM research team for working package 2.

4.4.3 Focus groups

During the capacity building workshop, mini focus groups with each two participants were conducted. The aim of the focus group was to gain a deeper insight into the mindsets and values of the participants. For inner transformation research, both individual approaches such as interviews (Gray & Manuel-Navarette, 2021; Wamsler & Bristow, 2022; Wamsler et al., 2020) and group discussions and workshops (Woiwode et al., 2021) were used. The reason for mini focus groups compared to individual interviews was to blend them better into the setting of a workshop, and to ease the pressure on one individual to answer.

Focus groups are a way of interviewing a group of selected people (Yin, 2016). That the group is focused means that they were selected according to the presumption of sharing common views or have experiences in common (Yin, 2016). In the present study, this was assumed to apply for the participants of the workshops (see section selection of participants). The researcher takes the role of a moderator by inducing all persons of the group to participate but aims to minimize giving a direction (Yin, 2016). The discussion was structured around six questions with two subquestions (see Appendix).

Guiding questions for the focus groups

The questions were built with the aim of finding out a more focused reflection of the participants on their personal values and mindsets, and how these become apparent in their way of leading a micro brewery or how it influences their understanding of their role as a business leader. After the first interview, the participants gave feedback on the tangibility of the guiding questions which was included in the second focus group. The reason for having these structuring questions was to give the participants in the focus groups space to first reflect on the questions individually, and then share it with one other participant and the researcher.

4.4.4 Written content on the Miro board

The third source of data for the thesis was an online whiteboard used by the studied cases during the workshop. In some sessions, the brewery leaders were asked to independently note their thoughts. For other sessions, smaller groups or pairs were working together, and a part of the results was discussed in plenary sessions. This data source was an important source of data to complement the

participatory observation and focus groups because it provides another way of access to the thoughts of the participants. The Miro board presents the thoughts of the workshop participants that they wrote down rather independently, and mentioned points that could not be discussed in the workshop. The participants added their names or initials on the Post-its so that it was traceable who wrote it.

4.5 Data analysis

To answer the first research question, a deductive thematic analysis was conducted. The themes were adapted from the clusters of transformative qualities in the integrated model of change for internal-external transformation towards sustainability (Wamsler et al. 2021). I used the clusters of transformative qualities and capacities as themes (see Table 1), and coded the participant observations and focus group discussions looking for the different qualities that were subsumed under one of these themes. The data was complemented through statements from the Miro board.

For this second research question, an inductive approach was chosen. The material was analyzed in regard to enabling or limiting factors for putting the transformative qualities into practice.

NVivo, a Computer Assisted Qualitative Data Analysis Software (CAQDAS) was used for data analysis to assign statements and observations in the transcribed recordings to the cases, and to create codes out of which the themes were created.

In the results of the analysis were located in the model of change by Wamsler et al. and, in a further step, were used to compare the cases and suggest types that appeared in the cases and to compare them with existing typologies.

Table 1

Clusters of transformative qualities used in the deductive thematic analysis

Theme	Definition	Key qualities and capacities
Awareness	the ability to meet situations, people, others and one's own thoughts and feelings with openness, presence and acceptance	Self-reflection; self-awareness; presence; attention; acceptance; open-minded, openness (to listen, learn, adapt and change); cognitive flexibility; psychological resilience; meta-cognition; adaptive/ flexible response capacity
Connection	the ability and desire to see and meet oneself, others and the world with care, humility and integrity , from a place of empathy and compassion	Compassion (towards oneself, others, future generations, nature); empathy; kindness; human-nature connection; care; humility; integrity
Insight	the ability to see, understand and bring in more perspectives for a broader, relational understanding of oneself, others and the whole	Perspective-taking; perspective-seeking; relational awareness/ thinking; integral thinking; integration of different ways of knowing; sense-making
Purpose	the ability to navigate oneself through the world, based on insights into what is important (intrinsic, universal values)	Intrinsic values; intrinsic value orientation; sense of purpose; sense of equity; sense of responsibility; future orientation; reciprocity, solidarity; equitable thinking; meaning-making
Agency	the ability to see and understand broader and deeper patterns and our own role in the world in this regard, and to have the intention, optimism and courage to act on it	Sense of agency; sense of empowerment; courage; optimism; action-oriented mindset; solutions-based mindset; creativity; qualities/ capacities to empower others

Note. This table describes the themes and the transformative qualities they encompass. It was used to answer RQ 1. The table was adapted from Wamsler et al. (2021), and the supplementary material F to Wamsler et al. 's (2021).

5 Results

This chapter presents the results of the analysis. It starts with an overview of the observed and identified statements, reported actions and interactions of the participants that indicate different transformative qualities and capacities in the five clusters. The second part of this chapter will present findings on how factors are hindering and restricting the brewery leaders to apply transformative qualities in their role as a business leader.

5.1 Indicators for transformative qualities in the cases

5.1.1 Transformative qualities in case 1

Case 1 showed that he is connected to the world as a whole, when he describes that he does not like to see pollution in other parts of the planet:

Of course, when I see when I see someone's from shit on the street, I tried to pick it up most of times, because I don't, I don't like it when it's dirty and polluted and stuff around. And that goes for a general, general thing as well, I don't, I don't like the feeling of seeing pictures of a dump truck just dumping shit in a river somewhere. Even if it's on the other side of the planet, I still know that it's in that river. And I don't like it (C1, focus group 1, 00:24:45).

This statement indicates qualities that are subsumed in the cluster of **connection**. He continues to describe a positive aspect of this feeling of connection: "And, and, the other part is that I've always had a fascination for this sort of natural world and how it's all connected together in various ways. Which also sort of influences me to wanting to see it thrive as much as possible." (C1, focus group 1, 00:25:30).

The notes brewery leader 1 made on the Miro board was: "The addage that no one can do everything but everyone can do something" (Miro board, frame 3). He explained this post-it when in the focus group discussion and said that

I mean, do try to improve sustainability for business of course that's good for business but I also feel it's something of duty to, to improve, improve the sustainability. It's something I need to do this I need to ensure these things because I would feel bad if I didn't, and I don't want to feel bad (Case 1, focus group 1, 00:33:30).

He mentions that it has advantages for his business to act sustainably, but also describes the inner processes and feelings when saying that it is his duty to do so. Here he indicates taking responsibility (cluster **purpose**) and action-orientation, when he stresses the perceived need to act in a certain way (cluster **agency**).

Case 1 attended all the workshop sessions and even participated with his young daughter for several hours. He was muted most of the time when being on the with his daughter, but as soon as he turned on his microphone, children's music was playing. This indicates a commitment to join the workshop and actively contribute despite looking after his daughter.

Talking about the purpose of the company, case 1 touches upon the three dimensions of sustainability and how they are connected to their brewery: "And that's where I'm bringing in the, my idea for sustainability aspects, you can always produce something, but you want to produce it in a, in a good manner. And that includes both economically, ecologically and socially, of course." (C1, focus group 1, 00:37:05). He continues then to explain that creating surplus for him is important "to ensure that myself and the employees can survive and thrive." (C1, focus group 1, 00:37:36). Here, case 1 makes sense and includes different perspectives on sustainability (cluster **insight**), as well as indicating a long-term perspective (cluster **purpose**).

Apart from the internal reasoning Case 1 described before, he also sees the influence of external developments on the business:

[...] unless you run the business sustainably, it's not going to survive in the future. So you need ensure sustainability in all aspects. Otherwise, you're going to either lose money, lose employees, or in the end have to shut due to a degraded environment. So it is important. (C1, focus group 1, 00:38:23).

Case 1 indicates a future-oriented and seemingly well-informed stand on the consequences of unsustainable ways of running his business, which he aims to avoid (cluster **insight**).

5.1.2 Transformative qualities in case 2

When Case 2 talked about his understanding of sustainability and mentioned the future, which is an indicator for future-orientation in the cluster of **purpose**. He replied to the question what sustainability means to him: "[...] and so one, one thing that came to my mind, or the first thing that came to my mind, was that sentence, no future without sustainability." (C2, focus group 1, 00:27:01). When he continued to answer the question, he mentioned out-of-the-box-thinking in the context of sustainability:

So you also always have to take different dimensions into consideration. And by always taking these different dimensions into consideration, you are forced to think outside of the box, in my opinion, and thinking outside of the box is always pretty, pretty, pretty good. Yeah. (C2, focus group 1, 00:27:57).

These could be examples for perspective-seeking and sense-making, two qualities in the cluster of **insight**. Case 2 presented a thought about the close relationship between empathy and sustainability. He poses the question if sustainability could even equal empathy:

another value for me is always trying to understand the views of other people on certain things. So and then, these last few words came to my mind, empathy, question mark, and sustainability, maybe equals empathy, maybe it's similar or the same or at least empathy is also something like, like the basis for sustainability, definitely. So you can just act sustainable if you got a certain amount of empathy as well your core value or something like that? (C2, focus group 1, 00:29:10).

This expressed thinking process can indicate transformative qualities in different clusters, for example sense-making (cluster **insight**), the importance of empathy (cluster **connection**), and presence and attention (cluster **awareness**).

The truck that is dumping trash in a river was mentioned by case 1. Case 2 picks up on that and uses this example to make his point clearer:

[...] It's the same with me. So if I see a trash truck dumping trash into a river on the other side of the, *Case 1*, it's just like you said it of the planet. So I also feel pretty bad. Because I think that's not right, what is going on there? But yeah, and this is somehow empathy. But on the next hand, you gotta understand the living situation of those folks over there. And I don't know what. So but, yeah, that's empathy again, yeah (C2, focus group 1, 30:24).

This statement indicates some degree of cognitive flexibility (cluster **awareness**) when he combines his earlier thought with the example that the other participant brought up. He restates the importance of empathy (cluster **connection**) in this statement, as well as perspective-taking (cluster **insight**). Case 2 also characterizes himself as open-minded (C2, focus group 1, 00:28:55), which he also indicated when he actively listened to other participants both during the focus groups and the workshop. In general, he made an attentive and present impression, having his camera turned on during the

workshop, taking notes when people presented and picking up on other participants' thoughts (cluster **awareness**).

Case 2 explains in the focus group that it is his innermost belief that gives him the courage to act upon his values, also in the context of the role as a brewery leader:

So if you run a business, or a small business and you, you want to act sustainable, it always goes together with the person of the entrepreneur. So the business, the business reflects, when it's a small, medium sized business, most of the time, the value of values of the business reflect the values of the entrepreneur, of the boss, and so on. And so and and what gives you the courage to act upon these values. It's my innermost belief. Yeah (00:35:01).

How case 2 reflects on the connectedness of his own beliefs and the role as a business leader indicate meta-cognition (cluster **awareness**) and sense-making (cluster **insight**).

When describing the role of his brewery space in the neighborhood, he indicated creativity and an action-oriented mindset (cluster **agency**). Both brewery leaders seem open-minded (cluster **awareness**) and show interest in empowering others (cluster **agency**).

The communication between the two participants were interested in each other's initiatives and ideas, for example case 2 said:

So when you guys are over here in Germany, or we are over in Sweden, I can show you a lot of more details and so on. And it's really cool. What is going on here. [...] By the, by the end of March with beginning of April, things are going to to become real. So it's going to be cool. Yeah. (C2, workshop day 2, 00:42:58).

He shows optimism (cluster **agency**) and open-mindedness (cluster **awareness**), seeming generally excited about the changes themselves and about sharing them with the other participant.

5.1.3 Case 1 and case 2 on the purpose of the company

During the focus group, there were aspects that case 1 and 2 developed together or strongly agreed on. One example was related to the function of their own values in the role of a business owner:

I think you can't really run the business yourself. without bringing yourself into a business. You can't just, of course, it can be you can be employed somewhere and not really care you you're just there for the paycheck. But as I think [Case 2] would know, as well, if you're on your own business, it's it's a lot more work than just going there and doing what's necessary and going home. So you will

always bring yourself and your own ideals into the business, hopefully that can affect the entire business for the better. (C1, focus group 1, 00:31:43)

Case 2 adds: “Absolutely, I totally agree” (C2, focus group 1, 00:32:18), and added a couple of minutes later: “So if you run a business, or a small business and you, you want to act sustainable, it always goes together with the person of the entrepreneur” (C2, focus group 1, 35:10). This conversation shows the commitment and identification of the participants with their role as a company leader. The last sentence, expressing the hope to affect the business for the better by bringing in personal values indicates a sense of agency (cluster **agency**), and a sense of responsibility (cluster **purpose**).

Both business leaders want to have influence beyond their own businesses. Case 1 wants to be a leading example through supporting companies on their transformative journey:

It will be fun to lead by example, if we can make it work. Hopefully we can help others make it work, too, if they're during a stage today where they're not quite able to do the things that we have been doing or if they're not interested today, perhaps they can become interested in the future.” (C1, focus group 1, 00:39:01).

He here indicates a sense of empowerment, a solutions-based mindset and seemed rather optimistic (cluster **agency**).

For case 2, it is not so focused on empowering other business leaders, but the role in the local community when describing the future purpose of the company:

[...] we want to include the societal dimension of the of the sustainability definition more into our own understanding of our company. So that we can use all the space we have in the area and so on, and to to use it as a basis to create a new hotspot together with the neighborhood and so on here in east [city]. So yeah. Getting a building, building a new neighborhood or something like that would be the future purpose. (C2, focus group 1, 00:41:52).

5.1.4 Transformative qualities in case 3

Case 3 could be regarded as an outlier when positioning himself to sustainability. Brewery leader 3 said that sustainability is just good business practice. While in the other cases, transformative qualities were indicated when describing how they understand the term sustainability, this was not the case for brewery leader 3.

For case 3, the understanding of sustainability, both in thoughts and described actions, was different from the other cases. Here, sustainability is rather perceived as beneficial for the company, and something that happens as a side-effect of making good business: “everything you can save in terms of costs, or efficiency is a benefit to you as well. Sustainability is kind of just good business sense.” (C3, focus group 2, 00:06:45). He phrased it in other words again: “I think the basics is, you know, again, it's good business. But also, if you stand for something, you might as well say, you stand for it and be willing to be an example or a reference for it.” (C4, focus group 2, 00:15:35).

Standing up for the improvements in sustainability does not seem to come from a place of transformative change but instead being a reference for making good business while improving efficiency and with that, also sustainability.

Another example was when he explained how the sustainability responsible position in his company came into place:

It was, I don't think it was a sort of a particular word we sort of picked or chose it kind of. We did things and then it sort of just turned around with, oh, that actually fits what sustainability is rather than just the coming out the other way. (Case 3, focus group 2, 00:30:02).

Case 3 did not participate in all workshop sessions. When he was attending, his camera was on most of the times and me made a focused impression. He was willing to exchange phone numbers with case 3 in order to exchange more thoughts about a new approach of refilling beer.

5.1.5 Transformative qualities in case 4

For case 4, many approaches apply both to the business and to the private life:

For example, I think that's important for me, for example, daily business by delivering product to clients. Think before I'm starting the van, I have all this stuff on board, you know, less consumption of fuel, less emissions, for example. And in in your household and your family or obviously is looking to not produce a lot of garbage. Try to recycle the things. I think it's it's in both parts of your life, work and your family life. (C4, focus group 2, 00:02:37).

The behavior case 4 described indicates self-awareness and attention (cluster **awareness**) during every-day activities, and that also becomes a bit clearer when he continues to explain that he is reflecting on his behavior: “A lot of reflections, obviously, what I'm doing, how I'm doing that, I can do it better. So I think it's a permanent process, you know?” (C4, focus group 2, 00:03:37). He also applies this thinking to other people and wishes that they reflect on their behavior and strive to improving things towards sustainability:

I think it must be a common value, generally, that you are thinking about that, you know, that's not an effort. It's, it's part of your life. It must be important. You know, what I mean? [...] Not a special challenge or something like that. No, I think it must be a normal part of life, that you are thinking about some things that you are doing, that you are making reflections about that you are doing right or wrong, what can you do better? (C4, focus group 2, 00:15:55).

Case 4 perceives sustainability as a challenge that can be solved through technological innovations and ideas:

Yeah, the same to me, I'm, I have a technical background. So I'm very, or every time I'm very curious about new techniques, how you can do things better. And obviously, sustainability is, is it's a challenge, and you need some new techniques, some new ideas. So for that, I'm reading a lot of new technologies. So and I'm, I believe that that humans, that scientifics have solutions, we must find them and we must act and implement these new techniques. So that's the reason why it's important for me. (C4, focus group 2, 00:05:12).

As examples for present and future improvements he mentions use "less water, less chemicals, less consumption of CO₂" (C4, focus group 2, 00:17:47), as well as to "switch to lighter bottles" or "labelling [bottles] by recycled paper" (C4, focus group 2, 00:18:47).

Case 4 describes his inner thought process when brewing beer, and how the importance of recycling changed through being a father:

But every time I had it inside me this thinking about what, what, what what can I avoid? What can I do better? Obviously, the last year's it earns, earns much more or Yeah, it was more important. It is more important in the last years. But every time I had something about that inside me, yeah. So okay. That's more important in the in the family life. 20 years ago, yeah. Okay. Recycling is very good. And do it. But But now, it's much more important that that item, and personal life, with my child, obviously. (C4, focus group 2, 00:12:15).

In both personal and professional environments, case 4 describes that a feeling inside of him made him want to change and improve things towards sustainability, which can be an indicator for openness to lean and change (cluster **awareness**) and solutions-based mindset (cluster **agency**).

Observations in focus group 2

The participants in the focus group discussion 2 showed interest in each other's statements. They had their webcams turned on, looked at the screen most of the time and reacted with nodding and smiling to each other. Another observation was that case 4 switched to German while the other participant was receiving a delivery. When talking German, case 4 spoke faster and gave more elaborate replies.

5.2 How are transformative qualities hindered or enabled?

5.2.1 Hindering and enabling factors for case 1

Hindering factor: Improve personal behavior and decisions on company level regarding sustainability long-term sustainability beyond the own business

For case 1, one challenge was apparent regarding his decisions in the role of a business leader to prioritize long-term sustainability goals over the core business. The lack of time is the biggest factor here: "Basically, if you had infinite time, you could do infinite things but you don't have infinite time. So you need to, you need to prioritize. And I feel that often leads to a more short-term focus even when it comes to sustainability" (C1, workshop day 3, 00:14:52). When case 1 describes the challenge of prioritizing long-term sustainability projects, he also mentions that in order to tackle it, you need to improve your skills and ways of planning, in order not "get stuck in the nitty gritty and do the daily work" (C1, workshop day 3, 00:15:14). He then states that long-term projects will have a larger impact down the line (C1, workshop day 3, 00:15:40).

Some minutes later he mentions that especially in small companies the initiatives and goals that are not directly connected to the core business are not easy to prioritize: "But you need to do these things outside the core business in order to make it work in the long run. So that's something that, that I feel is a difficult thing to find." (C1, workshop day 3, 00:17:45).

Enabling factor: Importance of networks

He pointed out the importance of networks that will lead to reorganizations of companies by exchanging thoughts and finding and presenting best practices. It can help him to add capacities in his company that change actions, and to share his own practices (C1, workshop day 3, 00:19:20). He gives an example of a network regarding energy: For instance, we're just joining in a network to work with energy efficiency. It is something that we've joined and this capacity that we have added, but it is the capacity that we need [...]. It's not just capacities we lack, but it's capacities we might have, but need more of as well, if that makes sense" (C1, workshop day 3, 00:19:45).

He also shares his thoughts on the potential of networks on a collective level. Sharing his own sustainability efforts with others could be an encouragement for them to change things. He states that so far they have been “quite bad at letting people know what things we are doing in order to increase sustainability” (C1, workshop day 3, 00:20:25). He wants to increase their own communication of these initiatives: “So I feel, I feel better ways of, better ways of presenting the sustainability work or quantifying the sustainability work. To present to the community wouldn't be something that could be, could be good to have as well” (C1, workshop day 3, 00:20:25).

5.2.2 Hindering and enabling factors for case 2

Hindering factor: Reliable organic hops supply for Case 2

The challenges he is facing are not regarding time resource constraints like for the other participants, much more concrete. The only challenge he brought up in the workshop was the sourcing of organically grown hops. Only seven farmers in Germany grow organic hops and the demand for it is high, also from the side of big players (C2, workshop day 2, 01:33:30). He concludes “Well, they buy nearly all organic hops. So it's pretty difficult for small breweries to find reliable suppliers for organic hops” (C2, workshop day 2, 01:34:01).

Enabling factor: Brewery space as a cultural hotspot for neighborhood

For case 2, the challenges he is facing in his role as a business leader are different from the other cases. When he presented his company, it became clear that the environment of him as a business leader is different in the way that he focused on the future vision for the company. The everyday business is set, the production secured and the responsibilities for him can be focused on the strategic level. He also stated that for the brewery, sustainability was an important topic for a long time: “But we already had embarked to, I don't know how to call it, our mission to sustainability, I would say, long before.” (C2, workshop day 2, 01:29:10). For example, it could be observed during the workshop that case 2 was never interrupted during the workshop. He attended all the parts of the workshop without any disturbances, while the other participants had to drop out of several sessions because of their everyday tasks in the business, for instance to take orders or to serve beer to customers.

Case 2 always looks for opportunities for the brewery to take responsibility beyond their own business. He wants to take responsibility for the neighborhood with his brewery, and influence the transformation towards sustainability collectively. A strong indicator for this was his presentation of the company's vision for 2030.

The location of the brewery pub is located in a neighborhood that is perceived by some as, as he calls it, “unattractive”. However, instead of seeing it as a restriction, he feels the responsibility to take an

active role in the neighborhood development. Already today, he sees the company as a cultural institution in their city (C2, workshop day 2, 01:31:02). By 2030. Case 2 is committed to transforming from “a normal gastronomy business to an integrated sustainable cultural and regional business place, which is formed by the sum of all its parts.” (C2, workshop day 2, 01:36:10). Case 2 aims to be in charge of some of the components (see Fig. 2), but is looking for other organizations to collectively take responsibility for the neighborhood. He elaborated on the mission and vision of the brewery as follows:

[...] we want to bring our whole spot to life again. And not not only the small part, which makes up the brewery, but the whole spot. And our aim by bringing it to live is also to develop our neighborhood, as we are in a part of the city, which, which is more or less something like like the drive through part, I would say [...]. So and our big point is now that we want to, to, to take on [the] brewery as something like a nucleus, and start to to increase living quality, etc, of the whole neighborhood by using the opportunities and potentials of this whole spot with as with its total of nearly 4000 square meters, and nine to eleven further places for small businesses (C2, workshop day 2, 01:40:28).

This statement implies that the responsibility of brewery leader 2 goes beyond the own brewery towards a social responsibility for the neighborhood.

5.2.3 Hindering and enabling factors for case 3

For case 3, the main factors that influence his sustainability actions are the maturity or size of the company and the alcohol regulations in Sweden. He states that “a larger company is easier to make sustainable” (C3, focus group 2, 00:29:26) and a lesser drive to grow when it matured (C3, focus group 2, 00:28:04). Case 3 does not express any active commitment or motivation to transform beyond his business in the present. For him, this is something that will happen more actively when the company has matured further (P3, focus group 2, 00:28:08).

Beyond this hindering factor, he sees the Swedish regulations around alcohol as a big limitation for his business.

The challenges that case 3 reports lay on a structural level. He sees the Swedish regulations around alcohol as a big limitation for his business. For example, beer tastings are not possible as easily as in his home country, and marketing is restricted. This problem is not directly connected to transformation towards sustainability or indicating any actions in response to potential transformative qualities, but rather on the sales opportunities of the business.

It is very hard in Sweden, Sweden has some of the most restrictive and I will just say stupid hang ups about alcohol that's like I'm Irish originally and I just why like we have a license for a tasting room but with COVID and all that it was just no point in the past two years and we're considering opening up again the summer where like we're close to a town but at the same time the actual business park location has automatic gates close and it doesn't make it as convenient for people to just turn up and have a few beers. It kind of needs to be an organized event and that takes a lot more planning to to get that going (C3, focus group 2, 00:32:59).

Both factors are for him hindering, if not fulfilled, and enabling, if fulfilled. It is unclear, however, if his sustainability efforts would go beyond his own, rather traditional, business interests.

Different views of case 1 and case 3 on alcohol regulations in Sweden

Case 1 sees the Swedish alcohol regulations as an opportunity to collaborate and become more creatively. He sees possibilities opportunities even though it is a bit more challenging than in other countries:

But in general, there are various lot of things we can do, even though we can't really do everything you can, for instance, in Germany, so we can't sell directly to customers at our location. However, it is possible to arrange tastings and stuff like that, if you have a permit, you can do it in your location. Otherwise, you can usually cooperate with local restaurants or other venues where you can do things like this. So it's definitely things that are possible to do even though you need to jump through a few more hoops in order to make it work, I think. (P1, Workshop 0222, 00:47:28).

Case 3 reacts to this and elaborates on the problems and challenges in Sweden. When he ended his statement with saying that the “The emphasis is taking all the fun out of things.” (P3, Workshop 0222, 00:48:18), case 1 was smiling, which was interpreted by case 3 as an agreement to his point.

Interaction between P1 and P3, talking about expectations and opportunities to get consumers in touch with the product. While case 1 partly agrees with the case 3 that it is challenging to bring the consumer in touch with new products, and the aim of the structures is to take fun out of things, case 1 still sees opportunities and chances to still make it real. Case 3, however, does not express the solution space optimistically.

5.2.4 Hindering and enabling factors for case 4

Hindering factor: Time constraints and many responsibilities in the brewery

Case 4 presented a problem that was related to the problem of case 1. However, his company acts in a very different context, as factors like product availability do not seem to be as secure as for case 1.

Case 4 also presented the challenge of shortage in time resources that constrains the realization of many ideas. He brought the example of the sustainability potential of mushroom cultivation out of spent grains and about his opportunity to collaborate with microbiologists from a university. He said that he found this topic very interesting and that the brewery would even have space for it, but that the rebuilding efforts and time to set it up is not available right now. He explains: “but at some point you have to also stop and say: ok, we'll focus on that [one of many ideas] now, and then it will also be implemented, with a schedule, with an investment, if it [an investment] would be necessary.” (translated from German; C4, focus group 2, 00:22:22).

The day-to-day business is restraining the potential of realizing the many ideas he and his colleagues have. It is important to not forget about them, but to park them for the time being (C4, focus group 2, 00:23:45). He expands further on the problem of a small company size and explains how the day-to-day production of beer has the highest priority, including for example also cleaning tasks:

I mean the point is that, for example, with us, today I'm here alone. I do everything. From washing barrels to tubing to producing, but de facto my, my skills are actually somewhere else, yeah. They are actually here in front of the computer. Yes, for example efficiency planning. So, if we get there, that at some point someone jumps around outside and does my work, then you can certainly, well, let's say, implement a lot more. Yes, then really say, somehow say we can do this, do this, do that, but it all has to be organized somehow. (translated from German; C4, focus group 2, 00:24:07).

The solution he describes here would be to have another employee that supports the production process, so that he can improve efficiency and implement sustainability initiatives beside the core business “in front of the computer” (C4, focus group 2, 00:24:20). When he says that everything needs to be organized somehow, lacking time management and organizational skills could also cause this challenge.

During the workshop, a situation appeared that was an example for the things Case 4 explained in the focus group discussion: Case 4 left the meeting because he had to serve beer to some cyclists passing by the brewery. While the participants were working on a group exercise, he rejoined the call and explained, as a reply to a research team member noticing that he was back: “Yeah, hi, I'm back. Sorry for that but, there coming up some people by bicycles and they, they was thirsty” (Case 4, workshop day 3, 01:01:24). He seemed unimpressed by the situation and sounded like this would be part of his every-day work.

6 Discussion

In the following, the two research questions will be answered and the results interpreted. After this, I will reflect on the theoretical framework and methods, and then suggest future areas of research.

6.1 RQ 1 How transformative qualities are indicated by the four brewery leaders

Indicators for transformative qualities were found in all cases, although to different extents. The qualities that were indicated by all participants were action orientation and a sense of responsibility for their own company. However, cases 3 and 4 share the understanding of sustainability as a challenge that can be solved through increased efficiency and technological innovations, while cases 1 and 2 are actively positioning themselves to take responsibility beyond their own breweries. Case 3 can be seen as an outlier, as he expressed a rather narrow understanding of sustainability, one that sees sustainability as a good business sense.

6.1.1 Enabling environments and contextual factors

Maturity of the companies

Case 1 and 2 are individuals that lead companies that are established and have a stable customer base. Cases 3 and 4, instead, represent a more immature company that is still focusing on growth. The understanding of sustainability was focused on technology and efficiency. While the brewery of case 1 produces 400 thousand liters of beer per year, the brewery of case 4 is now in the first year of production and in the process of securing the production. This indicates that the enabling environments could vary between the cases, for example through the difference in urgency of tasks in the production and different opportunities to prioritize sustainability initiatives over core business processes.

Key roles in communities in case 1 and 2

Case 2 already now described his brewery and connected pub as a cultural hotspot, and he is committed to expand this position as he showed in the vision for 2030. Case 1 is aiming on taking a key role in local communities and to be an example for other craft brewery leaders. This shows that these craft brewers take responsibility for creating neighborhoods or networks that give room to innovate and transform towards sustainability. Examples that were mentioned were start-ups and slow food entrepreneurs, as well as collaborations with academia and the public sector. With these either current situations or goals, the brewers find themselves in safe spaces for co-creation and learning.

6.1.2 Hybrid founder identities

When interpreting the findings, it became clear that the applied heuristic would need to be complemented with another theory in order to understand the meaning of the transformative qualities in the case studies. While different typologies of business owners exist in the literature, One typology defines hybrid entrepreneur identities and will be described in the following. This typology should help me to structure the findings and look at the role of business leaders in the cases.

The hybrid identities consist of commercial and ecological aspects, appearing in either a commercial dominant, an ecological dominant, or a blended identity (York et al., 2016). The commercial dominant follows a commercial logic, while focusing on “exploiting commercial opportunity” (York et al., 2016, p. 709). The ecological dominant is the dominating motivation to tackle environmental problems, while also appreciating the commercial value of the business. However, these aspects were only “a means to reinforce their ecological identity.” (York et al., 2016, p. 709). In the blended identity, the entrepreneurs “explained their motivations as based on a blend of both the ecological and commercial identities; they expressed the complementary nature of this blend.” (York et al., 2016, p. 722). The perceived “commitment to environmental entrepreneurship as a means to enact the perceived synergy between a founder’s ecological and commercial identities. (York et al., 2016, p. 723).

Based on the findings, for case 3, a commercial dominant can be assumed, while for case 1, 2 and 4 either ecological dominant or blended identity would be possible identities. The study found that blended commercial and ecological identities can lead to creative rather than constructive tensions (York et al., 2016). Finding these creative tensions could be achieved through creating enabling environment, embracing co-creation and learning (Wamsler et al., 2021).

6.2 RQ 2 Aspects hindering and enabling to act upon transformative qualities

6.2.1 Aspects hindering to act upon transformative qualities

Hindering factor: organizational capacities for case 1 and 4

Even though the context and scope of initiatives differ between case 1 and 4, an underlying missing capacity seems to be organizational skills. Case 1 states this directly when answering a question about lacking capacities, while for case 4 it was indicated by the way he spoke about potential projects. He described the details and then seemed overwhelmed, for example when he describes the time needed to plan sustainability projects out thoroughly before starting with them. When he says that it all has to be organized somehow (C4, focus group 2), it sounds like this is an activity that he has no time capacity

for. Observations like the serving beer to bikers during the workshop was an example of the struggle he expressed during the workshop and focus groups.

Intermediary factors internally enable transformative qualities (Wamsler et al., 2021), therefore they are important to look at in the context of the challenges. The challenge of lacking time management skills, and strategic management can be seen as internally hindering the brewery leaders, as these capacities enable self-efficacy, and trust.

Restrictions on selling and consuming alcohol Sweden

Another aspect that was mentioned by case 1 and 3 is specific for Sweden and focused on the restrictions of selling and serving alcohol. It restrains the brewery leaders' possibilities to create relationships with consumers, for example through participatory production. This could have been a measure that leads to collective change through changing consumer behavior.

The hindering factors and sustainability in SMEs

Challenges for SMEs regarding sustainability that were identified in the literature (chapter 2) touch upon various topics. The results of RQ 2.1 are in line with the following potential issues found in the existing literature: problems related to time and resource management, prioritization of the core business (Cassells & Lewis, 2011), and missing environmental education availability (Redmond & Walker, 2009). The general preference of SMEs for power bundled in one singular leader, and their lacking engagement for pro-environmental behavior was, on the contrary, not identified as hindering. Instead, having a transformative SME leader with decisive power could rather be a possible enabler for changes. The results of RQ 1 indicate that transformative qualities, especially in the clusters purpose, and agency, enabled them to think of different solutions and approaches to tackle the challenges, and thus advance their contribution to transformation.

6.2.2 Aspects enabling actions from transformative qualities

It became clear that many enabling aspects require structural change and fitting environments. The *model of change for internal-external transformation towards sustainability* concludes that systemic change is reached if "enabling factors are put in place and people's potential as change agents is systematically supported" (Sharma, 2017 as cited in Wamsler et al., 2021).

Networks

The biggest enabler for transformative actions in the studied cases were networks. The building of networks was a major topic for the participants when discussing solutions and innovation.

Networks and relationships create an enabling environment in the form of a supportive space for co-creation, trust and learning. This offers the participants in this network with a shared vision for, or dialogue about sustainable transformations. Not only is it more encouraging to have a group that *collectively transforms personally*, but the solution is also independent from the brewery size as the enabling environment is created outside of the company.

Through improved enabling environments and internal dimensions of the model of change, contextual factors can be changed, which would for the cases in this thesis, for example, mean building peer networks. Enabling environments can positively impact the development of transformative qualities and intermediary factors, i.e. the internal dimension of an individual in the model of change.

Potential of academia and transdisciplinary workshops as an enabling factor

One of the enabling factors that were found was building a network with other craft beverage producers. Academia could play a facilitating role through transdisciplinary research. The workshop gave them the opportunity to connect with each other. The planning of further meet-ups was initiated by the participants. The role of the research team in the workshop was to enable the network and suggest different topics and activities both for the breweries individually and collectively. O'Brien (2018) suggests ways to foster deep transformations through facilitating political empowerment through transformative and transdisciplinary learning processes. This creates enabling environments by supporting the building of networks and knowledge-sharing platforms. The model of change suggests different needs to accomplish system change through inner transformation: one of them is the development of environments that cultivate transformative qualities to nurture intermediary factors (Wamsler et al., 2021). Secondly, internal dimensions should be integrated into the political and institutional landscape (Wamsler et al., 2021). The focus lies on the creation of structural conditions that enable new solutions and narratives.

Improving enabling environments and intermediary factors through developing time and strategic management skills

Time and strategic management skills are not by themselves intermediary factors or transformative qualities, even though located on the internal dimension of individuals. These skills, however, can be used as tools to (i) use the short available time more efficiently (through time management capacity), and (ii) to be encouraged to shift the focus to long-term goals and visions that are in line with the craft brewery leaders' mindsets and values (through strategic management skills).

6.3 Reflections and limitations

6.3.1 Reflections on theoretical framing and methodology

Reflection on the usefulness of the chosen heuristic

The model of change for internal-external transformation towards sustainability was a useful lens to identify indicators of transformative qualities in the cases and make comparisons between the cases. However, it was challenging to use it as a tool for a deeper analysis. It did not provide any guidance on the interrelations between the clusters or specific transformative qualities, and the explanation of interrelations between qualities was not detailed enough to apply them in a useful way in this study. For a deeper analysis of certain transformative qualities, a more detailed description of the single qualities would have been required. Also, the findings could have become more meaningful when complementing the inner transformation perspective with previous research more specific to the cases.

Newness of inner transformation and the chosen heuristic

The theoretical models I used in the study have not been tested as thoroughly as others, as inner transformation is an emerging field and the theoretical models have not been applied to many studies. This was challenging in terms of finding literature and existing studies that applied the model and adapting methods to the present study.

6.3.2 Reflections on methods and data collection

The analysis was limited in the way that the actions of the participants before or after the data collection, or the environments, and impacts of the craft brewery leaders. The results, therefore, mainly rely on what the participants expressed, but not a thorough assessment of their actions and behavior. It would have been very interesting and relevant to deeper investigate the business activities and decisions of the brewers and to understand how their transformative qualities influence these factors, instead of deriving conclusions from discussions and observations. With a longer study period, it would have been possible to also observe the implementation of the suggested solutions in the future, as well as doing field visits.

The workshop was constrained by different external factors, among others Covid-19 and changes in the availability of the participants. The pandemic restricted the workshop to take place online, which might have changed the group dynamic between participants, as well as between researchers and participants. The tools for supporting collaboration, for example whiteboards or games, as well as mingling in the breaks between sessions could not take place in the same way in a digital format as in

an in-person workshop. A challenge here was differing technological skills and availability of suitable devices to actively participate in the collaboration on the online whiteboard. However, the facilitators of the workshop adapted to the situation by changing the set-up of some sessions, and for example letting the participants dictate to facilitators what to write on a post-it on the Miro board.

Regarding the data presentation, it was unfortunately not possible to include more pictures and screenshots from the participatory observation as the companies due to the ethical consideration to not make the cases identifiable.

During the data collection technical failures occurred that reduced the data availability. Some of the recordings documenting the workshop were provided by a member of the SIBLINGS research team. One audio file of a session on backcasting and visioning was destroyed and could not be used as data.

6.4 Recommendations and future research

Whilst there are many research areas that need to be developed further, the following were most apparent and relevant to critically explore: Inner transformation in a professional context and the role of business leaders as active change agents for transformation in the personal and political sphere, effects of certain transformative qualities on transformation in the personal sphere, company goals and visions from an inner transformation perspective, for instance, the approach to growth, enabling environments individuals with transformative qualities to put these into action, the role and settings of transdisciplinary research in creating enabling environments and contributing to positive change of intermediary and contextual factors

7 Conclusion

This study studied four craft brewery leaders in Sweden and Germany as exemplifying cases and looked for indicators of transformative qualities. These qualities can induce internal and external change of individuals and are, if put into action, important leverage points that have been overlooked so far. After identifying indicators for transformative qualities, I looked for factors in the four cases that are hindering or enabling the process of putting transformative qualities into action. Three sources of data were used in this comparative case study: participatory observation, focus groups and documentations on an online whiteboard.

The main findings were that three out of four brewery leaders indicated feeling *a need and will* to take responsibility for a sustainable future, act upon their intrinsic values, are encouraged to have a positive impact (TQ clusters purpose and agency), understand the main challenges of sustainability (TQ cluster insight), and feel connected to the world and nature as a whole (TQ cluster connection). The qualities and identities could vary because of differences in their environment and context such as the maturity of the brewery and regulations in the country.

Further, it was found that the hindering factors to putting the transformative qualities into action are related to missing enabling environments and time constraints in daily business. The main enabling factors for transformative action towards sustainability in the studied cases were networks with peers, consumers and academia. If implemented and expanded in the near future, these networks could contribute to changes in thinking, acting and being.

For the emerging field of inner transformation and sustainability, these findings were a useful step in informing on transformative qualities and their role in four exemplifying business leaders in their professional environment.

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Appendix

Appendix 1

Guiding questions for focus group discussions

Focus group 1 (C1 and C2)	Focus group 2 (C3 and C4)
<ol style="list-style-type: none">1) How do you, personally, understand the term sustainability?2) Why is sustainability important for you?3) Do your personal values influence your previous answer?4) What gives you the courage (as a motivating factor) to act upon these values?5) Describe the purpose of your company...<ol style="list-style-type: none">a) todayb) in the future6) Do you think the priority of sustainability in your company will change in the future?<ol style="list-style-type: none">a) If yes, why?b) If not, why?	<ol style="list-style-type: none">1) What does sustainability mean to you personally?2) Why is sustainability important for you?3) Do your personal values influence your previous answer?4) What encourages you to act upon these values?5) Describe the purpose of your company...<ol style="list-style-type: none">a) ... todayb) ... in the future6) How do you think the priority of sustainability in your company will develop in the future?<ol style="list-style-type: none">a) Will it increase or decrease?b) Why do you think that?