

LAPPEENRANTA UNIVERSITY OF TECHNOLOGY

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**FOODSYSTEM TRANSITION TOWARDS
SUSTAINABILITY: INSIDE THOUGHTS OF PIONEERS**

Examiners: Professor Lassi Linnanen

Associate Professor Mirja Mikkilä

Supervisor: Associate Professor Satu Teerikangas

ABSTRACT

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Food system transition towards sustainability: Inside thoughts of pioneers

Master's Thesis

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The objective of this Master's Thesis is to find individuals' inducements that assist innovation adoption in the framework of sustainable food system. The purpose of the thesis is to examine the reasons why individuals adopt sustainable approaches, and furthermore, to see by what means the transition to the more sustainable food system could be accelerated. The study's focal point is on the micro level, even if the wider purpose is to accelerate the holistic change of food system in the near future. The study consists of a literature review and a qualitative research, which is actualized with semi-structured interviews.

The results indicate that individuals adopt innovations based on their strong intrinsic motivation. The main inducements were environment-related and health-related aspects, and individual's deep connection to the countryside. The effect of social circle and doing good actions with the consuming behavior were also highlighted. Strongest barriers to innovation adoption seem to be price sensitivity, lack of easiness, and lack of interest in food. The findings indicate also that the most significant means that could ease the individuals' decision to adopt an innovation are health-related aspects, educating and learning, environmental aspects, and decreasing the prices. Although the theoretical part of the study highlights the effect of positive reinforcement, the empirical part neglects it.

TIIVISTELMÄ

Lappeenrannan teknillinen yliopisto
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Ruokajärjestelmän muutos kohti kestävyyttä: Pioneerien ajatukset

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Tämän diplomityön tarkoitus on löytää ihmisten vaikuttimia, jotka edistävät ruokajärjestelmään liittyvien innovaatioiden omaksumista. Tämän työn tarkoitus on selvittää syitä minkä takia ihmiset omaksuvat ruokajärjestelmän vastuullisempia innovaatioita ja myös selvittää millä keinoilla innovaatioiden omaksumista voitaisiin kiihdyttää. Tutkimuksen polttopiste on mikrotasolla, mutta laajempi tarkoitus on nopeuttaa ruokajärjestelmän kokonaisvaltaista muutosta lähitulevaisuudessa. Tutkimus koostuu teoreettisesta ja käytännöllisestä osasta. Teoria on toteutettu kirjallisuuskatsauksena ja käytäntö teemahaastatteluista koottuna laadullisena tutkimuksena.

Tulokset viittaavat siihen, että ihmiset omaksuvat innovaatioita hyödyntäen vahvasti heidän sisäsyntyistä motivaatiotaan. Tärkeimmät vaikuttimet olivat ympäristöön ja terveyteen liittyvät syyt, sekä yksilön syvä yhteys maaseutuun. Yksilön lähipiirin vaikutus ja ostopäätöksellä vaikuttaminen korostuivat myös tuloksissa. Suurimmat esteet innovaation omaksumiselle olivat kalliit hinnat, helpouden puute sekä kiinnostuksen puute ruokaa kohtaan. Tulokset viittaavat siihen, että keinot joilla muut saattaisivat omaksua innovaatioita, ovat terveyteen liittyvät syyt, oppiminen ja opettaminen, ympäristöön liittyvät syyt sekä hintojen alentaminen. Tutkimuksen teoreettinen osuus korostaa positiivisen vaikuttamisen merkitystä, mutta käytännön osuus ei huomioi sitä.

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Lappeenranta, January 1st 2015

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1 INTRODUCTION

1.1 Background

One of today's urgent global challenges is food security, and there is a floating question about the food sufficiency. In order to react on this challenge there is an instant need for the development of new and innovative ways to transform the existing food system structures of the food system. The sustainable development of food system requires an extensive change to the present status quo.

Sustainable approaches for food system are considered as a very modern kind of techniques and innovations, and it is remarkable that the actual innovation can be, for instance, a different way of doing things or a product that is more sustainable than the comparable product in the mass-markets. One instrument for the food system transformation is to harness those individuals who have already invented or adopted some sustainable food system approaches to speed up the transformation process. Unfortunately, sustainable approaches have not achieved the critical mass yet, and the approaches still remain as alternative choices for some green consumers, regarded as innovators or early adopters. However, at the moment, there is a demand for a faster development in the transformation of the food system, and therefore, there is also a need to resolve, how to hurry the innovation adaption. Consequently, the main target is to find the underlying elements why individuals adopt innovations, and thus, in the near future, the food system transformation could be accelerated using the individuals as a driving force.

1.2 Research description and questions

The aim of the research is to find the concealed elements that assist the adoption of innovation in the framework of a sustainable food system. The purpose is to examine the reasons why individuals adopt sustainable approaches, and furthermore, to see by what means the transition to a more sustainable food system can be managed and eased. In other words, the focal point is on the micro level, even if the wider purpose is to accelerate the holistic change of food system in the near future, conquering also the macro

level. Although this study concentrates on the micro-focus, there is a strong underlying assumption that the macro level is built of micros. Consequently, the intention in this particular study is to examine the motivations of the innovators and early adopters, who are also regarded as pioneers, and see whether there are any potential ways to expand the food resilience to the critical mass and then to the majority of the consumers. In other words, in this study, the pioneers' thoughts are on the focal point. The intention is also to study the effect of positive reinforcement on innovation adaptation, accepting the change and individual's motivation as an undertone throughout the whole study. Here, the actual innovative technique is not essential.

The study concentrates on the Finnish innovators who have been able to create or adopt a sustainable approach to food system, or even expand the food system's more sustainable approaches beyond themselves also to other individuals. Based on this introduction, the research questions can be summarized and presented as below:

1. Why do the individuals adopt alternative approaches compared to the mainstream in the framework of food system?
2. On what terms would the others participate in these alternative approaches?
3. How does positive reinforcement affect adopting new approaches?
4. What are the factors that have helped successful innovations?

1.3 Research methods

The nature of this research is qualitative, which means that it consists of theory and practice (Tuomi and Sarajärvi 2002, 17). The study is composed of a narrative literature review and an empirical research, which is implemented with qualitative interviews. The narrative literature review part is an entity formed by the literature of innovation diffusion, change management, sustainability, social sciences, and organizational behavior. In addition to the selected books, the review consists of related articles. These literature references create the theoretical framework of this research, which is needed to steer the research. (Tuomi and Sarajärvi 2002, 17).

The empirical part is constructed by interviewing some of the food system innovators and early adopters in Finland. The interviewees were selected beforehand, and the con-

stitution of the interview was semi-structured, which means that there was a range of questions planned in advance but the questions were open enough so that there was also space for sequential questions that were improvised during the interviews (Wengraf 2004, 5). All the interviews were realized in face-to-face situations. The chosen interviewees are all linked to the food system, and each one of them had adopted or developed some sort of sustainable approach that can be considered as an innovation.

The analysis is theory-related, and the logic is mostly based on abductive reasoning. The theoretical analysis is affiliated on some specific theory, or theories, or schema, which are presented in the research. The theory still does not steer the analysis but gives instead fresh schemas for new ways of approaching issues. The prediction from the given data analysis was created using retrospection. (Miles and Huberman 1994, 146; Tuomi and Sarajärvi 2002, 97–101.)

1.4 The main terms and themes of the research

The main terms of the study are clarified to avoid misunderstandings. Terms are explained in Table 1. More precise links between the terms and theories are brightened during the research. The terms sustainable development and transition management, which are supporting, but underlying, themes in this study, are also presented.

Table 1. Main terms and themes of the study.

Term	Definition	Reference
Adoption	The determination of adoption is defined as a decision to make full use of an innovation as the best course of action available. Hence, rejection is a decision not to adopt an innovation.	Rogers 2003, 21
Change	Change comes in different shapes, sizes and forms but, by the simplest way, change means making something differently.	Robbins et al. 2010, 518
Cognition	Cognition is identified as a mental process of knowing, perceiving and judging that enable people to interpret the world around them.	Chisnall 1997, 23
Diffusion	Diffusion is a process where an innovation is communicated across certain channels over time among the members of a social system	Rogers 2003, 5
Emergent change	Emergent approach initiates from the assumption that change cannot and should not be solidified, or as seen a series of linear events within a given period of time; instead, it should be viewed as a continuous and open-ended process.	Burnes 2000, 283
Innovation	Innovation is determined as an idea, practice, or object that is perceived as new by an individual or other unit of adoption. According to him, innovation can be nearly anything in the event that is new for the adopter	Rogers 2003, 12
Innovation resistance	Innovation resistance is the objection offered by customers to an innovation, either because it poses potential changes from a satisfactory state or because it conflicts with their belief structure.	Ram and Sheth 1989, 6
Micro and Macro level	The micro and macro levels are defined as follows; The micro-level focus underlines face-to-face interaction and personal relationships and how these encounters and relationships are related to people's identities, motivations, and behaviors. In contrast, the macro-level focus involves an effort to understand larger-scale social systems, including the overall society, its major institutions and how they are interrelated, its socioeconomic class structure, and its relations with other societies in our increasingly globalized world. Both are valid and crucial areas of sociological inquiry	Johnson 2008, 8
Motivation	Motivation is specified to the process that account for an individual's intensity, direction and persistence of effort toward attaining a goal.	Robbins et al. 2010, 140
Positive reinforcement	Positive reinforcement is the act of identifying and encouraging a behavior, with the hopes that the desired behavior will increase. The theory is that any behavior followed by a pleasant stimulus is likely to be repeated.	Burden 2000, 82 Westen 1999, 505
Schema	Schemas are determined to be the knowledge structures that contain categories of information and relationships among them.	Elsbach et al. 2005, 422
Sustainable development	Sustainable development is a program for balancing needs between economical- social- and environmental aspects. Sustainable development can be regarded as pioneering force to environmental protection and demolishing the poverty.	Harlow et al. 2011. 271 The Worldwatch Institute 2014, 139-140
Transition management	Transition management (TM) is a systemic approach, postulated as a new governance model which is concerned with steering and coordinating large-scale system innovations towards greater sustainability. An important part of transition management is envisioning sustainable future development.	Sondeijker 2006, 15

1.5 Structure of the research

At the beginning of the research, the main terms of the study are defined and the concept of a food system presented. After the introduction and the definitions of the study, follows the theoretical part, which is performed as a literature review. It is important for this study to perform the innovation diffusion theory and also the innovation resistance theory, since not every innovation is able to reach from the micro-level to the critical mass. Where innovations are novel and their adopting means doing something differently than before, the concept of a change is also examined. The demand for a micro-change is also mapped out in this research. To resolve the inducements and reasons why some innovations are more successful than others, it is important to bundle the behavioral features and the psychology behind the adoption acts of individuals and also understand the need for the micro-change.

The literature review part includes also some speculation of what motivates the individuals act on good principles, and how the positive reinforcement effects on the innovators and early adopters is also under an increasing attention in this study. The effect of a positive reinforcement in this framework is represented in Figure 1 below. All in all, the most crucial scope in this research is to map out the micro-level actors and their inducements and thoughts.

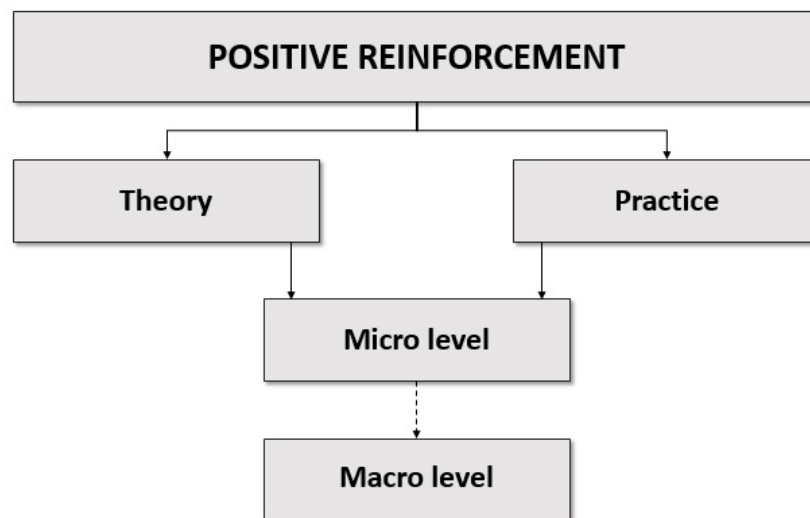


Figure 1. Effect of a positive reinforcement.

The literature review is followed by the empirical part of the study. The empirical section is a segment where a sample of food system pioneers is interviewed. The selected interviewees were innovators and early adopters all of whom had invented or adopted, a more sustainable food system approach compared to the prevailing method. In addition to the new approach, some of the interviewees had also extended the activity to other individuals, whom were regarded as early adopters. The interview section is followed by the results and discussion section where the results are presented and analyzed and examined to find out whether there is a correlation between the individual's actions and whether a successful innovation can be found. Further studies are also suggested. Eventually, at the end of the research, conclusions are presented. The structure of the study is presented in Figure 2.

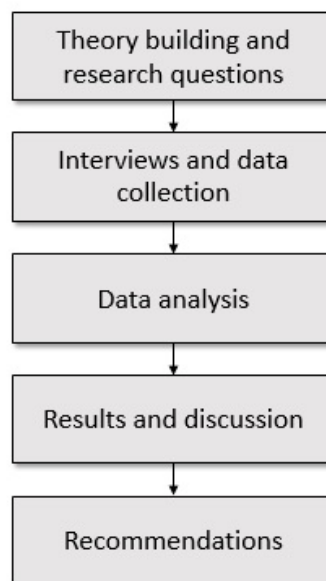


Figure 2. Research structure.

1.6 The food system

The result of a food system is the nutrition that is provided for eating. The actual food system is a larger concept covering the whole cycle from the food production all the way to the end disposal of materials. A simplified food system is consisted of food production, processing, distribution, retailing, consumption, and finally the disposal phase. The simplified food system is presented in Figure 3.

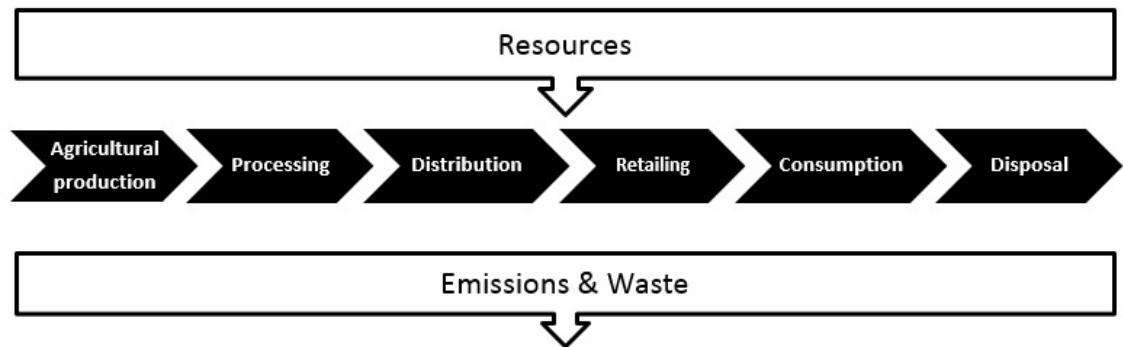


Figure 3. Simplified food system.

In addition, the food system is a wide combination of private enterprises and public policies from farm input suppliers, through food processing and retailing companies onto consumers and continuously, to public policies that monitor and encourage. Policies also reward farmers with support prices, secured markets, protective regulations, export markets, and crop insurance. Furthermore, to the complexity of the system, it varies even more because, unlike most industrialized goods, food can be handled and consumed by the final consumer in different states of processing from seeds to ripe fruit, from raw to cooked, from fresh and natural to preserved and manufactured, and from local area to foreign imports. (Armbruster and Knutson 2013, 14–15.)

Every phase of the food system creates environmental impacts. Depending on the features of the food product, the most considerable impact alternates, for instance, from the production to the distribution. By supporting more sustainable methods it is possible to decrease the food system's environmental impact significantly. It is evaluated that about one third of the environmental impacts in the EU is caused by the food system (Tukker et al. 2006, 14; Tukker et al. 2009, 5).

2 LITERATURE REVIEW

2.1 Innovation diffusion and adoption

Some theoretical background regarding innovation diffusion is needed to be presented to understand why some innovations are successful and some are resisted. The innovation diffusion theory was originally performed by Everett Rogers; he presents the innovation diffusion as a process where an innovation is communicated across certain channels over time among the members of a social system. Communication, on the other hand, is a process in which participants create and share information with one another to reach a mutual understanding. The communication of an innovation may lead to the adoption, adaptation, rejection, or discontinuance, such as rejection, followed by the initial adoption of that innovation. Diffusion can be also regarded as a social change, defined as the process by which alternation occurs in the structure of a societal system. Social change occurs when new ideas are invented, diffused, and adopted or rejected, leading to certain consequences. (Rogers 2003, 35–38.)

The diffusion of innovations has four main elements: innovation, communication channels, time, and the social system. An innovation is regarded as an idea, practice, or object identified as new by an individual or other unit of adoption. A communicational channel covers the manners by which a message is delivered from one individual to another. Time in the diffusion-process is involved repeatedly. Time plays a certain role in the actual innovation-diffusion process, innovativeness, and an innovation's rate of adoption. A social system means a set of interrelated units that are engaged in joint problem solving to accomplish a common goal. (Rogers 2003, 35–38.)

Diffusion and adoption are regarded as two sides of the same coin, meaning that diffusion of an innovation occurs through its adoption by users (Conway and Stewart 2009, 10). The adoption process is influenced by several characteristics, to which attention needs to be paid when launching a new innovation (Kotler and Keller 2006, 659). Some of these characteristics are differences in the individual readiness to try new products, the effect of personal influence, and differing rates of adoption (Kotler and Keller 2006, 659). Diffusion of innovations, like in this case; more sustainable approach to food sys-

tem, results from a variety of individual decisions that are often a result of comparing the uncertain benefits of an innovation with the uncertain costs of adopting it (Shin 2009, 174). Adopting innovation usually is reliant on the adopters' or rejecters' worldview and their cognitive capabilities.

The adopters of innovations are categorized typically as the innovators, early adopters, early majority, late majority, and finally the laggards. According to this model, in the beginning there are only the most innovative people who are creating and willing to adopt an innovation, but eventually, over time, an increasing number of people start adopting the innovation. At some point, the number reaches a peak, and then starts diminishing until there are only few non-adopters remaining after the laggards. Adopter categorization is presented in Figure 4. (Kotler and Keller 2006, 659.)

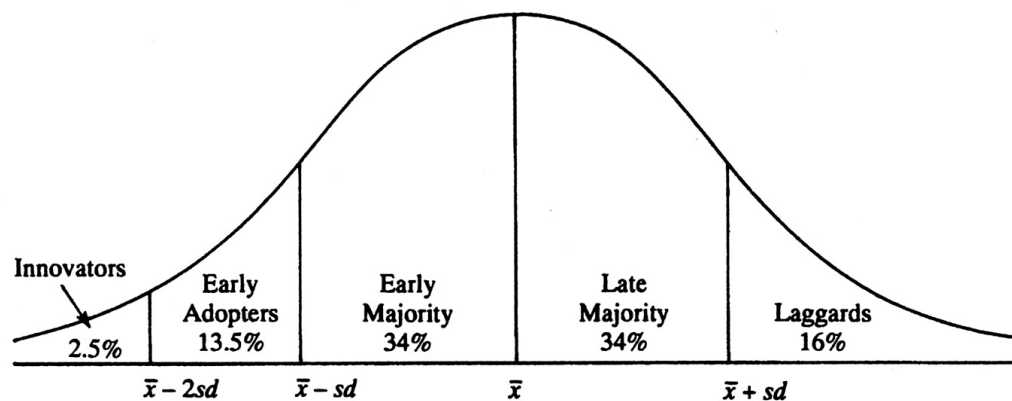


Figure 4. Adopter categorization on the basis of innovativeness (after Rogers 2003, 281).

Innovation is diffused over time, and one crucial concept in understanding the social nature of the diffusion process is called as the critical mass. The critical mass means the point after which further diffusion becomes self-sustaining. On the innovation diffusion curve, the critical mass is presented in Figure 5. When the critical mass is reached, the innovation diffusion is usually at the point where the early majority is beginning to adopt the innovation. (Rogers 2003, 343–345.)

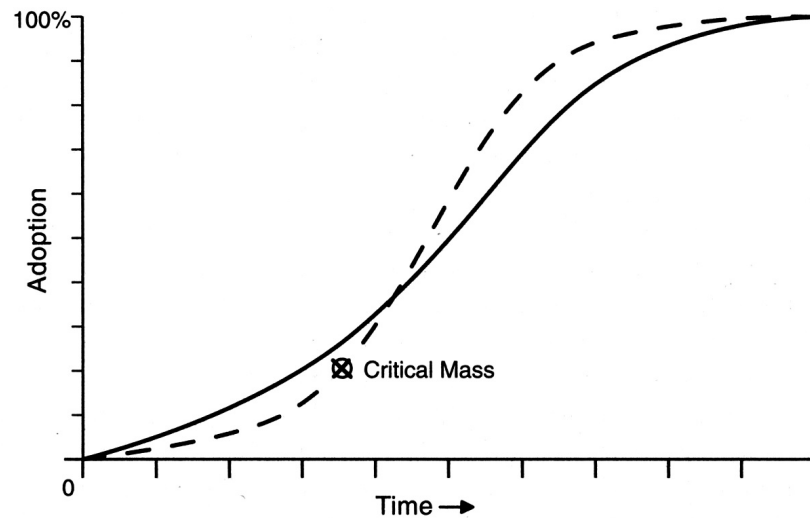


Figure 5. The rate of adoption, showing the critical mass (after Rogers 2003, 344).

2.1.2 Innovation resistance

Many of the innovations encounter innovation resistance since the adopter groups have different levels of resistance. The timing of diffusion and adoption has an effect also on these variations of resistance level. Innovators perform usually low amounts of resistance, and they adopt innovation easily. Laggards, on the other hand, adopt innovations very slowly, and the process takes a lot time, or does not even happen at all. The resistance of other adopter groups is placed between these extremities. (Ram and Sheth 1989, 6.)

The reason for innovation resistance is stated to be that innovations tend to create change in the individuals' life and routines (Ram and Sheth 1989, 6). In fact, innovation resistance is summarized in general as: "The resistance offered by consumers to an innovation, either because it poses potential changes from a satisfactory status quo, or because it conflicts with their belief structure" (Ram and Sheth 1989, 6). Adopting an innovation might lead to changes, but these changes may also be a requirement for a successful adoption of innovation (Rogers 2003, 176). Understanding radical innovations might be hard since they introduce new categories and relations that are not present in individual's existing schemas (Rindova and Petkova 2007, 222). Innovations that create a considerable change to individual are also said to be discontinuous (Ram and Sheth 1989, 7). The higher the discontinuity of an innovation, the higher is the expected

resistance from adopters (Ram and Sheth 1989, 7). Another very typical explanation for innovation resistance is that an innovation might conflict with individual's prior belief structure (Ram and Sheth 1989, 7; Kleijnen et al. 2009, 344).

2.1.3 Characteristics of innovators and early adopters

This study concentrates on understanding the innovators and the early adopters, and therefore, it is necessary to describe the typical characteristics of those groups. Innovators are the first two and a half per cent of consumers who adopt an innovation (Rogers 2003, 281). They are typically technology enthusiasts, who enjoy of tinkering with new products and master their complexity (Kotler and Keller 2006, 660). They have also a passionate interest in new ideas (Conway and Steward 2009, 155). Innovators are venturesome and daring, and they also interact with other innovators (Bass 2004, 1826). The innovators' interest in new ideas leads them out of a local peer network and into wider social relationships (Rogers 2003, 283). Innovators are truly special consumers who have interests, needs and knowledge, which differ from typical consumers, and they play an important role in the diffusion process, since they are launching new ideas in the system outside of the system's boundaries. (Rogers 2003, 283.)

Innovators are considered to be those individuals who adopt an innovation independently when other members of their social system do not have an influence on their adoption behavior. This means that they do not feel an increasing pressure to adopt an innovation, when more members of their social system adopt the innovation. On the contrary, the effect might be almost the opposite. (Bass 2004, 1825–1826.)

Early adopters are the following 13.5 % of individuals who adopt an innovation after innovators (Rogers 2003, 281). Early adopters are opinion leaders, since the potential adopters look to early adopters seeking for advice and information about the innovation. One crucial difference between innovators and early adopters is that, when innovators are regarded as cosmopolites, early adopters are seen as local actors and a more integrated part of the local system than the innovators are (Rogers 2003, 282). Earlier adopters tend to have a higher socio-economic status, be better educated, be less dogmatic and more open to change, be more able or willing to cope with uncertainty and

risk, be more interconnected with their social system, and be actively engaged in information-seeking activities compared to those groups that adopt innovations slower than early adopters (Conway and Steward 2009, 157).

Since early adopters are used often for seeking advice, utilizing them as opinion leaders, as well, can accelerate the diffusion process. Early adopters are individuals who search for new technologies that might give them competitive advantage. They are not very price sensitive and are ready to adopt new products quickly when given personalized solutions and good service support. (Kotler and Keller 2006, 660.)

On the other hand, the early adopters can be defined also as imitators, since they undoubtedly vary from the innovator group in their willingness and ability to adopt innovations. Compared to innovators, these groups are influenced in the timing of adoption by the pressures of their social systems, as well as the decisions of other members in their social system. The pressure tends to increase for later adopters with the number of previous adopters. (Bass 2004, 1825–1826.)

2.1.4 The role of schemas in innovation adaption

Individuals adopt innovations differently, and one affecting factor on adopting new ideas is proposed to be individual's schemas. It is also suggested that novel innovations, which can create large environmental changes, might complicate organizations engaging in coordinated actions, since the actual meaning of the innovations might stay unclear (Kaplan and Tripsas 2008, 800; Tripsas and Gavetti 2000, 1148). It is argued that schemas are essential to the ways individuals deal with cognitive challenges. (Bingham and Kahl 2013, 14.)

In fact, the changing environment and the new way of doing things may not be itself the obstacle that creates difficulties: instead of the actual change, it might be the executives' cognitive assessments of the change (Kaplan 2008, 729). To accelerate the food system's change, more sustainable approaches for food system are needed to obtain the given and presenting schema status. Some studies suggest that with the accumulation of experience and understanding, a given schema achieves a stable position because the

categories and relations comprising schemas become difficult to change (Dane 2010, 579; Bingham and Kahl 2013, 15; ref. Fiske and Taylor 1984).

Usually schemas emerge through a three-phased process. A schema emergence begins with assimilation. The second phase is deconstruction that facilitates differentiating an assimilated schema by assisting in creating a new schema. Finally becomes unitization that is a phase where the new schema is solidified. (Bingham and Kahl 2013, 15.)

Making linking analogies between past solutions and a novel thing helps the schema emergence process to some extent. A familiar analogy gives an emergent schema initial appeal at the cost of pushing aside the emerging schema's differentiating categories and relations. Although familiar analogies help in initiating the recognition process of a new schema, they also might have negative impacts on the schema's emergence, since the familiarity pushes into the periphery of the schema those categories and relations which capture what truly is unique in the novel approach. Consequently, in order to fully emerge, a new schema needs to be seen as conceptually separated. (Bingham and Kahl 2013, 19–22.)

A new schema develops further through the deconstruction of the existing schemas. Schemas meaning is to provide simplified representations of the world that allow more efficient processing of complex information (Bingham and Kahl 2013, 28; ref. Fiske and Taylor 1984). The deconstruction process, regardless of its importance to schema emergence, does not result in a new, stand-alone schema, since the categories and relations within the conceptual focus still remain with the preexisting schema. Categories and relations are more likely to become deconstructed when they become more general and less specific. Multiple analogies are suggested to exist and also persist; the new schema does not replace the old one immediately. Consequently, the new schema might not emerge as a stand-alone cognitive unit until late in its developmental process. The more connected a group of categories and relations become, the stronger they emerge as a stand-alone cognitive-unit. Individuals probably have different analogies and the assumption is that individuals process their analogies sequentially and focus on one that fits a new situation in the most suitable way. Consequently, individuals may act out dif-

ferently at a collective level (Bingham and Eisenhardt 2011, 1460; Bingham and Halebian 2012, 164). (Binham and Kahl 2013, 26–29.)

The schema emergence indicates that individual's cognitive capabilities cannot be neglected. The role of schema emergence in innovation adaption might be crucial on individual level and succeeded schema emergence can help the food system's sustainable approaches gaining larger ground. The effect of learning in adopting innovations seems to be crucial. If the change, occurring when novel innovations are launched, is made better acknowledged, the resistance towards innovations might decrease.

2.2 Change and the resistance to change

The concept of change is, by its most simplified way, to make something differently (Robbins et al. 2010, 518). It is inevitable that something should be done differently if the mean is to provide a more sustainable food system for the future generations. To understand the processes of developing the food system towards greater sustainability, it is also necessary to understand that the ideas of innovation and change are bundled proximately together.

Change comes in different shapes, sizes, and forms, but usually the change is categorized as a planned change or an emergent change. An emergent change emphasizes the change as never-ending and always-present force. To cope better with change's ever-present nature, the change should be seen as an everyday routine (Lawrence et al. 2006, 50). The planned change term is determined for the purpose to distinguish change that is consciously embarked upon and planned by someone (Burnes 2000, 264; ref. Lewin 1943). Also Robbins (2010, 518) specifies the planned change to be change activities, which are intentional and goal-oriented. According to Lewin (Burnes 2000, 270; ref. Lewin 1947), a successful change involves three steps: firstly, unfreezing the present level; secondly, moving to the new level; and thirdly, refreezing the new level. The planned change approach highlights change as a process. Although the planned change approach guards its place in certain situations, a number of writers state that in the current world of turbulent and unpredictable circumstances, assumptions of change as a clear process are increasingly shaky (Burnes 2000, 283). For that reason, in this study

the emergent approach is taken into more precise consideration instead of the planned change.

Regardless of the form of change in question, change needs to happen. As the innovation adapting process, so the change process also, encounters resistance. For example, sometimes reasoning can be vain to individuals (Governing sustainability, 47). Consequently, one of the most documented findings from the studies of individual behavior is that the individuals resist change (Robbins et al 2010, 519). Though, resistance is a natural part of the change process and is to be expected (Coghlan 1993, 11; Steinburg 1992, 28; Zaltman and Duncan 1977, 83). Resistance is usually explored from the perspective of those promoting change, and there is a need to understand resistance also from the individuals' defending position (Coghlan 1993, 11).

Individuals go through a reaction process, and they act differently when they are personally confronted with major change (Bovey and Hede 2001, 53). According to Scott and Jaffe (1988, 26), this reaction process is compounded from four different phases: initial denial, resistance, gradual exploration, and eventual commitment. These unconscious, reaction processes arise when individuals respond to the threats of change (O'Connor 1993, 35). Reaction processes are also referred to as defence mechanisms, such as denial or projection. Individuals unconsciously use well-developed and standard defence mechanisms to protect themselves from change and from the feeling of anxiety change causes (de Board 1978, 117). These defences can sometimes postpone or prevent an individual from adapting to change. When individuals indicate symptoms of resistance, it is important to understand the symptoms of resistance and the causes behind it (Bovey and Hede 2001, 535).

The reason for resistance initiates from the fact that change involves going from the known towards the unknown (Coghlan 1993, 10; Steinburg 1992, 28). Moving from familiar to unfamiliar tends to create anxiety amongst individuals. Usually individuals seek a comfortable level of arousal and stimulation and try to maintain that state as it exists (Zaltman and Duncan 1977, 83). Anxiety is central in all psychoanalytic theories, and when experienced, anxiety in an intense and acute form, it can be the most unpleasant feeling that a human being experiences (de Board 1978, 114). Even worse, anxiety

does not arise from perceived external dangers, but may also be experienced internally within the individual for no obvious reason (Bovey and Hede 2001, 534). Indeed, resistance to change is typically unnecessary and irrational, but whether the cause is real or imaginary, anxiety still produces the same psychological responses for individuals (Bovey and Hede 2001, 534).

Dealing with anxiety is complicated and intertwines tightly with understanding the human mind and its complexity. The individual's internal resistance to change is often caused by the surfacing of past experiences, fears, or worries the individual has experienced (Bovey and Hede 2001, 534). These unconscious forces of resistance can have more power on individual's behavior than consciousness forces of reason do (Wade and Tavris 1996, 520). In other words, hindering change is not a process that individual deliberately choose; rather a cause from shaking the individual's basic need for stability.

The resistance to change varies depending on the individual who is experiencing the change. Some studies show that irrational ideas are associated with the resistance to change (Bovey and Hede 2001, 379). Individuals who possess higher levels of irrational ideas are more likely to resist organizational change (Bovey and Hede 2001, 379). This conclusion refers well with the assumption that the change needs time and learning to succeed. It is suggested that the lack of effective communication about environmentally sustainable products might be the crucial factor in consumer acceptance (Whitson et al. 2014, 459). It is also suggested that educational strategies on the benefits of green products to individuals accomplish increasingly positive reactions from the individuals (Whitson et al. 2014, 459). Another research, made by Bovey and Hede (2001, 544) argues that the individuals who are unconsciously inclined to use maladaptive defences, are more likely to resist organizational change. Also as hypothesized, individuals with a tendency to unconsciously adopt adaptive defences, were less likely to resist organizational change (Bovey and Hede 2001, 544). This means that individuals, who are more open to change, are using adapting defence mechanisms, such as, humor or anticipation, when coping the qualm that change brings. On the other hand, individuals using maladaptive defence mechanisms, like denial or dissociation, are less receptive to change.

It seems that breaking the change resistance and innovation resistance are playing crucial parts in the development of more sustainable food system. It might even be so that since the food system's vulnerability is not seen in the western world yet, people are using defence mechanisms and denying the upcoming food exhaustion and meanwhile holding down the food system's change. Because of this resistance, it is important to learn how the innovators and early adopters think and how the change and innovation adaptation could be eased. In pursuance of doing this, the understanding of individual actions and behaviors rises to an even more significant position.

2.3 Emergent change

Emergent change approach originates from the persuasion that change cannot and should not be solidified, or seen as a series of linear events within a given period of time; instead, it should be viewed as a continuous and open-ended process. Emergent approach describes change to be a multi-level, cross-organization process in which iterative and messy fashions over a period of years are unfolded, and it comprises a series of interlocking projects. Change can be seen as an every-present feature that has no specific beginning or ending. The essence of change for emergent approach is the move from the familiar to the unknown. (Burnes 2000, 283–291.)

In emergent change, it is necessary to understand the context in which change takes place, in particular the interconnectedness of change over time, how the context of change shapes and is shaped by action, and the multi-causal and non-linear nature of change are emphasized in emergent change (Pettigrew 1990, 269). In other words, emergent approach underlines the developing and unpredictable nature of change. For emergent change, it is also characteristic that learning plays a key role in preparing people for, and allowing them to cope with, change (Burnes 2000, 290). In the emergent approach, strategies for change should be viewed as generic processes rather than step-by-step recipes or techniques (Langley 1999, 694). Precise advices to change may not bring the wanted result, since the today's world is also uncertain and turbulent by its nature. Recognizing the emergent, unpredictable aspects of change also goes hand in hand with the recent studies of sustainability realization in companies (Van der Heijden et al. 2012, 536).

2.3.1 Emergent approach for successful change

To succeed, changes need to emerge locally and incrementally to react to environmental threats and take advantage of opportunities (Burnes 2000, 284). Successful change is less reliant on detailed plans and projections than on reaching an understanding the complexity of the issues concerned and identifying the range of available options (Burnes 2000, 284). It is noteworthy also to realize that even a small amount of simple things combined in a certain way can create complexity (Langley 1999, 694). If the purpose is to create a culture for change, it means that change has to be a part of the way things are done, and it cannot be bolted on as an extra (Clarke 1994, 94). According to Beer, Eisenstat and Spector (1993, 5), the most effective way to promote change would be placing people in a new organizational context that imposes new roles, relationships, and responsibilities upon them. Even though the idea is from the organizational culture, this approach might be implemented also for individuals, as the organizations are compounded from the micros. In addition, the best way of implementing change seems to be linked to learning and early involvement, rather than to radical forcing.

Intended actions that interact with chance in environmental circumstances, may also lead to changes, which produce unintended consequences that, in turn, can be decisive in shaping the fortunes of an organization. In other words, the actual consequences of actions cannot be predicted precisely. During change, so called black swans can occur, which are events that are perceptual outliers. The black swans might have a drastic impact if, or when, they take place. During the process of a strategic change, for example in the innovation process, fostering sensitivity toward the role of black swans expresses awareness that sudden shifts, regardless how subtle, can cause even tightly integrated strategies unexpectedly falling apart. (MacKay and Chia 2013, 210-212.)

For achieving a thriving change, the change is needed to be a bottom-up change with early involvement and consultation (Burnes 2000, 291). Consequently, supporting openness, reducing uncertainty, and encouraging experimentation seem to be efficient mechanisms for promoting change (Mabey and Mayon-White 1993, 165). Supporting openness and reducing uncertainty, for instance, might help responding to change re-

sistance, since they bring a sense of familiarity to change and the natural anxiety of unknown reduces. Learning appears also to be in the focal point of the emergent approach, and it is also likely that individuals accept change easier if they learn change in its never-ending, and always present, nature.

Nevertheless, there are no universal rules regarding leading change; it only involves “linking action by people at all levels of the business”. Still, some writers suggest models for managing strategic and operational change that involve five interrelated factors:

- Environmental assessment: need for developing the ability to pile up and utilize information about one’s external and internal environments.
- Leading change: demand for the creation of positive climate for change, the identification of future directions, and the linking together of action by people.
- Linking strategic and operational change: a two-way process of ensuring that strategic decisions lead to operational changes and that operational changes influence strategic decisions.
- Human resources as assets and liabilities: pool of knowledge, skills, and attitudes are crucial to success, but they can also be a threat to the success if the combination is inappropriate or managed poorly.
- Coherence of purpose: the concern of the need to ensure that the decisions and actions that flow from the above four factors complement and reinforce each other. (Burnes 2000, 294.)

Despite of the suggestions, a successful change cannot be predicted by rules for leading change, and advices for managing change tend to be sometimes quite cursory or abstract in the practical world and even difficult to apply on a daily basis. (Pettigrew and Whip 1993, 6).

2.3.2 Change agents in emergent change

Whether it is about planned change, or emergent change, or another change category, someone needs to take responsibility for ensuring that change takes its place (Burnes 2000, 297). Individuals who act as catalysts assuming the responsibility for managing

change activities, are called change agents (Robbins et al. 2010, 519). As the change should be bottom-up oriented in the emergent approach, some researchers argue that using change agents will not adapt well with the unpredictable nature of change; according to the emergent approach, the complexity and multi-level nature of change mean that the change cannot be left to a few experts (Burnes 2000, 299). Despite the somewhat general thought that change agents are not desired in the emergent approach, many writers argue that the more complex the change process, the more difficult it is to achieve and the greater the need to utilize the skills and experience of a specialist change agent (Buchanan and Boddy 1992 25–28; Schuyt and Schuijt 1998, 405; Lichtenstein 1997, 400). Especially Buchanan and Boddy (1992, 25–28) propose change agents who identify the skills and competences necessary to achieve a successful change.

Change agents often play important roles by articulating and presenting ideas in ways that influence people and implement change (Caldwell 2003, 131; Lawrence et al. 2006, 64). Embedding sustainability by change agents is usually considered as an emergent change process that consists of small steps and is not predictable (Van der Heijden et al. 2012, 553). Some studies already show that although the emergent change process is rather unpredictable and intangible, the agents explain that the perceived downward and upward directions of their efforts are influenced by incentives when embedding the sustainability approach (Van der Heijden et al 2012, 554). The studies show that also the change agents are important links in the learning process of change (Van der Heijden et al. 2012, 553). Johnson (2008, 225) also suggests that promoting transformation is fruitful when there is a leader who eases the change and might even spread the change further than expected. An interesting deliberation for further consideration is whether the innovators can act also as change agents since they are, in fact, part of the bottom-up approach and also the specialists of their own sustainable method.

Another important point is the time-window for change. Time is the ether of change, and change has occurred against a background of time (VandeVen and Poole 2005, 1394). It is clear that the moment for change should be timed conveniently to achieve a successful change, but the task is easier said than done. We are still far from understanding the full import of time in the research of change and innovation (VandeVen

and Poole 2005, 1394). Two crucial questions remain: is the time ready for the change now and how would it be possible to increase the knowledge about timing in the innovations and changes?

2.4 The change of individuals

The focus of this study is on the micro-level. Since the micro-level is a small-scale individual or small co-operational level, it is crucial to understand the individual factors that are speeding up or decelerating the process of generating something new; in other words, the concept of the micro change. The actual pioneers and their way to lead the change are also in the crucial part of pursuing change forward. Some leaders' characteristics tend to appeal to people more than those of others, and they are often categorized as charismatic leaders. These charismatic leaders might accelerate the change significantly, and therefore, the essence of charisma, charismatic leaders, and also the idea of pioneers acting as charismatic leaders are examined in this chapter. Why some people tend to act beyond their immediate self-interests while others do not, is also under a special interest. This chapter scopes what are the barriers and advantages of entering micro-markets.

2.4.1 Micro-change

The concept of a micro-change means the change that happens when an individual starts to act differently than before. The micro-change is under a special interest since the beginning of the change lays usually in the minds of the individuals. Individuals even invent new innovations, and in suitable conditions individuals can change the whole presenting status quo with their actions. Furthermore, the decision of adopting and accepting something new depends on individuals and their reactions to the new style of practice. For instance, it is stated that at the micro-level individuals need to adopt and internalize new practices profoundly to make them effective (Millar et al. 2012, 494). Some scholars also argue that individual's commitment to change is a central component in the innovation implementation behavior (Klein and Sorra 1996, 1058).

Several studies suggest that the individuals and their thoughts cannot be bypassed anymore. According to Abell (2008, 490), the macro-model is ruling the presenting literature, and it is needed to change, as the time is to turn the attention on the micro-level. Felin and Foss (2005, 452) argue that new routines are created, emerged, and changed by individual actions. Dopfer et al. (2004, 273) state also that the first adopter, or innovator, carries a new rule of doing things and thus has the potential to develop new capabilities and engage in new interactions. These arguments strengthen the assumption that sustainable changes and developments can be emerged from individuals and also routinized and mainstreamed by them.

It is acknowledged that individuals can create visions if they are willing to learn. Furthermore, individuals' brains are flexible to adjust those visions quite rapidly if people want to react on feedback on previous actions. For this reason, the individuals' changes can happen quickly in suitable conditions. Interestingly enough, the individuals' visions can be considered as collective also. (Mintzberg and Waters 1985, 261–262.)

Individuals tend to have covenantal relationships, which are defined to be the exchange of ideological currency from which social benefits can be derived (Hernandez 2012, 174). Therefore, many individuals bundle together with another party, for example with an organization, and begin to sense moral obligations towards this party (Hernandez 2012, 174). These obligations might not be written into formal agreements, but nevertheless, they influence as strong determinants of organizational behavior (Hernandez 2012, 174). For covenantal relationship it is especially characteristic that it involves the pursuit of a cause that contributes to ongoing social welfare, and furthermore, individuals express their mutual obligations to this relationship through their willingness to sacrifice short-term personal gains for longer-term, generally beneficial collective achievements (Donaldson and Davis 1991, 50; Donaldson and Preston 1995, 82).

The micro-level creates firm-level and social-level outcomes, and even causally produces strategic phenomena, but it is still unclear how these phenomena emerge from individual actions. (Abell et al. 2008, 491). These concealed elements of underlying micro-foundations cannot be disregarded anymore; on the contrary, they need to be revealed (Abell et al. 2008, 490). Also Langley et al. (2013, 10) think that individuals play a cru-

cial role as key actors in many of the recent studies, but still there is a certain lack of analysis focusing on the individual level itself. These researches implicate that there is a solid need for analysis to understand the inducements of individuals better.

At this point it is noteworthy to indicate that individuals, sure enough, are not a homogeneous group, which thinks and acts, and changes, as one. Individuals have different cognitive skills and different kind of personalities, and their reactions to the surroundings varies highly. It is said that an individual has an internal and external structure: the internal structure is built upon cognitive and imaginative capabilities, in other words, the microagent, also regarded as individual, has a mind, and the external structure is built from specific interactions with other agents, meaning that the microagent is surrounded by a society (Dopfer et al. 2004, 269). The culture and level of education of an individual usually affects also their ideology. For example, differences in education, culture, and other factors that have influenced the individuals, have an impact on the individuals' perspectives on sustainability (Millar et al. 2012, 494).

Some people can see the change as a pleasant opportunity for something new, while other feel unpleasant when change occurs. As mentioned earlier, among the change resistance, individuals who use maladaptive defence mechanisms are more likely to create resistance to change. How individuals see the world is strictly related to the individual's cognitive abilities, and those abilities are also the reasons why some people create and adopt new things. Some writers state that the ability to recognize opportunities depends in part on the individual's capabilities and extant knowledge (Teece 2007, 1323). It is argued that opportunity discovery and creation can originate from the cognitive and creative, called typically the right brain-side, capacities of individuals (Teece 2007, 1323). According to Teece (2007, 1323), opportunity creation and discovery by individuals require both access to information and the ability to recognize, sense, and shape developments. Felin and Foss (2005, 441) also state that the identity, learning, knowledge, or capabilities fundamentally begin with and understanding the individuals that compose the whole, specifically their underlying nature, choices, abilities, propensities, heterogeneity, purposes, expectations, and motivations.

Even if the micro-change is the focal point of interest in this study, individuals live in the world that is surrounded by interaction. Individuals are part of a larger scale. In fact, the most straightforward way to move from the micro-level to the macro-level is built on the assumption that the whole, macro, is the sum of its parts, micros (Alexander et al. 1987, 376). Macro-level is a large institutional level including the whole society, and on the macro level are also other ruling factors than just the micros. Still, when macro-level is examined and divided into parts, small enough, behind every institution are eventually individuals. Generalized, it does not matter how large entity is in consideration; the macro-level is only the repeated experiences of large numbers of persons in time and space (Alexander et al. 1987, 195). And for instance, if the members of an organization share a vision, in this case about a sustainable food system, and identify so strongly with it that they pursue it as an ideology, they are bound to exhibit patterns in their behavior, so that clear realized strategies can be identified (Mintzberg and Waters 1985, 262). These can be called ideological strategies (Mintzberg and Waters 1985, 262). It is crucial to understand that successful micro-changes lead the way towards uniting individuals to a group that can have a whole strategy built upon the quest for a more sustainable food system. Individuals' actions are needed to be solved to make the larger-scale change happen after successful micro changes.

As mentioned above, the easiest way to approach the micro-thought is to realize that the sum of the micros comprise the large macro-level (Dopfer et al. 2004, 264). There is no macro without micros. Dopfer et al. (2004, 271) also claim that the meso-phase, between the micro and macro, is the core of change, and without the understanding of the meso-phase there is no development from the micro-level to the macro-level. All in all, the micro-level is essential, but understanding only the micro-level is not enough. Since some studies indicate that the meso-phase is the most crucial part of the development of the micro-level to the macro-level, both of these phases should be mapped in addition to the micro-level. The link between the micro-level and macro-level is also a necessary part of innovation adoption and change accepting to the critical mass, so in the future, the micro-macro link should be under a special interest.

Only way to map out the micro-level deeply is to understand the human behavior and realize the diversity of cognitive variety; some individuals are more adaptive for chang-

es and have more skills to create and sense creating something new. As seen also in the characteristics of innovators and early adopters, some cognitive features, and characteristics of personality, are pursuing people towards change and unknown more than others. Selecting those individuals who have the tendency to use their “right-side-of the brains” to the implementation of the food system’s change might lead to a success in that group of individuals. Though these innovators might act as change agents, the actions of the individuals who have resistance to change are being obvious roadblocks to the sustainability development. Organizational development has taken actions to remove the change resistance, but how can the sustainability approach do the same? Organizational change has an ongoing threat to the individual in the form of losing something important, for example one’s job position, while the threats of failing sustainable development are too abstract, and yet also invisible, to the individuals in the western world.

2.4.2 Pioneers as charismatic leaders

The pioneer actors who have created or adopted something innovative can be sometimes considered also as charismatic leaders. As earlier implicated, in the chapter of characteristics of innovators, innovators are said to be truly special consumers who have interests, needs, and knowledge, which differ from typical consumers (Rogers 2003, 298). Charismatic leaders might be an irreplaceable asset when managing change forward. One explaining factor about what motivates followers to outreach their own self-interest for the sake of organizational goals is transformational leadership (Hernandez 2012, 187. ref. Bass 1985; Bass and Avolio 1994). It is also suggested that charismatic leadership is especially effective during the times of change (Herold et al. 2008, 346).

Charismatic leaders are often described to be envisioned individuals with exceptional, almost mystical, powers, and they inspire their followers to support them passionately (Weber 1947, 361). Charismatic leaders are seen as set a part from ordinary people, which usually stems from their idealized vision (Conger and Kanungo 1987, 644). They are suggested to be capable of fostering higher levels of employee and team performance in organizations (DeGroot et al. 2000, 364). Charismatic leaders differ from other leaders by their ability to formulate and articulate an inspirational vision and by be-

haviors and actions that nurture an impression that they and their mission are extraordinary (Conger et al. 2000, 748). The actual essence of charisma is very broad-spectrum. Charisma may appear as beauty or physical stature, as an incisive intelligence or some special talent, but is as likely to manifest itself in a figure of no special physical appeal and lacking a first-rate intellect (Peters 2010, 517). It is also remarkable that charisma itself is not necessarily something described as ultimately good, likable, or generous in spirit (Peters 2010, 517).

In this turbulent and modern world of change, it is suggested that the essence of charismatic leader depends on how widely the leaders demonstrate certain change-promoting behaviors, which are defined as efforts to promote and support change effectively (Herold et al. 2008, 347). These behaviors contain communicating with all affected by the change, making it clear that the change is really necessary, depicting the future, and removing obstacles that hinder accomplishing the communicated goals and vision (Kotter and Cohen 2002, 82).

In the formation of charisma sensations, leadership behaviors rise in significant positions (Antonakis et al. 2011, 374). It is proposed that followers perceive leaders as being charismatic when they display the three following behaviors: first, the leader evaluates the status quo in terms of resources, limitations, and followers' needs (Conger and Kanungo 1994, 442); second, they formulate and communicate compelling goals for the collective; and third, the leader builds trust in these goals and demonstrates through exemplary actions how the goals can be accomplished (Conger and Kanungo 1994, 442). Followers then interpret those leader behaviors as expressions of charisma (Conger and Kanungo 1994, 443). It is argued that leaders' change-promoting behaviors have key elements that can enhance charisma, such as "inspiration through vision, empowerment through involvement, and being sensitive to followers' needs" (Herold et al. 2008, 348).

The reason why researchers and practitioners alike have been interested in charismatic leaders is because of their apparent influence on group outcomes (Bass and Riggio 2006, 3). Charismatic leaders tend to attract and motivate individuals to follow them. Charismatic leaders are able to create images of themselves as masterful leaders orchestrating and channeling the mood of followers in harmony to the victory over seemingly

insurmountable challenges and to achieve performance beyond expectations. These almost mythical characteristics appeal deeply to others, and consequently, lead them to follow the charismatic leader. (Sy et al. 2013, 463.)

From the motivational perspective of the individual's inside-vision, perceiving a leader as charismatic implies that the followers have linked their inside-vision to the mission introduced by their leader (Shamir et al. 1993, 583). Thereby, efforts and goals that are same as the leader's mission increase in meaning and raise the value of individual's intrinsic motivation (Awamleh and Gardner 1999, 367; Bono and Judge 2003, 555). As a result, followers are likely to identify with the change goals assessed by charismatic leader, thereby increasing their motivation and willingness to support the goal and commit to the change. Consequently, charisma impressions result followers to shift the focus from self-interest to collective interest (Conger and Kanungo 1987, 639; De Cremer and van Knippenberg 2002, 859). Eventually charismatic leaders convince the followers to be more willing contributing to the benefit of the organization and committing themselves to proposed changes. Some researchers have supported that the individual-level has a clear linkage between charisma impressions and feelings of commitment. For example, leader's charisma makes the followers feel strongly bonded or linked to the organization (Mathieu and Zajac 1990, 171). Charismatic leadership is usually included as a part of transformational leadership (Bass and Riggio 2006, 5). The commitment to change also results especially from the perceptions of transformational and charismatic leadership (Herold et al. 2008, 349.); in other words, from a leadership style that has charisma as a component (Lowe et al. 1996, 420). In addition, transformational leadership is argued to be strongly related to the followers' innovation implementation behavior and that the nature of this relationship is moderated by the followers' levels of perceived climate for initiative, and consequently, commitment to change fully mediates the relationship between transformational leadership and followers' innovation implementation behavior (Michaelis et al. 2010, 408).

The psychological dynamics of transformational leadership can be enhanced to ease the food system's transition. For instance, the cognitive pathway doing collectively good behaviors might ease to delineate the beneficiaries who should be included when developing a compelling vision. Using the affective pathway to collective behaviors might

harness the use of emotional arguments to inspire followers. It is noticeable that the role of psychological ownership is a crucial factor in creating collective behaviors and in explaining the matter how charismatic leaders can create a sense of shared meaning, which drives followers' motivations to fulfill the leader's vision as if the vision were followers' own. (Hernandez 2012, 187.)

Consequently, leaders' change-promoting behaviors are positively associated with their followers' impression that the leader has charisma. A follower's impression of leader's charisma is positively related to the individual's commitment to change that, in turn, is positively associated with the team performance. Additionally, the association between leaders' change-promoting behaviors and team performance occurs because followers individually perceive their leaders as charismatic and thus become more committed to change. (Nohe et al. 2013, 385.)

It is likely that not every pioneer actor is truly a charismatic leader, but those who are, should be harnessed to lead the way towards a more sustainable food system. Undoubtedly these charismatic actors could ease the task of getting others involved too. If pioneers act as charismatic leaders, overcoming the resistance to change and innovations could be decreased significantly. Nevertheless, there should be some caution always with the charismatic leadership. Charismatic leaders are able to be so appealing that followers might forget the underlying reason why they in the first place wanted to follow the leader; it is notable that not every charismatic leader is a good leader with glorious purposes. Some charismatic leaders have tendencies to try to maintain their gained status in any way possible. Those leaders are afraid of losing their privileged status as leaders (Kellogg 2012, 1562). Regardless of the leader's underlying inducements, the charismatic leadership and its appeal to others seem to be connected strongly with individuals' motivation, which is also a key factor in moving individuals to new approaches for food system.

2.4.3 Individuals and stewardship

One main element seems to be making individuals act beyond their own self-interests. Stewardship is defined as the extent to which an individual willingly subjugates one's

personal interests to act in the protection of others' long-term welfare. Consequently, stewardship behaviors are determined to be a type of prosocial actions, which intend to have a positive effect on other people (Penner et al. 2005, 366). For instance, some researches have studied children's reactions on prosocial behavior through their emotions; children tend to act more prosocially when they are inclined toward positive emotionality (Penner et al. 2005, 374). On the other hand, whether children, inclined toward negative emotionality, are more or less prosocial depends on the specific type of negative emotions they are facing and their ability to regulate their emotions (Penner et al. 2005, 374). (Hernandez 2012, 173–175).

It is proposed that stewardship behaviors are created by two distinct psychological mechanisms. Firstly, individuals value personally actions that benefit the long-term welfare of others and are guided in their behavior by this "other-regarding" perspective and long-term orientation (Frankforter et al. 2000, 323). In decision-making processes they place a greater utility on serving the ongoing needs of others and preserving collective resources than on ensuring personal gain. Secondly, an affective sense of engagement with others prompts individuals to feel persuaded to positively influence the collective. Hence, individuals' sense of obligation is created in part by their emotional connection to the beneficiaries of their decisions. The meaning of stewardship behaviors is to serve the interests of multiple individuals; self-sacrificial behaviors are aimed at benefiting collective interests. (Hernandez 2012, 175).

The structural factors of stewardship are suggested to govern the influence on the cognitive and affective mechanisms that accelerate stewardship behaviors (Hernandez 2012, 179). It is noticeable that when driving the pursuit of a common value or cause, leadership rises into an essential role in building relationship-centered collaboration through shared influence processes (Hernandez 2012, 187).

It has been argued that when considering the trade-offs between individuals' personal gain and the collective welfare of beneficiaries, individuals consider the long-term consequences of their actions to evaluate the costs and benefits of those actions on beneficiaries. However, past research on intergenerational issues has showed that this decision-making process does not occur within a social or temporal vacuum. Even though

individuals may wish to treat others as they would have liked to have been treated themselves, it is argued that they are more likely to respond to how they were actually treated by previous others (Wade-Benzoni 2002, 1014; Wade-Benzoni et al. 2008, 242). Consequently, how individuals have been affected by the outcomes created by past decision makers can influence their current decisions, which subsequently will affect future beneficiaries. Past generations are able to pass on benefits, or burdens, to future generations as a matter of retrospective obligation, or retaliation, for the good, or bad, received from past generations (Wade-Benzoni 2002, 1014). (Hernandez 2012, 184).

One crucial question arises: would it be possible to ease the micro-change simply by doing good actions? Emotions that are felt during the childhood can have an impact even on adulthood actions. Positive emotions tend to create prosocial actions while negative emotions might block out individual's conscious will to act on good purposes. If individuals tend to act based on how they have been treated before, the first step towards changing individuals' acts should be the change on how other people treat each other. Consequently, the trend of doing good creating more good things seems to be the fruitful way of proceeding the change towards greater sustainability. In addition, also Hernandez (2012, 185) suggests repeating good actions to create more collective behaviors. Unfortunately, the change might take some time if there are no other drastic manners to accelerate the change, since today's actions might not show until the next generation.

2.4.4 Entering the micro-markets

This study states that pursuing towards greater sustainability starts from the pioneers of food system who are doing the grass roots work to develop the food system to be more sustainable. Currently, there are some actors who are trying to generate the food system with their personal contribution. These pioneers can be often considered also as green consumers. It is proposed that the most important predictors of ecological action are open or creative thinking and post-materialistic value orientations (Reijonen 2011, 405; ref. Grob 1995).

Green consumers are consumers who make decisions that are affected by green values, and those consumers, for instance, are willing to pay a higher price, as long as the product matches to their idea of a green product (Whitson et al. 2014, 464). Even though the group of green consumers is not homogenous, it is assumed that over half of the people, approximately 54%, are leaning towards green consuming (Juutinen and Steiner 2010, 56). From this population, only about 2% is committed and acting with sustainable values as a dominant value (Juutinen and Steiner 2010, 56). Consequently, green consumers have a wide potential in markets even though their consuming actions are still not very distinguishable (Juutinen and Steiner 2010, 56). Green consumers are often categorized as young, well-educated, and affluent urban dwellers (Khosla et al. 2005, 752). On the contrary to the general presumption, environmental concern and behavior were actually stronger for persons above 50 years of age (Juutinen and Steiner 2010, 56; Khosla et al. 2005, 752).

One way of looking the food system's generation is to see the pioneers and early adopters as a green-market niche. The entire markets cannot be reached, and the markets are outright very heterogeneous (Kotler and Keller 2006, 25). Consequently, by choosing the most suitable customer segment, or even smaller customer niche, and appealing to the potential market niche, a successful change of food system might be easier to achieve. If even half of the consumers affected by green values will be reached, the crucial mass is then achieved, and the change becomes inevitable.

Accelerating the food system's change could be approached by bringing more information and emphasizing the process of learning. As stated before, there are some green actors and green consumers who create more sustainable options for other individuals acting, for example, as a private entrepreneur selling organic food. If those kinds of options are multiplied, maybe the amount of green consumers also multiplies. This means that sustainable approaches should enter the markets increasingly. Since these approaches are still quite limited and they have not reached the critical mass, the terms micro-markets and micro-entrants are convenient for such actions. Micro-players are not a separate part of markets; on the contrary, they may exist in many industries. They include micro-investors, experts, artists, artisans, and those who enter markets with

highly customized offerings, micromerchandizing, and tailored business solutions (Markman and Waldron 2014, 183).

The lack of comprehension of how individuals interact and interpret relational information across networks is issued to affect negatively their ability to foster the psychological factors that give rise to collective behaviors (Hernandez 2012, 188). On the other hand, there is some proof of a relatively unorganized movement with limited power, resources, and support that was able to instigate change in an established organizational field, even though elites in the field were attempting to defuse the movement through cooptation (Van Wijk et al. 2013, 382).

There are many theories about entering the markets generally, but it is important to notice that common theories of entry are simply not tinted enough to clarify the micro-entry and how very small startups enter markets, which are dominated by especially large incumbents (Markman and Waldron 2014, 180). The difference between generalists, specialists, and micro-entrants is that generalists and specialists sell large volumes of a reduced number of popular items, while micro-entrants pass through markets by selling small volumes of so called hard-to-find and “non-hit” items to many customers (Markman and Waldron 2014, 184). Ecosystems’ modularization and integration moderate the micro-entry; micro-players are motivated on entry, whereas generalists focus on modularity, hence, micros entering markets makes them expand (Markman and Waldron 2014, 190).

Micro-entrants are seen so insignificant that their initial attempt rarely disturbs market equilibrium or interrupts industry logic (Markman and Waldron 2014, 188). On the other hand, the research presumes that when the incumbents have a reaction, incumbents react as a group to entrants, and that the strongest and fastest reaction usually comes from weaker incumbents, since the weaker incumbents face the most intensive threat from the micro-entrants (Markman and Waldron 2014, 189).

Regardless of the micro players’ insignificance, they have some clear advances when entering the markets. For example, specialists tend to occur strong barriers to entry, whereas micro-entrants target the narrowest market niches, and, because they champion

different value propositions, they are relatively unaffected by traditional entry barriers (Hochberg et al. 2010, 830). In contrast with specialists, micro-entrants often lack scalability and migratory capability, so initially, their attempts do not encounter almost any resistance. However, after entering markets, micro-entrants avoid growth outside their market niche. (Markman and Waldron 2014, 184.)

Efforts by movements to impose constraints on organizational fields and by incumbents to block the entry of new actors, ideas, and practices into their field are typically emphasized (Van Wijk et al. 2013, 382). On the contrary, sometimes the stimulating effects of both activists' and incumbents' agency and innovations on field evolution, as relations and ideas flowed freely through jointly created fruitful structures and generated energy for change (Van Wijk et al. 2013, 382).

Increasing the amount of micro-players entering the markets might tempt more individual actors to make their decisions on the behalf of the sustainable food system. Micro-entrants can enter the markets easier than generalists, and they are rarely confronted rivalry with incumbents, which creates a fertile ground for the entry and success. Even though micro-players are able to enter the markets, and they are relieved from the common entry-barriers, their actions are denounced by stagnation quickly after the entry. If micro-entrants are not willing to expand their growth outside their own, usually very narrow, market niche, conquering the large masses seems to be almost impossible.

2.4.5 Social entrepreneurship

Individuals' pursuit to act on good purposes, as other human motivations too, can be linked also to entrepreneurship. It might appear as a phenomenon called social entrepreneurship. Social entrepreneurship means the process of employing market-based methods to solve social problems (Grimes et al. 2013, 460). Social entrepreneurship highlights social mission, for instance eliminating poverty, alongside market-based organizing, and the embrace of a distinctive identity separates them from the organizations focused primarily on maximizing the shareholder value (Grimes et al. 2013, 460). Among individuals' motivations is compassion, which may act out as a driving force of doing good things. Compassion eases a required agency's engaging in social entrepreneurship

(Afuah and Tucci 2013, 460). Compassion has a possibility to become a more enduring prosocial motivation that tends to tap into an increasingly legitimate response to social problems (Grimes et al. 2013, 461).

In order to get individuals acting on social entrepreneurial opportunities, individuals are required to detect such opportunities and to believe that social entrepreneurship is not only a feasible but also a desirable approach for pursuing them (Krueger 1993, 9). It is argued that compassion encourages individual to explore the nature of perceived pain as well as its causes, thereby altering cognitive structures and making individual more aware of social entrepreneurial opportunities. It is also underlined that institutional factors condition the perceived appropriateness and the desirability of social entrepreneurship as an approach to addressing social problems. Even though compassion is acknowledged as the social entrepreneurship's thriving force, there still remains a need for a better understanding of how these micro-processes interact with macro-level institutions. (Grimes et al. 2013, 461–462.)

On the other hand, compassion can involve many negative consequences too, and it tends to overlap heavily with more basic concepts like empathy (Arend 2013, 313). In addition, compassion might also appear very momentarily (Arend 2013, 313). The effect of compassion is identified, now a better-defined and more profound characterized concepts, for example emotions and their underlying relationships with social entrepreneurship outcomes are needed to be mapped out (Arend 2013, 314).

Sometimes the focusing on an emotion rather than what actually drives it ignores other useful theories, for example, involving emotions and concepts such as “joint attention” and the neurobiological structures and processes that underlie compassion may be more appropriate targets for theory (Arend 2013, 314; ref. Seemann 2011). The crucial questions seem to be what drives the emotion and what distinguishes the role the emotion plays in the large scale of the focal phenomenon. Discussions can still not be found on what the optimal balance of social and economic benefits should be or how compassion influences that optimality. There is also some blurriness about what creativity in fact includes. (Arend 2013, 313–315.)

2.5 Motivation

The concept of motivation has already been lightly touched in this research several times, but the aim of this chapter is to create a more profound level of understanding the motivation as the catalyst of individuals' change. There are many things that might move individuals towards acting more ecologically. For example, sometimes awareness about environmental issues increases even within crises related to the environment (Juutinen and Steiner 2010, 53). A successful change needs the understanding of the human behavior, and consequently, understanding that the human behavior intertwines tightly with sociology and psychology. Some researchers even regard that the deep understanding of individuals and human behavior are the keys of developing micro-markets to macro-markets (Viswanathan et al. 2013, 9). Motivation is usually considered to be the driving force that makes individuals act on towards their goals. Motivation may vary, and there are several different motivation theories.

In this study, the Homans' social exchange theory is particularly important because it strives to clarify the nature of human behavior. Blau's extension to the exchange theory is also necessary while it explains how small-scale social exchange inevitably relates to social structures at a societal level. Although the actual micro-macro link is only acknowledged in this study and the research concentrates on the need of micro change, it is still essential to understand that the micro-level relates indisputably to the macro-level. For that reason, Blau's and Homans' theories are presented, since they set out the path for comprehending the connection between the micro and macro-levels.

In addition to the exchange theory, also the classical motivation theory is presented regarding individuals' needs and the hierarchy of needs acknowledged by Maslow. This theory helps comprehending the fact that individuals cannot always act as they wish. The last theory under a special interest is the intrinsic motivation theory. Intrinsic motivation highlights the individual's inherent motivation that can be a real catalysis for creating and accepting something new.

2.5.1 Exchange theory

One of the best-known behavior guidance theories is the exchange theory, originally developed by Homans and Blau. Exchange theory was introduced in the purpose of understanding human behavior, but also to increase the amount of wanted human behavior. Homans (1961, 13) explained social exchange as the exchange activity, tangible or intangible, and more or less rewarding or costly, between at least two persons. Cost was viewed primarily in terms of alternative activities or possibilities foregone by the actors involved. Reinforcement principles lead from the kind of behaviorism popular in the early sixties. Homans used the theories to explain the persistence of exchange relations. Behavior is a function of payoffs, whether the payoffs are provided by the nonhuman environment or by other humans. Homans' primary concentration was the social behavior that emerged as a result of the social processes of mutual reinforcement or the lack of it. Exchange relations could also terminate on the basis of the failure of reinforcement. (Delamater 2006, 54.)

Homans had five propositions: the success proposition, the stimulus proposition, the value proposition, the deprivation-satiation proposition, and finally the aggression-approval proposition. The success proposition stated that behavior that generates positive consequences is likely to be repeated. The stimulus proposition stated that behavior that has been rewarded on such occasions in the past will be accomplished again in similar situations. The value proposition defines that the more beneficial the result of an action is to an actor, the more likely that action is to be accomplished. The deprivation-satiation proposition, determined the stimulus proposition introducing the general ideal of diminishing marginal utility: the more often a person has recently received a particular reward for an action, the less valuable an additional unit of that reward is. The fifth proposition specified when individuals will react emotionally to various reward situations. People will become angry and aggressive when they do not receive what they anticipate. Regardless of Homans' behavioral background, he later argued that people can become angry when they do not receive a righteous rate of return and introduced the normative concept of distributive justice into his analysis of dyadic exchange. (Delamater 2006, 55.)

Blau polished Homans' theory a bit further and took deliberately a more economic and utilitarian view of behavior to the exchange theory. Blau's social exchange was a process of central significance in social life as underlying the relations between groups as well as between individuals. Consequently, one of the theory's characteristic elements was the underlining of the structure of associations larger than the dyad. The achievement was an attempt to build links between a micro-sociological theory of behavior and macro-social theory of social structure. (Delamater 2006, 55–56.)

According to the exchange theory, creating positive outcomes seems to be rather easy: repeating good actions creates more good actions. Although the exchange theory has many consolidations, there is also room for a glimpse of suspicion, since the exchange theory has so strong background in the 20th century behaviorism and it does not take individual's free will into consideration. Nevertheless, the theory is one of the most important theories, and one of the earliest initiatives in the pursuit of explaining the human behavior, and the effect of positive reinforcement.

2.5.1 Needs and Maslow's hierarchy

While understanding individuals seems to be the key to connecting the micro- and macro-levels, it is noteworthy that people are merely survival-focused and present-time oriented (Lewis 1966, 23). People would like to act on good principles but are not at any circumstance able to do that and markets respond into their immediate needs rather than their sustainable long-term goals (Viswanathan et al. 2013, 22). Though, it is still uncertain whether the food system change would speed up if the need for food would come more urgent in the developed countries.

Motivation is described as a reason for action directed toward a desirable goal, and motivation also tends to focus on individuals' behavior. Many theorists suggest that human needs and motives are inextricably linked; the relationship between them is in fact so close that it becomes extremely difficult to identify the precise differences that may characterize them. Motives initiate individuals' behavior and direct it towards specific types of activities. Amongst others, Hilgard (1975, 385) observes that a motivated organism will engage in an activity more efficiently than an unmotivated one. Wants have

been described as the initiating and sustaining forces of behavior; these may be characterized as “positive” driving forces that direct wants towards aims or “negative” forces such as fears or aversions, which lead wants away from aims. (Chisnall 1997, 41–54.)

It is suggested that specifically positive feedback (i.e. goal attainment) results in an increase in positive affect while negative feedback (i.e. goal non-attainment) results in both a decrease in positive affect and an increase in negative affect, within individuals, over time. Feedback may thus impact individuals’ self-regulation, work attitudes, and motivation through fluctuations in both positive and negative affect. (Ilies et al. 2007, 604–605.)

Some researches admit that it is difficult to appoint a simple, basic, list of human needs. Still, two categories may be seen: biogenic and psychogenic. The biogenic needs, also described as the primary needs, refer to the basic physiology needs that are related to the bodily functions such as hunger, thirst, sex, sleep, and exercise. When these biogenic needs are experienced, they tend to dominate individual’s attention. Once those needs are satisfied, individuals can again pay attention to other desires, which, initially, are less pressing in their pattern of life. Psychogenic needs, which are also referred to as emotional or psychological needs, reflect the complexity of human behavior. On the contrary to the primary needs, which are inborn and unlearned, a sophisticated structure of needs relating to social, cultural, emotional, and intellectual interests affects the behavior of individuals. It is notable that these desires are needed to be meaningful to individuals to make an effect. (Chisnall 1997, 41–55.)

One of the psychologists researching the motivation and needs was James Bayton, who has suggested that the various formulations of psychogenetic needs that have been indicated by psychologists and other researchers could be conveniently categorized as follows:

1. Affectional needs: the need to form and maintain warm, harmonious, and emotionally satisfying relations with others.
2. Ego-bolstering needs: the needs to enhance or promote the personality, to achieve, to gain prestige and recognition, and to satisfy the ego through domination of others.

3. Ego-defensive needs: the needs to protect the personality; to avoid physical and psychological harm; to avoid ridicule and “loss of face”, to prevent loss of prestige, to avoid or obtain relief from anxiety.

In offering these classifications of needs, Bayton cautiously remarked that an individual may be moved merely one need but, more usually, a combination of needs. In the complex of needs, there is often one that is the most dominant or “prepotent”. (Bayton 1958, 283.)

Maybe the best known theory regarding needs is the Maslow’s hierarchy of needs. He proposed that human needs develop in a sequence order from lower wants to higher wants. Once, for instance, hunger is satisfied, it no longer dominates the behavior of an individual, who is then free to satisfy, for example, social and cultural desires. Maslow’s hierarchy is presented in Figure 6 below. Maslow composed the following order of needs, which he divided into five main categories.

1. Physiological needs, e.g. hunger
2. Safety needs, e.g. security and order
3. Belongingness and love needs, e.g. sense of being part of a group
4. Esteem needs, e.g. status and importance in the eyes of others
5. Needs for self-actualization, e.g. personal fulfilment. (Chisnall 1997, 43.)

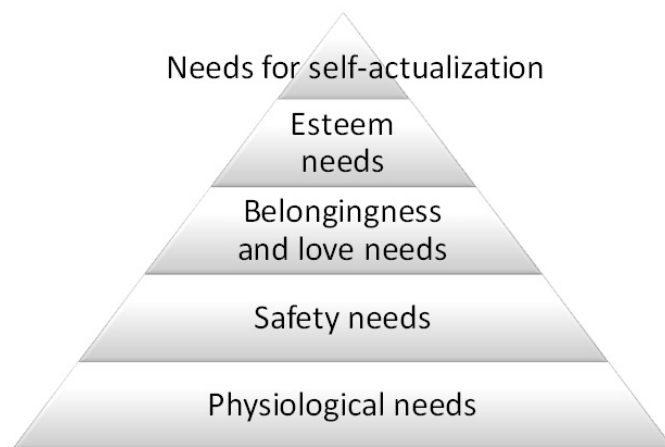


Figure 6. Maslow’s hierarchy of needs (after Chisnall 1997, 60).

Motivation theory concerning needs favors, at least to some extent, Blau's and Homans' reinforcement theory, since the need theory also pays attention to the impact of positive encouragement. The hierarchy model of motivation guards its place as well because it seems that individuals cannot satisfy different motivations at the same time and one of the many motivations tends to dominate. The idea of motivation being a result of needs and wants is classical, but also at the same time very old, and especially the Maslow's theory lies strongly to Freud's influence, whose concepts were deeply appealing to individual's emotions and rooted into people's needs. Consequently, Freud's theories are often criticized significantly.

Motivating individuals to the food system's more sustainable approaches can be managed by Maslow's hierarchy. It is notable that the need-theory points out the individual's need for basic safety, as it was acknowledged during the need for innovations and changes too. The crucial part of individuals accepting innovations, change, and motivating them seems to be maintaining, at least partially, the feeling of safety. Also, as said before, it is essential that people's "lower" needs are satisfied to motivate them to act towards sustainability. On the other hand, the sustainable approach should be raised as the dominating motivation instead of some else motivations regarding, for example, individual's self-esteem and cultural development. Need theories of motivation suggest also strongly that the positive wants that motivate individuals are more encouraging than the wants associated with fear and negative aspects.

Maslow explains only the connection of needs and motivation; consequently Homans' and Blau's theory explains only the effect of reinforcement to people's actions. Unfortunately, both of the theories show a significant lack of individual's inside-vision and free-choice, and for that reason, neither of them reserves a single-handed solution for motivating individuals. Motivating individuals might need deeper understanding of several motivation theories but also comprehending the uniqueness of individual's mind.

2.5.2 Intrinsic motivation

In order to comprehend better the individual's inherent motivation to act, explaining the intrinsic motivation is required. Intrinsic motivation refers to a motivation that engages

in an activity purely for the sake of the activity itself (Lepper et al. 1973, 129). When individuals are intrinsically motivated, they pursue activities for the interest and enjoyment those activities provide (Csikszentmihalyi 1975, 13), and they often perform them at pretty high levels (Amabile 1996, 7; Grolnick & Ryan 1987, 897). On the contrary, extrinsic motivation signifies for a motivation, which engages in an activity as a means to an end rather than an end in itself (Ryan and Deci 2000a, 60). When individuals are extrinsically motivated, they commit in activities in pursuit of rewards they desire, such as prestige, money, or journal publications (Abuhamdeh and Csikszentmihalyi 2012, 1). According to Deci and Ryan (2000, 229), the intrinsic and extrinsic motivation is grounded on that human beings are congenitally active, growth-oriented organisms, who are naturally inclined toward integration of their psychic elements into a unified sense of self and integration of themselves into larger social structures.

In other words, when an individual pursues towards enjoyment, interest, satisfaction of curiosity, self-expression, or personal challenge in the work; the individual is considered to be intrinsically motivated (Amabile 1993, 188). And on the other hand, an individual is extrinsically motivated as engaged in the work in order to obtain some outcome, which is apart from the task itself (Amabile 1993, 188). In some features the extrinsic motivation is very similar to the exchange-theory, since the extrinsic motivation is usually very reliant on rewards. Extrinsic motivation may work well in simple and quite repetitious work tasks, but in knowledge intensive organizations, where creative thinking and problem solving is essential, intrinsically motivated group that enjoys new challenges and continuous learning is mandatory (Gagné and Deci 2005, 346). For that reason, this study concentrates on presenting the intrinsic motivation and trying to comprehend the linkage between individual's inside vision and motivation.

As stated earlier, the individual's cognitive skills and creativity may be the crucial factor of creating new things and also accepting them. It is insisted that cognitive awareness, personal characteristics, intrinsic motivation, and expertise knowledge of individuals are considered as influencing factors on individual creativity (Woodman et al. 1993, 297). In fact, intrinsic motivation could be regarded as significant factor for creativity. Intrinsic motivation is also defined as the motivational state, in which their works

themselves attract individuals, regardless of external compensations (Deci and Ryan 1985, 34).

Individuals who are encouraged by intrinsic motivation tend to have passion for their work and consequently, they could have highly contribution to their work also. Some writers conclude that psychological empowerment affects positively creativity revelation processes, and individual creativity and the intrinsic motivation can be considered as a significant factor affecting individual creativity. Some indications are also seen, where individuals tend to selectively engage in activities that best match into their personalities. (Zanzotto et al. 2012, 132.)

Intrinsic motivation emphasizes an inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn, that the human nature has. Consequently, intrinsic motivation expresses the positive potential of human nature. Intrinsic motivation nurtures cognitive and social development through spontaneous curiosity, exploration and inclination towards virtuosity. Intrinsic motivation can be seen also as an evolved propensity, similar to the suggestions, which acknowledge that from the time of birth, children are active, curious and playful even in the absence of specific rewards. Although the individuals are inherent with intrinsic motivational tendencies, the maintenance and enhancement of this natural propensity requires supportive conditions, as it can be disrupted by various non-supportive conditions. On the other hand, with supportive conditions the intrinsic motivation can be endorsed as well. (Ryan and Deci 2000b, 69-70.)

Social-contextual events, such as feedback and communication, can enhance intrinsic motivation for that action, since feedback and communication lead toward feelings of competence during action. For that reason, optimal challenges, effectiveness-promoting feedback and total freedom from demeaning evaluations are argued to enhance intrinsic motivation. The key-factor concerning intrinsically motivated behavior is suggested to be the degree of individual's attention devotion to the activity at hand. The mental state of operation in which a person performing an activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity, typically called as the flow-state, comes to individual when challenges are balanced by skills and

the person enjoys the experience of being fully engaged in the activity. It is suggested that optimal challenges maximize enjoyment and therefore enhance intrinsic motivation. It is also notable, that the feeling of competence alone does not enhance intrinsic motivation. The feeling of competence does not alone endorse intrinsic motivation. The feeling of competence is needed to be combined with a feel of autonomy, which means that the recognized feel of causality should be experienced as an individual's inside-vision. (Abuhamdeh and Csikszentmihalyi 2009, 1619–1620; Deci et al. 1999, 659; Ryan and Deci 2000a, 58–64; Ryan and Deci 2000b, 69–70.)

It is argued, that in general, tangible rewards have a significant negative effect on intrinsic motivation even for tasks that interested individuals. It seems that performance-contingent rewards undermined individuals' free-choice behavior, but they do not affect their self-reported interest. On the other hand, verbal rewards, usually labeled as positive feedback in the motivation literature, have a significant positive effect on intrinsic motivation. Intrinsic motivation energizes and sustains activities through the spontaneous satisfactions inherent in effective volitional action. It manifests in behaviors, such as play, exploration, and challenge seeking, that people often do for no external rewards. (Deci et al. 1999, 653–658.)

Nevertheless, it is widely acknowledged that rewards can control people's behavior, and that is supposedly the reason why reward-theories are so widely advocated. Although their large-scale popularity, the primary negative effect of rewards is that they tend to prevent individuals' self-regulation. In other words, possibilities of rewards undermine individual's taking responsibility for motivating or regulating themselves. Several theories also emphasize that cognitive interpretations of external events affect motivation, affect, and behavior. In line with those theories, the current meta-analysis supports the importance of cognitive mediators of rewards and feedback, further emphasizing the importance of human experience in understanding how environmental events influence following behavior. (Deci et al. 1999, 658–659.)

Not the reinforcement theory, theory of needs, or even intrinsic motivation theory alone can offer a straightforward answer for motivating individuals. The reinforcement theory and theory of needs focus on individuals as an object that can be steered with simple

stimuli towards the wanted direction. Intrinsic motivation emphasizes individual's inside-vision, but regardless, intrinsic motivation cannot bypass the force of rewards. Nevertheless, every theory seems to have also a seed of truth in it. Rewards tend to make individuals act at the desired goal, and it would be foolish to think that people could act, for instance, towards the needs of self-actualization if they do not have enough to eat. Furthermore, the individual's feeling of competence and autonomy to the action performed is a catalyst for motivation according to several studies.

Besides, one thing seems to be in common with every presented theory: the effect of a positive reinforcement. These theories unambiguously come to the conclusion that positive reinforcement enhances individuals' motivation to act. It is worth noticing that the way how new ideas are presented to individuals increases in a crucial part, since the motivation is linked to positive reinforcement but also to people's personality and cognitive skills. In fact, there is a major risk of putting the whole process of motivating individuals in jeopardy if the different way of doing things is introduced negatively. It seems that the most fruitful way to approach the process of motivating individuals is some sort of a combination of these different theories. Individuals' personality and cognitive skills cannot be disregarded, since the individual creativity brings the best outcome in developing and accepting new things. On the other hand, the surroundings should be made as adaptable as possible. When individuals have satisfied their primary needs and they have been given positive feedback, it should generate an environment where individuals' creativity can be sprung to life.

2.6 Theoretical framework

This chapter summarizes the main conclusions from the study's literature review and creates a linkage between the theoretical and the empirical part of the study. The literature review consisted of the literature related to innovation diffusion, change management, sustainability, social sciences, and organizational behavior. In addition to the selected books, theme-related articles were used as well. These themes were selected since the aim of this study was to search for the reasons why some individuals act differently from the mainstream. The focus was on understanding the pioneering micros and what drives them forward. Based on the theoretical ground, the empirical part examines what

actually moves pioneers and their opinions about how the food system's change could be accelerated. The theory and the empirical part are intended to cooperate in the research. The innovation adoption, change, and motivation were elected as supporting themes of the research. It is undeniable that these themes are tightly bundled together if the purpose is to understand individuals' inducements and actions in the framework of this study. Other continuous subthemes of the research are resistance and leadership. In addition to these themes, creativity and visionary, and willingness to learn seem to be having also an impact. Throughout the whole study, there was an aim to study the effect of a positive reinforcement as an undertone. Figure 7 demonstrates the connections between all of these themes.

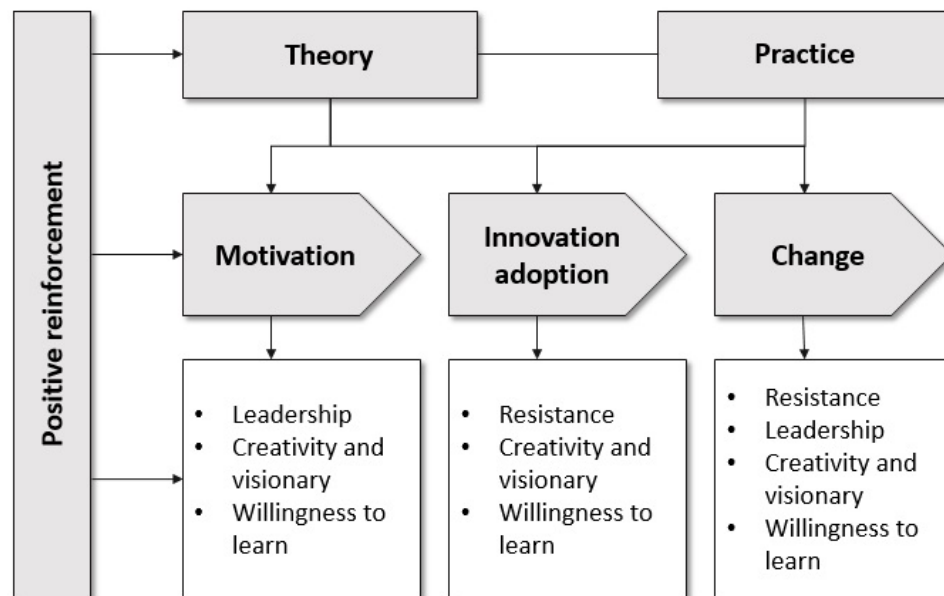


Figure 7. Conceptual framework.

The study concentrates on finding reasons why some individuals adopt innovations more eagerly and have a smaller resistance towards change while others have stronger resistance both on innovations and change. The literature review draws a conclusion that individuals' psyche and personal features are in a crucial role explaining why some micros act differently than the mainstream. These psychological factors were proposed to be individuals', among others, cognitive skills, such as adopting new information, motivation, and emotions. Cognitive skills that were dealt in this study were varied but there were phenomena like mastering complexity and exploring and learning from new

things. Emotions that came up in the literature review were, among other things, anxiety, compassion, and empathy.

Table 2 presents the main themes of the study and how different references used in the study endorse positive reinforcement, psychological factors, creativity and visionary and learning affecting the themes of the study. The psychological factors include different human mind's divisions, such as cognition, emotions, intelligence, and personal features.

Table 2. How during this study used references emphasize positive reinforcement, psychological factors, creativity and visionary, and learning.

References that endorse effectivity				
Theme	Positive reinforcement	Psychological factors (e.g. cognitio and emotions)	Creativity and visionary	Learning
Innovation adoption		Rindova and Petkova 2007 Ram and Sheth 1989 Kleijnen et al. 2009 Conway and Steward 2009 Kotler and Keller 2006 Bass 2004	Kotler and Keller 2006 Conway and Steward 2009 Bass 2004 Rogers 2003	Rindova and Petkova 2007 Ram and Sheth 1989 Kaplan and Tripsas 2008 Tripsas and Gavetti 2000 Dane 2010 Bingham and Kahl 2013 Fiske and Taylor 1984
Change	Burnes 2000 Mabey and Mayon-White 1993 Conger and Kanungo 1994 Penner et al. 2005 Wade-Benzoni 2002 Wade-Benzoni et al. 2008 Hernandez 2012	Kaplan 2008 de Board 1978 Zaltman and Duncan 1977 Bovey and Hede 2001 Wade and Tavriss 1996 Grimes et al. 2013 Arend 2013 Klein and Sorra 1996 Teece 2007 Felin and Foss 2005 Conger and Kanungo 1987 De Cremer and van Knippenberg 2002 Mathieu and Zaiac 1990	Mintzberg and Waters 1985 Teece 2007 Weber 1947 Conger and Kanungo 1987 Conger et al. 2000	Whitson et al. 2014 Mabey and Mayon-White 1993 Burnes 2000 Van der Heijden et al. 2012 Johnson 2008 Mintzberg and Waters 1985 Teece 2007 Felin and Foss 2005
Motivation	Delamater 2006 Chisnall 1997 Ilies et al. 2007 Csikszentmihalyi 1975 Ryan and Deci 2000a Abuhamdeh and Csikszentmihalyi 2012 Abuhamdeh and Csikszentmihalyi 2009 Deci et al. 1999	Lewis 1966 Csikszentmihalyi 1975 Viswanathan et al. 2013 Lepper et al. 1973 Deci and Ryan 2000 Amabile 1993 Woodman et al. 1993 Deci and Ryan 1985 Zanzotto et al. 2012 Ryan and Deci 2000b Abuhamdeh and Csikszentmihalyi 2009 Deci et al. 1999	Woodman et al. 1993 Deci and Ryan 1985 Zanzotto et al. 2012	Gagné and Deci 2005 Woodman et al. 1993 Ryan and Deci 2000b

As a conclusion, in the figure 8 is presented how the selected theory for the study endorses the research's purpose and how frequently appeared subthemes, like learning, assist main themes of the study.

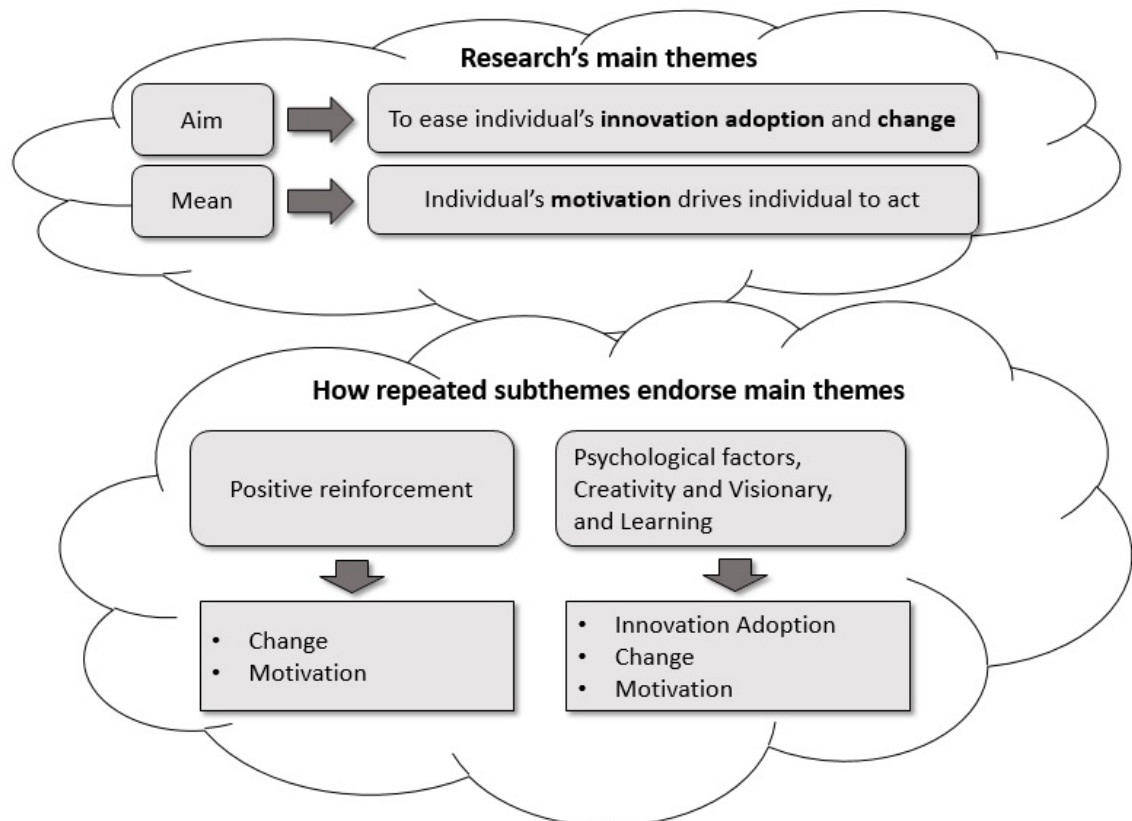


Figure 8. How the repeatedly upcoming subthemes assist main themes of the study.

Given these literature references, it is clear that the effect of a positive reinforcement in the framework of food system's transition should not be disregarded. The impact of different kind of psychological factors appears to be very convincing when individuals and their inducements are under a special interest. In the literature review, two cognitive skills appeared especially repeatedly: both creativity and visionary and willingness to learn. According to the references, these phenomena have a strong influence on persons. Individuals who possess creativity and willingness to learn, are stated to be more adjustable towards novel innovations and change. For that reason, they might be the solution when food system's change is wanted to be expanded further from the innovators and the early adopters. Even though if the food's sustainability was not originally the first choice of interest for creative and challenge seeking individuals, they might still get

drawn into the cause because of their curious nature. In addition, if individuals' inherit curiosity and visionary can be enhanced, the change might ease as much as the people are reached.

The literature concerning innovations and innovation adoption was taken into consideration since it was essential to understand that individuals adopt new ideas and approaches by different ways. Factors that influence on these differences are, for instance, individual's personality, socio-economic status, education, and their dogmatism. It is discovered that innovators usually are genuine opinion leaders, and they do not feel pressurized by the surrounding social group, and typically they have a strong interest in new ideas. Early adopters usually have high socio-economic status and higher education. They are local actors and usually open to change.

New innovations encounter resistance nearly without exception, but the amount of resistance varies. It is stated that resistance is smallest from innovators and after them the smallest reaction comes from early adopters. Consequently, if the food system's innovations are widening into critical masses, the resistance will probably increase since the early majority and late majority give higher reactions than the faster adopter groups. Using effective schema emergence might be one key easing the innovation adoption and fighting against resistance.

Since the resistance can postpone adopting innovations and managing change, decreasing the resistance is one main element in easing the micro-change. Resistance originates usually from the reason that novel innovations tend to create change on individuals' routines. Resistance initiates from the factor that change inevitable means going from the known towards the unknown. Using learning and educating, the change implementation seems to be eased and educating also decreases the change's strangeness to individuals. Key components of a successful change are learning and early involvement.

This study has taken a common path with emergent change approach. Even though the emergent approach is highly suitable for the turbulent world and the micro-level tends to emphasize the emergent change, there still remains a question: how long can a change exist without deliberate intention. If the goal is to move towards the large scale

change, some sort of intentions and even plans are needed. The strict division between an emergent and planned approach is no longer preferable. In fact, the approach might never be strictly only planned or only emergent approach (Mintzberg and Waters 1985, 258). To create large-scale changes, combining emergent and planned approaches seems to be the way move on. The planned change tends to highlight the role of a leader, which also might work with harvesting the pioneers to act as change agents.

If the change is wanted to be implemented, someone needs to be the forerunner and lead on the way to others. Emergent change usually does not acknowledge change agents, but it is assumed that the more complex the change process is, the more difficult it is to achieve the change, which means that there is a clear need for specialists who guide the change forward. Change agents are also able to present new ideas in a way that appeals to others and consequently, managing change eases. Change agents are also linked tightly into the learning process of change. All in all, there seems to be a certain demand for change agents since they have skills that are needed when changes are implemented. If the change agent has charisma, the agent is able to persuade others to follow and capable of fostering high level performance.

Even though managing change might encounter many obstacles, individuals still have some advantages too, since entering micro-markets encounters less resistance from other operatives. Starting from micro-level markets might in a long run evolve to larger scale markets since the main assumption was that individual actions eventually create social outcomes. The mean is to harness these market-based methods to solve social problems. Individuals' ideologies influence the amount of collective actions they conduct, and if they experience psychological ownership towards their organization, it may create more collective actions.

The importance of motivation relays on the fact that motivated individual engages activity more efficiently than unmotivated. Intrinsic motivation explains individual's inherent tendency to act by the sake of the activity itself, and intrinsic motivation seems to be the most fruitful way to engage individuals in acting towards sustainability. To sustain individual's intrinsic motivation, it needs to be nurtured.

It is also acknowledged that many times people would like to act on good purposes, but the wants do not proceed into actions. For instance, mind's unconsciousness forces may take over the control. It might be anxiety or unsatisfying past experiences, which affect individuals' actions. How to change this unfortunate tendency should be studied more than what is done in this research. Some factors of individual's circumstances cannot either be bypassed; it is clear that sometimes, for example, financial issues affect individuals' actions. Maslow's hierarchy seems to have some relevance at least on lower sections of the pyramid. For the enhancement of intrinsic motivation, suitable conditions are needed; it is stated that individuals need right amount of challenge and circumstances that endorse creativity. In addition, positive reinforcement seems to enhance intrinsic motivation, too. These findings assume that the most favorable approach in motivating individuals is enhancing and sustaining people's intrinsic motivation. To make this happen, there is a demand to satisfy the lowest needs of the Maslow's hierarchy, since individuals cannot concentrate only on their inside vision and neglect totally the outside environment. It is also stated that the effectiveness of individual lies in knowing the boundary between self and the outside world, and perceiving what is inside and what is outside (de Board 1978, 117).

In addition to the themes discussed, the effect of leadership and timing appeared also in the literature review several times. Leadership skills are bundled together with motivation and change themes, and for that reason, also connected with individual's cognitive skills and feel of security. A successful leader can be a valuable asset when change is managed forward. Charismatic leaders have a tendency to inspire others, and their followers usually support them passionately. Consequently, charismatic leaders are also able to create significant group outcomes. Leaders with charisma are especial to communicate, and they persuade others to become more committed to change. The effect of timing is not yet clear, but there are indications that timing can affect drastically the innovation diffusion and change implementation.

The effect of positive reinforcement was aimed to be the hidden agenda throughout the whole study. There is still a need to study more the links between the study's themes, but it is still stunning how all of these various literature references, from the wide range of different fields of study, come to the same conclusion, at least to some extent. It

seems obvious that the effect of a positive reinforcement acts as a key component of motivating individuals. Given from the references, positive actions tend to create more positive actions. Positive reinforcement is stated to enhance individual's motivation. Positive reinforcement seems to be also fighting successfully against the change resistance. It is stated that positive environment eases the emergent change, and there are also some signs that people tend to act more prosocially guided into positive emotionality.

All in all, it is remarkable how unanimous the conclusions of the literature review are. When surroundings gives positive feedback and enhances intrinsic motivation, individuals are usually better motivated and they resist the change less. Learning plays also a crucial role in innovation adoption and change implementation. Individual's certain personal features, such as creativity, curiosity, and strong inside vision advances intrinsic motivation and decreases resistance. Given from the literature review, these are the components that create a successful change.

Based on this literature review, the empirical part is conducted with its interviews. The given indications from literature review are used as underlying assumptions for the empirical part, and the interviews are carried out within the aim to understand pioneering individuals in the framework of sustainable food system. The ulterior motive behind understanding individuals is the thought that comprehending individuals might lead into changing the whole status quo. After the interviews and data analysis process it is seen how well theory and practice endorse each other, are the findings similar with the literature review, and the actual answers to the research questions are presented.

3. ANALYSIS

3.1 Qualitative methodology

Words are based on observation, interviews, or documents, and it means that they are watching, asking, or examining (Miles and Huberman 1994, 9). This study is carried out as a qualitative semi-structured research with theme-interviews. Since the study's qualitative nature, the main focus is on data analyzing and creating on the interpretation from the received data. The intention is also to make a prediction about food system's future, based on received data and its analysis. Consequently, the research has a retrospective maneuver on the data analysis. Assessing causality is essential in a retrospective matter (Miles and Huberman 1994, 147). The mean of the interviews is to examine why some innovations get more success than others and see whether something can be done to get more individuals acting towards sustainable food system. The research's progress is presented in Figure 9.

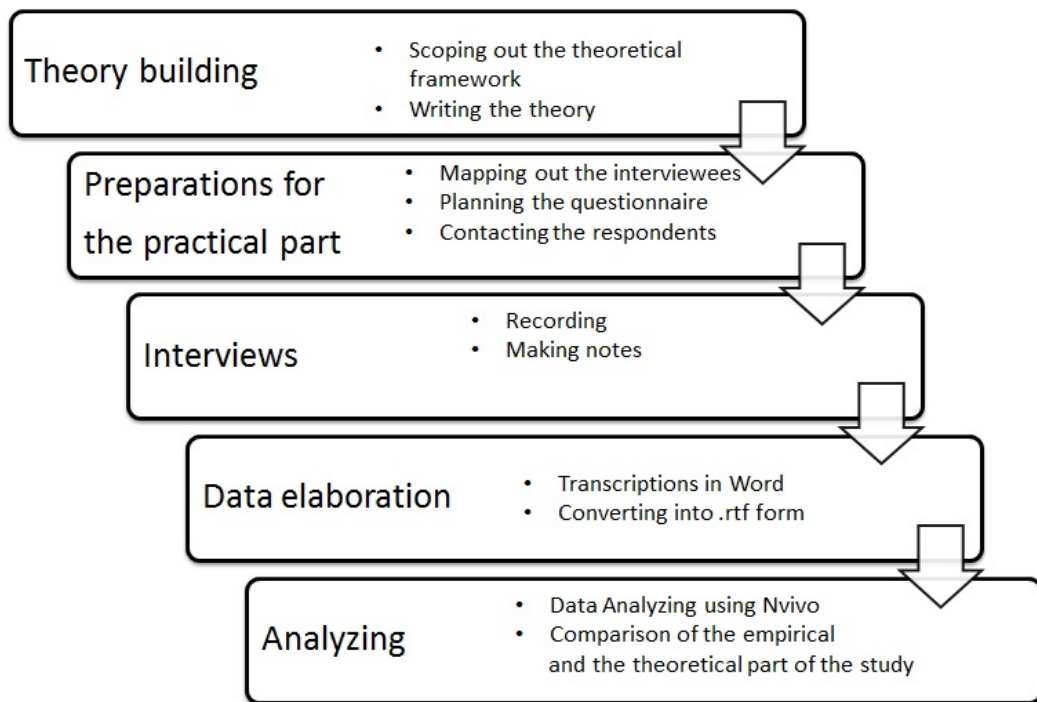


Figure 9. Research design.

Semi-structured interview is constructed to flow around a central theme. The most essential point in interviews is to get as much information about the theme as possible. The presented questions in the interview situation are related to this central theme, but the questions might not be exactly same from word-to-word to every interviewee. The order of the asked questions might also vary. The interview usually consist main questions and some supplementary questions, which are asked depending on the circumstances during the interview. The interviewee can answer questions loosely, and there are no strict rules how the interview should progress. It is noteworthy that even though there is no strict structure in the interview, the questions cannot be whatsoever; the questions need to remain around the theme. (Tuomi and Sarajärvi 2002, 75–77.)

The study is qualitative, but there are still some elements of quantitative research, since interviewees are asked some structured questions. Given the answers, it is studied whether a correlation can be found between interviewee's answers and, for instance, their age. On the other hand, the sample of respondents is so low that respondents' answers cannot be given any actual scientific weight on quantitative measures.

The study's analysis is theoretical-related, and the logic of the analyzing is based mainly on abductive reasoning. Abductive reasoning has some theoretical affiliations, but reasoning does not base directly on theory. The influence of previous knowledge is recognizable in abductive reasoning, but the weight of previous knowledge is not testing the theory rather than opening new paradigms. In other words, the aim is to analyze the data by leaning on theoretical framework but while at the same time, this study is also on the edge of something new, and for that reason, the data analyzing is mainly abductive. (Tuomi and Sarajärvi 2002, 95-99.)

3.2 Data collection

Qualitative research was conducted by qualitative theme-interviews. The purpose of the interviews was to get answers to the research's main issues: why individuals adopt sustainable approaches, what motivates individuals' act on good purposes, by what means the change to the more sustainable food system can be eased, and how the path towards macro-change can be softened. In other words, the interviews clarified pioneers'

thoughts. There was also a special interest in positive reinforcement and how it influences individuals' thoughts and actions.

The interviews were arranged so that the interviewer and the interviewee met personally. With an eye-to-eye contact the interview could reach a more profound level, which would not have been possible to achieve with only an e-mail or phone interview. In its entirety, there were 11 interviews.

The transcription process was eased in the way that the actual interviews were recorded every time while the main transcription happened by using written notes made by the interviewer during the interview-situation. If the interviewer was insecure about the notes, the interviewer could check the progress of the interview from the recorder. The records were also saved for the future researches considering food system's transition.

The aim of this study was to study pioneer's thoughts but also to make tentative predictions about which sustainable approaches might have the most suitable conditions on spreading from the pioneers and early adopters to critical masses. Since the research's abductive nature, causality is not seen to go straightforwardly and using determining causality. Determining causality usually begins from suggestions that A precedes B, when A always B, and A plausible mechanism links A and B (Miles and Huberman 1994, 146). However, in this study, some room is left for uncertainty and different possibilities how things might evolve.

Causality eventually is local with some specific events in time and the causes of any specific event are always multiple (Miles and Huberman 1994, 146). In addition, temporality and timing are crucial for causality and furthermore human events, too (Miles and Huberman 1994, 147). Creating correlations and prediction from the data received from interviews uses retrospection. The reality has an always-present element of unpredictability, and for this reason, the prediction of this study is merely directional and have solid ground only in retrospective maneuver.

Retrospection is based on the assumption that later event implies preceding ones. According to retrospection, the effects of an experiment cannot be told until the experi-

ment is over. With retrospection received data is used to create followability to capture the history while it happens. In other words, in retrospection, the causal action is followed. Usually the report of retrospection is more likely retrodictive rather than predicting. The purpose is to get a clear vision how matters have happened and see whether there are connections to later outcomes. (Miles and Huberman 1994, 147.)

Even though retrospection focuses more on explaining history, some predictions can be done based on the received data. As mentioned earlier, there is an always-present feature of unpredictability, and for this reason, the determining causality is too straightforward for predictions. By using some indicators of probability that B happens if A, the prediction becomes stronger. Using retrospection gives a certain pattern in a certain time and location what can be utilized as a hint what might happen in the future with similar circumstances. (Miles and Huberman 1994, 146–147.)

The question form was built to be semi-structured; first there were five structured questions and after those there were about four open questions. The aim of the structured questions was only to map out the interviewee's age, gender, educational background, the sustainable approach that the interviewee had chosen, and when the interviewee started to act by this approach. Structured questions were asked, since the aim was to see whether there is any correlation, for instance, between the age and innovation adoption.

Since the questionnaire was semi-structured there were also open questions that floated loosely around the theme, the purpose of which was to figure out interviewee's thoughts. All of the questions considered the same theme, and the main aim was to solve individual's inducements, but naturally, every single interview took its own course during the interview session, as it was also beforehand planned. Every interview resolved roughly same things, even though the order of the questions ranged and the questions might have been presented slightly differently. There were only about four open questions because the aim was to get the interview flowing as much as possible. The aim was to get the interview to resemble a conversation. The precise questions are presented in the appendices.

The first open question asked why the individual started in the first place to act differently compared to other people. The purpose of this question was to unveil individuals' motivations and thoughts. The supplementary questions of the first open question concerned what happened at the time when the individual decided to start acting towards sustainability and what elements affected the decision. The second open question asked whether the respondent was satisfied with the new approach of doing things, since the aim was to examine what motivates the individual to carry on with the chosen approach. The third open question clarified whether the manner of approach that the individual had chosen was common. The question stirred up the respondent to tell how the approach has developed during that time that the respondent had acted by this approach. The supplementary questions asked reasons why the approach was, or was not, common yet. The purpose was to investigate pioneers' stances on change- and innovation resistance. The last open question asked whether the individual would recommend the approach also to other individuals. The supplementary questions considered how the individual could possibly spread the agenda further. The aim of this question was to figure out how individuals react on reinforcement and motivating others. Another concealed purpose was to solve whether these pioneers could act as change agents. At the end of the interview the respondent was asked whether the interview's material could be used in further studies. Figure 10 presents more particularly what were the inducements behind the open questions that linked to the study's theoretical framework.

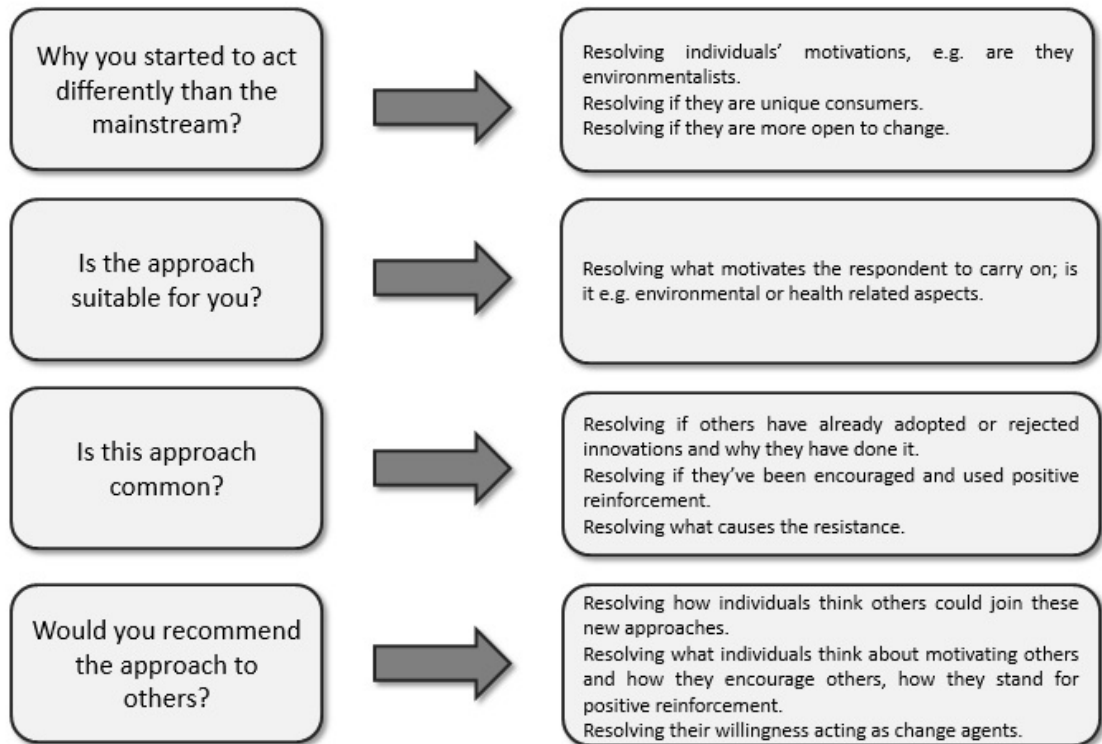


Figure 10. The relationship between questions and study's themes.

The actual data analysis was conducted by using Nvivo computer program. Firstly the notes, and possibly also the records, from the interviews were transcribed into the Word program. After the writing process, the transcripts were converted into .rtf form to make the transcripts suitable for using Nvivo. When the transcripts were in the right form, the actual data-analyzing could be processed by using Nvivo.

3.3 Interviewees

Interviewees were selected by their acts towards a more sustainable food system. The determining factor when deciding the respondents was that the interviewee should be acting somewhat differently in comparison with the mainstream. Other crucial matters were that the interviewee's acts should relate to the food system and that their actions should, at least to some extent, be driving towards greater sustainability.

Interviewees were selected also thinking that there should be a variety of actors from different phases of the food system. There were two respondents who were working on with the food system's agricultural production on daily basis. In addition to the agricul-

tural producers, there were an urban farmer and respondents from a large dairy company. In total, four different food system's pioneer consumers, for example, a vegan and a dumpster diver participated in the interviews from the consuming phase. From the retailing and distribution phase the respondents were, for instance, the already mentioned dairy company and one organic farm, which distributed and sold farm's products. There was also one merchant, who retailed near produced food and owned a shop concentrating on near produced food. In addition to these actors, there were also two specialists who used their education and knowledge on informing and creating more sustainable approaches for other individuals.

Interviews occurred during autumn 2014 from September till November. The respondents are kept anonymous throughout the whole study to guarantee the study's reliability. One of the structured questions resolved the sustainable approach, which the interviewee had chosen to practice, but in addition to that, the respondent could answer multiple times. For instance, the respondent was able to tell that he or she was both vegetarian and organic food producer. Regardless of that, Table 3 presents the interviews and interviewees and their main connection, or the connection that was dominant during the interview, on sustainable food system.

Table 3. Interviews and Interviewees participating in the study.

Food system's phase	Link to food system's development	Theme	How many respondents
Consuming	Vegan	Vegetarian diet	1
Specialist	Locally produced food agent	Local food	1
Consuming	Food circle participant	Local food	1
Retailer	Locally produced food merchant	Local food	1
Producing, retailing, distributing	Dairy company	Organic food	2
Producing, retailing, distributing	Local production farm	Local food	1
Producing	Developing urban farming in Finland	Urban farming	1
Specialist	Nutritionist	Food system	1
Consuming	Meatless October participant	Vegetarian diet	1
Producing, retailing, distributing	Organic farm	Organic food	3
Consuming	Dumpster diving	Decreasing food waste	1
		Total	14

In total, 11 interviews were conducted, but in two interviews, there was more than one interviewee participating, meaning that in total there were 14 respondents. Nine out of eleven interviews took place only with the interviewer and the interviewee. Two interviews were carried out as group-interviews with the interviewer and two, or three, respondents. Six of the 14 interviewees were women and eight were men. Nine respondents had an academic degree. Respondents' family status ranged considerably, and there were several single-living interviewees, several respondents who lived with a significant other and several respondents who lived with a child or children. Respondents' ages ranged also from under 30 up to nearly 60 years.

The main themes of the interviews were locally produced food, organically produced food, vegetarian diet, decreasing food waste, and urban farming. Locally and organically produced food and individuals acting around local and organic food were selected to

the study for the reason that interest in local and organic food has grown, even though in total, the use of local and organic products is still marginal. The interest was to resolve whether people who have chosen local or organic food have considered food's environmental impacts and whether their decision to change their purchasing behavior or behavior related to food is influenced by environmental aspects.

Vegetarian diet and decreasing food waste is stated to decrease nutrition's environmental impacts (Katajajuuri et al. 2014, 327; Risku-Norja et al. 2009, 349). Although vegetarian diet and adding significantly vegetarian products in the diet has several positive impacts on the environment, it is argued that strict vegan diet might have some negative effects on wild species' diversity (Risku-Norja et al. 2009, 349). Because of the clear environmental benefits of vegetarian diet, the theme was seen as an asset to the study. The possible avoided emissions from decreased food waste are also playing an important role in creating a sustainable food system, and for that reason, it is chosen for one of the themes of pioneer work. Urban farming was selected as one of the themes, since it is one mean to exploit already built areas as agricultural production to produce food without a need of harnessing new land areas for farming. Urban agriculture can appear, for example, as balcony, or roof, or wall farming.

4. RESULTS

This chapter summarizes the given results based on the conducted interviews. After the results section follows a discussion chapter, and more room is left for the different point of views based on the research's theoretical and empirical data. The results section concentrates mainly on analyzing the data given by the interviews. The research questions were determined in the beginning of the study as follows: Why do the individuals adopt alternative approaches compared to the mainstream in the framework of food system, on what terms others would participate in these alternative approaches, how would positive reinforcement affect adopting new approaches, and what are the factors that have helped successful innovations? The aim of this section is to answer these questions based on the empirical data. Figure 10 presents the interview questions relation to study's research questions and theory. The answers to the research questions, based on the interviews' responses, are presented below.

4.1 Why do individuals adopt alternative approaches

The reasons why individuals adopt innovations and alternative approaches were the main interest of this study, since the underlying assumption was that when the individual can be understood, eventually the macro-level could be understood as well. Interviewees had some variety in their responses about innovation adoption, but certain similarities were visible from the given answers. The main reasons why pioneers adopt innovations are presented in Table 4. Interviewees could answer many inducements for their choice of action, but many of them told voluntarily, what their main motivation is to start acting differently from the mainstream.

Given from the responses, the two most significant reasons for adopting innovations were environmental reasons and respondents' deep connection to the countryside. Environmental reasons varied from the worry about carbon emissions and overuse of water to wanting to reduce the distribution phase of the food system. One respondent spoke about environmental inducements as follows; *"I have thought about the environment, and thought how much fodder production consumes water. When I saw the figures, it was shocking."* Another respondent described his or her connection to environment as

follows; *“We have always lived very strongly from the ground. Environmentally friendly lifestyle has always been present.”* Even though nine out of 14 respondents told that environmental reasons motivated them to act, only three of them said that environmental aspects were the dominating reason. Many of the interviewees told that they either grew up in the countryside or they had spent a lot of time in the countryside during their childhood, for example, by their grandparents. The respondents mentioned that the countryside had affected them strongly, but no one said that it was the single dominating reason for starting to act the way he or she did. They told rather about good memories that happened in the countryside; *“I have grown up in the countryside, so I have respect towards nature“*, *“As a child, I watched how my grandfather farmed cabbage and I saw how he kept the potatoes in the cellar, so it (interest in food) came from the childhood.”*

Table 4. Main reasons why pioneers adopt innovations.

Reason why adopted or sustaining the alternative approach	How many respondents were influenced
Environmental aspects	9
Contact to countryside	9
Healthiness	8
Effecting by consuming behavior	8
Social circle	8
Animal rights	7
Ethical aspects	6
Inherent interest	5

Healthiness was also a strong inducement for the respondents. Organic food, locally produced food or vegetarian diet was seen as a healthier way to eat than the way that the mainstream eats. In addition, health-related aspect were described also as food’s purity or authenticity during the interviews, respondents told that food’s purity advances their

health and interviewees had some concerns about regular food's purity and how much the food consists, for example, antibiotic residues or how well the nutrients survive long times from handling and distribution. Health related reasons were also said to be dominant or self-evident reasons for acting differently for four interviewees, one interviewee told that his or her choice was affected by health related aspects; *"It was the purpose of finding authentic food, which includes as little as possible food additives and has the shortest distribution as possible."*

One remarkable result was that interviewees wanted to act on good purposes by their consuming behavior. The respondents wanted to keep the local economy vital and wanted to give profit straight to food's producers rather than to big supermarket chains. They also said that by buying more ethical products they could guarantee a better well-being for animals. Few respondents said also that food that is bought straight from the producers is usually cheaper than the supermarket's food. They argued for affecting by consuming behavior with statements like this: *"If we are able to maintain production here, we have then also possibilities to keep small-scale production here, which consequently has many advantages. I am afraid of the thought that the whole world is under an enormous factory farming, which is very estranged from the nature, since after all, the food comes from the nature"* and *"It is just very reasonable idea that food is not needed to distribute from somewhere far. We could be using products from the nearby, and the need for packages would decrease, and the money would circle in the neighborhood. Keeping the local economy and the vitality of the rural areas is important to me."*

Respondents' social circle had also an effect on some of their motivations. Several respondents told that their childhood's home and childhood's parenting had influenced their interest towards food. For instance, one of the respondents described the childhood memories: *"My mother, for example, made very traditional foods, and sustained food-traditions. I have always been very interested how traditional foods were made. Those were very nice childhood memories."* Other interviewees mentioned that the social connections that influenced their decisions were spouses, friends, and in general the surrounding community, for instance; *"My eyes were opened when I met my wife, who was born in the countryside."*

Taking a stance for animal rights was an inducement that did not show as often as environmental or health-related aspects during the interviews, but its respondents felt it more dominant than the first mentioned two reasons, for example they said: *“The most important inducement, for me, are the animal rights”*, *“I consider that the well-being of the animals has been the motivation for me”*, and *“The biggest influence on my decision was the animal rights.”* Out of the total of seven respondents who were influenced by animal rights, five said that the animal rights were dominant for his or her actions.

Six interviewees told that they wanted to act since they felt morally obligated to do so, for instance, a respondent who was concerned about the environmental issues, felt also that eating meat was simply wrong, and even though the respondent realized that in some cases eating meat was not bad for the environment. Some of the respondents justified that their decisions was morally right, and for that reason, they wanted to support, for example, by their consuming decisions that innovation they had chosen. Respondents described their ethical stances as follows; *“Ethical issues, such as, the living conditions of the piggeries effected on my decision.”*, *“Ethicalness of the production influenced on my choice”*, and *“My decision makes me feel good, since I think it is just the right thing to do.”* These kinds of ethical justifications can be linked with Maslow’s need hierarchy, and it can be said that these individuals might have reached the self-actualization state when individual is free to act on its full potential. In addition, some of the respondents described that their interest to act differently springs from their own personal, inherent, interest, which was indicated, for example, like this: *“I feel that countryside has always been very close to me”*, *“I have had interest in food even before taking any actions”*, and *“Already, during my childhood, I had interest in doing things together. The possibility to make an impact by my own hands has been important to me.”* Inherent interest can be seen, based on the literature review, as intrinsic motivation that drives pioneers to act.

Table 4 summarizes the individuals’ most frequent inducements. In addition to the already mentioned reasons, there were also a few other motivations. For example, a couple of the interviewees told that their education or working place had influenced their actions even though they had not felt a need for actions earlier, during the childhood, youth, or early adulthood. One of the respondents felt a need to make a mark to the sur-

rounding environment for the better direction. In addition, one respondent analyzed that homeland's food security and keeping also small food producers vital are important factors for the actions.

4.2 On what terms others would join in food system's alternative approaches

Another examined question was that how would it be possible to get more people to adopt food system's innovations. The majority of the innovations that are handled in this study are approaches that have not yet reached the critical masses. To ease the innovation adoption, it is crucial to understand what are barriers postponing the adoption process, and on the other hand, what are the means to accelerate the process. Table 5 is presents the respondents' frequently appearing opinions about the reasons why individuals refuse to adopt innovative approaches.

Table 5. Pioneers thoughts about why individuals reject innovations.

Reason why masses have not adopted the alternative approach	How many respondents indicated
Price	8
The lack of easiness	6
The lack of interest in food	6
Thought that despite the processes, all foods are equally good	6
Social circle	5

According to the respondents, the one most significant reason for rejecting innovations was the price. In total, eight out of 14 respondents believed that the price affects individuals and decreases their willingness to adopt new things. Many of the respondents expressed their concerns about how individuals with seemingly low incomes could even change their present consuming habits, as one interviewee describes: *“There are currently so many people, who need to think the prices increasingly. Cheaper products*

come somewhere else.” They also mentioned that in the current economic situation, healthy and environmentally friendly food costs too much compared to unhealthy and not environmental conscious products. The respondents admitted that their chosen approaches could not compete in every situation with cost-effective supermarkets. One respondent indicated that *“Considering food’s nutritive value, there is simply too big selection of cheap, not that healthy, food, and for those consumers who value price, it is easy to take the unhealthy option.”* On the other hand, a couple of interviewees indicated that there are still many people who are not price sensitive and they value other things higher than the price, which can be linked to the theoretical framework, and consequently, consider those consumers as early adopters who usually have a better economical situation than the later adopter groups. Another respondent also told that with rough generalization, the approach that he or she had chosen was particularly appealing to academic people, which also indicates innovation adoption’s early adopters. Though, one interviewee said that in reality, the cheapest food comes directly from the producers, but to reach those products, one needs some knowledge and connections to the area’s producers, and that is not as simple as just going to the supermarket.

Easiness, in fact, seemed to be also one essential factor when individuals reject alternative approaches. Several respondents told that if the innovative manner is not easy, or it causes more effort to individuals, they probably do not adopt the innovation. Respondents argued for instance that *“When people are looking for the effortless, they seek food from supermarkets”*, and *“Local food is not yet that easy and simple. In addition, it does not show up as affordable alternative for the consumers.”* They also said that if the mean is to get the large mass affiliated with the pioneers, things must be done so easy to individuals that they cannot withdraw by appealing approach’s difficulty compared to other ways.

Six respondents also thought that one reason for rejecting innovations is the fact that food simply does not interest many of the people. Food was described as a very ordinary and self-evident thing, on which individuals do not pay any attention. They portrayed situation like this: *“There is so big group of people, who consider food as a very ordinary matter, and as a thing that one just go to buy and nothing more. People do not pay any particular attention in food”*, and *“There are still those people who just do not*

think where the food origins. They only think that 'food comes from the market'." Interviewees also told that individuals tend to trust blindly on some commercial information about food. A couple of respondents expressed their worries about how during the last years and decades the prevailing thought has been that Finland's food industry is somehow extraordinary doing things better than that of other countries, and those things have influenced radically the individuals. The individuals think that they can always trust on that every single product from the supermarket is as good as organic or local food product because supposedly food is here practically already organic or local food. The blind trust was described, for example, like this: *"One reason for that here has not been a lot of discussions, is that we have thought that everything is fine. Now that there has been some opposite messages, for instance, some shocking videos from piggeries, we are starting to discuss more widely about what is this happening and how are we supposedly differing from others."*

The effect of individual's social circle should not be underestimated, since the interviewees indicate its effect on innovation rejection being remarkable. They said that if individual's childhood home had not taught the basic interest in food, or even to many kinds of flavors during the childhood, it is likely that the individual does not appreciate food as an adult either: *"During the youth is created the ground for interest in food, and therefore many has not learned the interest in food."*

These five most frequent reasons, handled above, were not the only means that respondents mentioned. In addition, regardless of the fact that today food-related topics are widely debated and discussed, three respondents were thinking that there is still not enough information. One of them said that food matters are seemingly playing a larger role than they actually play in reality; large masses still do not think food and food's impacts toward the environment, health, nor economy at all. A couple of interviewees mentioned that these food system's innovations give negative mental images and some people might still connect, for example, vegetarian diet to the radical hippie movement. Two interviewees also expressed their concerns about food's taste; they argued that no one wants to buy or eat environmentally conscious food if the taste is not good enough. Three respondents analyzed that people simply are very slow in changing, and implementing change takes time. Even though food system's innovation adoptions seems to

be having clear difficulties, the interviewees also pondered useful means about encouraging others to join their ways of doing things. Table 6 presents the most frequent manners that came up during the interviews.

Table 6. Means how pioneers think others are encouraged to join.

Reason why others might join in participating the alternative approach	How many respondents indicated
Healthiness	10
Educating and increasing the knowledge	9
Environmental aspects	8
Cheaper price or economical stances	7
Food related crisis	6
Animal rights	5
Social circle	5
Easiness	5

These were the main reasons and motivations that the respondents indicated when they were asked to tell how they would think that others would start to join them. The biggest motivator according to the respondents was food's health benefits. The respondents said that better sustainability guarantees food's authenticity and that means better nutrition, which could motivate others to join in. One respondent also mentioned that food's healthiness is now a megatrend in the world, so food issues are widely discussed now. They indicated, for instance, that: "*Organic food is pure and there are no antibiotic residues*", and "*Local food has health benefits and it is more reliable.*" Consequently, it might help in gaining interest from the early majority as well. Food's sustainability includes also environmental aspects, which were also represented in respondents' answers: "*If some person is worried about environmental issues, I would try to recommend by appealing on environmental benefits*", and "*Can be plead on local food's taste world, on storing the nutrients and healthiness, and on environmental benefits.*" The

respondents were quite unanimous about that highlighting environmental aspects could encourage others, especially environmental conscious consumers, in adopting innovations. The respondents stated reasons with similar grounds as using animal rights as motivation to persuading others to join in these actions also, how one respondent summarized the situation: *“There are always the three main points, which are health issues, animal rights, and environmental issues.”*

The respondents argued that even though food issues are widely debated, there is still too little knowledge about food in general. Education and learning is stated also to decrease resistance towards change and innovations. Interviewees said that if just people’s eyes could be opened, they would not anymore want to use regular products even if the price would be higher, since alternative approaches do everything better and use higher ethics in their procedures: *“The comprehension about food’s origin should be taught to children and youth, so they would understand that food does not come from the markets. There should be provided trips to countryside for kids too”, “The knowledge should be passed on different districts. Urban farming should be made so easy, that even the shyest people could have the courage to join in.”* On the other hand, the price sensitivity was the most common reason for innovation rejection given by the interviewees. The interviewees analyzed that if the prices were lower, more consumers could afford sustainable products and the interest towards food’s sustainability would increase: *“I would recommend others to join in by increasing the awareness and telling about the ethicalness of the production. Still, individual’s economical situation has an effect.”*

An interesting reason that came up from the respondents was that the effect of crisis related to food eases the innovation adoption; the crisis might be, for instance, shocking videos from piggeries, the effect of antibiotic residues in food or fear of BSE epidemic. Six interviewees pointed out that major crises related to food have increased people’s interest in food and its origin and that indicates that possible future crisis might also wake up others to join in to alternative approaches, as one respondent described: *“Food related crisis awaken people and bring them to local food’s district.”*

Respondents also said that individual’s social circle may have a strong impact on individual and their willingness in adopting new ideas. If individual’s friends start to pay

attention into food's sustainability, the individual might also get interested in food issues or even feel pressurized by the social group. The pressure from the social group can ease the adoption process on groups, excluding innovators. One interviewee mentioned the influence of friend, especially on the youth: *"Of course the circle of friends has a major impact. In some inquiries, that resolved what is the party that one listens, for example, in health issues, and the results argued, that for the youth it is friends."*

The lack of easiness was one of the main rejection reasons of the results. Consequently, easiness is indicated as one of the major keys in tempting others to join alternative approaches by the interviewees. Respondents valued highly the worth of easiness if the aim is to reach large masses. They described the need for easiness, for example, like this: *"If the large mass is wanted to engage in acting by some specific way, it should be made as easy as possible", "As long as one needs to make an effort in order to do something, it is too hard and it does not success", and "Someone who is passing by, can easily pay a visit here, since it is easy, and that increases local food's consumption."*

Other reasons that the respondents mentioned were examples and taking influences, adopting innovations, from other countries that have already had some successes, increasing the connection to countryside and nature, taking political stances to obtain sustainable policies, increasing food's traceability, harnessing the power of marketing for the cause of food's sustainability, and guaranteeing homeland's food security. Few respondents also told that if the sustainable approach's food tastes supreme, people would start to buy these options even if they would not have any other inducements behind it.

4.3 How does positive reinforcement affect adoption

The third research question concerned that how positive reinforcement affects individuals. The theoretical framework emphasized the encouragement by using positive reinforcement several times. But given from the interview responses, only two respondents gave an answer that could even slightly be associated with positive reinforcement. Consequently, 12 interviewees did not even hint about positive reinforcement as an influencing factor.

Two respondents who remotely suggested that positive reinforcement might be one factor that eases innovation adaptation did not either grasp completely the connection between encouraging and motivating individuals into actions. Both respondents were only certain that lecturing is not the right way to go forward. Other respondent indicated that influencing others should be very subtle, and before encouraging someone, person's interests should be taken into consideration. For instance, if one expresses interest towards environmental issues, the encouragement should be carried out based on telling the positive environmental benefits of the approach in question. He or she described the recommendations as follows: *"I might not speak directly about vegetarian diet but what I usually suggest to others is vegetarian food. I try to act as a bit undercover."* The other respondent mentioned that the choice of his or her action has been very personal, and he or she has not promoted the innovative manner to others. The respondent said that he or she does not want to preach almost at any situation to others, since it tends only to banish them and create more resistance towards change; *"Some may think that no one can violate their steak dishes, and it creates that kind of resistance. I consider this to be very private matter. I am highly self-regulating about preaching on others about their steaks' negative effects."* The conclusion was that it might be better to be silent than try to affect those individuals who have no interest in food issues. These two narratives were the only results that could be linked, at least to some extent, to positive reinforcement.

Respondents' other indications, such as, educating and increasing the learning can also, to some extent, be related to positive reinforcement, since those approaches do not use hard implementation methods like legal control and sanctions. Some positive elements might be seen also from the effect of individual's social circle because, for instance, friends may encourage one to join in their choice of action by positive manners. Nevertheless, it is undeniable that in the study's empirical part lies a significant lack of positive reinforcement.

4.4 Factors that helped successful innovations

Many of the studied innovations were on balanced economical ground, but only two of the innovations had made it through in the large scale, and have already reached the

critical mass. To get some hints about which today's innovations might succeed and reach the critical mass, it is essential to understand how food system's past innovations have passed the resistance and implemented the innovation diffusion and change. The reviewed dairy company is Finland's largest single dairy company, and it might be said that because of that company, everyone in Finland knows today what organic food means. The reviewed company launched organic products to large masses about twenty years ago, and today their organic products are stabilized in the company's permanent selection. Another success was an organic farm that sells products widely in Finland. The farm also started its organic producing nearly twenty years ago. Both successes familiarized the concept of organic production from other countries, mainly from Sweden, Denmark, and Germany.

The challenges and keys to success that these pioneers had were multiple. For the organic farm, a big challenge was that twenty years ago people did not know what organic food actually meant. Some challenges occurred also from the local politicians, and sometimes the bureaucracy appeared too aggressive and arbitrary. One challenge for the farm was to resolve how to get their products into stores; *"The effect of markets and merchants has been significant in the success of organic food."* One surprising challenge, what appeared during the interview, and was not expected based on the interview questions, nor the theory, was the effect of human relations. Respondents mentioned that if during the whole chain, from production into retail, is even one person who might not respect the same approach than the pioneer, that person might thwart the whole process of implementing innovative approaches. This indicates that human relations are meaningful in the actual implementation process of the change.

Dairy company's one challenge was that in the beginning there was not enough raw-material for large-scale production. Hence, products' availability was also weak. It was also troublesome that products' expiration dates came sooner because the distribution phase took time for the sake of long distances. Producing costs were seemingly high in the beginning of the organic food production, which also meant higher prices for the end products. Interviewees described the early years of the organic food in Finland, as follows: *"During the 80's people did not know what organic meant. The idea to bring organic food to Finland took off from the neighboring countries, like Sweden and Den-*

mark, where was already organic production.” It was also pointed out that twenty years ago organic products were mainly used by some special consumers that could be considered as pioneers, the products have not reached the ordinary consumer yet. Ordinary families might have thought that they could not afford organic products. It was problematic to justify to consumers why they should buy organic products instead of regular products.

The respondents indicate that behind the organic farm’s success is the fact that people’s knowledge about organic food has increased significantly. They also implied that nowadays people understand the hazards of fodder production, and the threat of authentic food’s diminishing. The respondents mentioned that organic food might be also the so called last alternative for some consumers who have sensitized by regular food’s antibiotic residues from the fodder production. Consequently, organic food’s health benefits have helped the adoption process. Interviewees told that stores and supermarkets have had a drastic influence on the adoption by having a power to accept, or reject, the products into their selection. The respondents also pointed out that the better taste of organic products has obviously encouraged people to join in: *“People’s awareness has grown. Today one can find organic food almost anywhere, and people have noticed the better taste of the organic food.”* One crucial thing for the success was also the effect of timing. The respondents analyze that the time was just perfect for the organic food when their success began: *“The timing was very important, since people were ready for the organic food.”*

The respondents from the dairy company indicated that financial inducements from the producers actuated the development of organic food production: *“Producers’ financial inducements were strong, and they effected on the development of the organic production. The production costs were higher, which also meant that the end price was higher too.”* Images of the organic products’ superiority helped the innovation adoption. One factor was the 90s fear of BSE epidemic, which caused that consumers wanted to know from where their food origins. The respondents mentioned that the traceability of the organic food was important to the consumers: *“The images of organic food’s superiority helped the expansion of organic food. Organic food’s traceability, and the familiar producers from Finland, have helped the organic food’s expansion also.”* There was also a

wide belief that organic dairy products were suitable for persons with lactose intolerance, which helped to gain consumers from that segment, and created images of the better healthiness of organic food. A better traceability and marketing and branding of organic food also affected the innovation adoption process. When organic products gained some ground from the consumers, the selection could be expanded, which consequently reached again new customers to join in. In other words, the easiness to consumers helped the dairy company to conquer the markets. In the beginning of the 21st century, Finland's economic situation was also good, which helped the organic food's expand, since politics were interested in organic food and wanted to engage organic products for several initiatives. The mean was to subsume organic food, for example, into school cafeterias. Politicians created larger coverage for organic food which might have also influenced individuals' interest in organic products, and organic's conspicuousness has developed so far that today organic products are used by ordinary people.

5. DISCUSSION

The aim of the discussion section is to create linkages between the empirical data and the theory. This chapter represents different point of views based on the research's theoretical and empirical part. In the beginning of the discussion, it is pondered how the study's reliability and validity have been actualized. Content-related discussion includes speculation about the results of the three first research questions by reflecting them also to the theory. After the concept-related discussion, the conceptual framework is presented based on empirical data. At the end of the chapter, a prediction is made about what could be the next successful innovation given from the theory and empirical data, by mirroring it to the final research question.

5.1 Content related discussion, limitations and suggestions for further studies

In order to ensure research's reliability and validity, the concealing questions are that is the study consistent, reasonable stable over time and across research methods, and do these study's findings make sense (Miles and Hubermann 278)? It is characteristic to a qualitative study that the sample is quite constricted, since the objective is to understand phenomena rather than find statistical connections. In this study, the sample was 14 interviewees. Interviewees were chosen by their connection to food system and food system's innovations, hence the interviewees were representative set for the study's focus. The interview questions also were linked tightly to the study's theory. The amount of interviewees was narrow, but since the interviews started to replicate each other already in this sample, and there was found no new information, it can be said that the study's saturation point was reached with these 14 interviews. Consequently, the sample was sufficient.

The interviews were conducted as face-to-face situations, since the aim was to reach a profound level of connection between the interviewer and the interviewee. Interviews were semi-structured because the aim was to get a deep comprehension of individuals' inducements, and it was achieved by the manner that interviewer let the interviewee tell

openly his or her thoughts. The approach was successful even though strict statistical comparisons between the answers cannot be made anymore. On the other hand, the questions considered the same theme, associated with the theory, so even if the respondent's answers meandered, interviewer could concentrate on the parts of the answers that related to study's main focus during the transcription process.

The research uses more descriptive manner to describe the results rather than straight quotations, since the anonymity of the research's respondents was wanted to ensure. Results were repeating coherent answers after 14 interviews. Responses showed meaningful parallelisms repeatedly, and the answers were plausible and well connected with the research's theory. Based on the interview results, a prediction could be made, or at least a well-educated guess, about what might happen in the future in resembling circumstances. These factors indicate that study's reliability and validity are ensured enough.

5.1.1 Innovations

During the study's theoretical part the first innovation adoption groups were called as innovators and early adopters. Innovators are the first two and a half percent of consumers that adopt an innovation and innovators were described as truly unique customers that have a passionate interest towards new ideas. Innovators typically adopt innovations without an influence from their social group. Given from the interview responses, six interviewees out of total 14 could be considered as innovators. Respondents indicated that their interest was not affected by others, rather than by their own inherent interest and the adoption process happened independently. Two of them also mentioned that the chosen approach felt quite personal.

Remaining eight respondents were categorized as early adopters. Early adopters are the following 13.5% individuals who adopt innovations after innovators. Early adopters are usually pressurized from their social group and that pressure influences the innovation adoption. Early adopters are considered as opinion leaders and other potential adopters seek advice from them. Early adopters tend to have higher socio-economic status, education and be more open to change. Based on the responses, the remaining eight inter-

viewees were classical early adopters since they all told that their social circle had influenced their decision to start acting on behalf of the food system. Five out of these early adopters had an academic degree, which is also associated with early adopters' higher education, even though the sample of interviewees does not have any particular scientific value. The respondents were also opinion leaders and they also tried to educate and spread the chosen agenda to other people. The study tried to resolve pioneers', who are considered as innovators or early adopters, hidden inducements. The attempt actualized, since all of the respondent can be compartmentalized into these two categories. In addition, the respondents' personal features highlighted the fact that they had an inherent interest in new ideas and they had natural curiosity towards the unknown.

Interviewees' ages varied so much that a linkage could not be seen between the age and innovation diffusion. Respondents' gender did not either play a visible role. Eight respondents were men and six females, but the responses were similar regardless of the respondent's gender or age. This states that in this particular study, gender or age does not affect innovation adoption. On the other hand, the sample is quite narrow, so the finding may not have any real scientific value.

Given from the findings, respondents indicated that social circle influences on individual's actions. The literature review seconds this finding, since the characteristics of innovations' adopter groups match to empirical part's findings. The influence of social circle is also expected to increase since the next object is to encourage the early majority to join in the food system's more sustainable approaches. In the future a profound research should be made about how the early majority is reached, and the sustainability expansion from the micro level to macro level could be achieved. A great potential lies also in the green consumers who are not yet acting by using the green values as dominating factor in their actions. A research concerning how to engage green consumers to make more environmental friendly actions is also an interesting field of study, where answers are not yet to be seen.

5.1.2 Change

Educating and increasing knowledge were stated as a one of the most important manners persuading others to join in the alternative approaches by the pioneers. Learning was also argued to be the key factor for a successful change, and if the innovation adaptation is looked through that scope, educating individuals is the way to ease the innovation diffusion. One respondent highlighted also that for instance the youth is very open to education. Education also decreases resistance, since it makes the unknown more familiar. Hence, education and increasing knowledge are very effective ways to influence on individuals. But are learning and educating as means to accelerate the food system's transition fast enough, since the time is not on our side? Learning and adopting new schemas may take even generations, and all the same, the need for change is urgent. The study's pioneers can be considered as innovators or early adopters, but if the aim is to reach out the early majority as well, it is clear that they do not adopt innovations with the speed that the first adopter groups do. They are not as open to change as innovators or early adopters are, and resistance is very likely to come across in increasing amounts.

On the other hand, learning is stated as the key factor of successful change, and if educating is combined with positive environment, which also endorses change's success, some individuals could be persuaded to join in quite rapidly. Unfortunately, the respondents did not report any findings about positive encouragement, and for that reason the practical knowledge about change implementation using positive climate is missing from this study. In this study, the main concentration was on the emergent change. A couple of respondents also indicated that their change promoting behaviors were somewhat inconsistent and the best outcome was achieved when the possible adopter was receptive for the change. On the other hand, a couple of interviewees also were doing consistent change promoting behaviors and they told that some visible progress has happened. They also mentioned that the results years ago started actions related to informing and educating people are seen today, since people have learned a lot from those actions. One respondent even pondered that the informing has affected significantly the fact that food-related topics are so widely discussed today. These findings draw attention to the question about the forms of change: are emergent change and planned change

exclusive? Consequently, a future research concerning the best possible manners of implementing change is needed.

As mentioned above, several respondents were already acting as change agents, and some of them are maybe even acting unconsciously. The literature review also states that change emerges locally, and these change agents act locally. Consequently, this suggests that change is currently implementing. Respondents with tendencies that can be related to change agents, had already noticed the increased interest in food and wanted to ease the development and change by their actions. These findings strengthen the perception that early adopters act as opinion leaders, and on the other hand, change agents are needed. The literature review underlines that more complex the change is, the more specialists as change agents are needed. It is obvious that food system's transition is a very complex change, and it seems to be clear that change agents are definitely needed. The question is, who the best agents are since, for example, not every interviewee was willing to act as a change agent. Some of them felt that their choices are very personal and they did not even want to spread the agenda further by themselves. Based on the literature review, charismatic leaders might be the resolution for this problem. Charismatic leaders are those individuals who can engage others to follow them and create group outcomes. This connection between, innovators or early adopters, change agents, and charismatic leaders should be studied more to obtain the best possible change implementation.

Another crucial factor related to change, and also to innovation adoption, is timing. It would also be necessary to learn how the timing influences changes. Both successful innovations were profited from suitable timing. Since the time is ether of change, profiting from the timing would be essential for today's innovations as well. This research has studied only the micro-level and the change in small-scale; it would be crucial to study more about the linkage between the micro and macro-levels, so the innovations could spread to the critical mass, and later on be institutionalized.

5.1.3 Motivation

It is also notable that innovation diffusion might not evolve until individuals have motivation to act, and suitable conditions for maintaining, and enhancing, motivation. As the Maslow's need theory argue, when the lower needs are satisfied, individual's motivation is released for higher needs, such as self-actualization. Pioneers indicated that the decreasing of present prices of alternative manners seems to be mandatory, if innovation diffusion is wanted to be spread wider. Higher prices and increasing poverty was appearing in respondents' answers repeatedly when asked about the reasons why people do not follow their choice of action for the more sustainable food system.

According to the results, the individuals' underlying motivations in adopting innovations are usually either ethical stances such as environmental aspects, animal rights, and affecting by consuming behavior, or individuals' deep connect to countryside, or the influence obtained by individual's social circle. The results suggest that the greatest barriers of innovation diffusion are price, lack of easiness, lack of interest in food, and beliefs that independent of where the food origins, it is as good or sustainable as the organic or local food. The results suggested also that one barrier might be the fact that individual's social circle shows a lack of interested in food related issues. The results propose that telling about food's health, environmental, or animal tights related benefits others would adopt these approaches increasingly. Overall respondents highlighted the demand for education and increasing the knowledge about food and how sustainable actions should be made as easy as possible. The results also indicated that influencing on individual's social circle may be fruitful way for easing the adoption process, since the influence of the pressure from the social circle tends to rise as the innovations' adoption groups go further from the innovators.

On the other hand, collective actions were conducted by the pioneers, and strong indications can be seen to intrinsic motivation that drives pioneers into actions. Environmental aspects, health related aspects and animal rights are showing up both in the motivations why individuals adopt innovations and in the factors that could help others to join in these approaches. These three themes were pointed out more often as dominating motivation, and they indicate strongly to intrinsic motivation. Health related aspects might

also relate to exchange theory since individuals' are willing to sacrifice their immediate wants and needs for obtaining a healthier future for themselves. Still, health related aspects, for instance, when providing healthier food for children can be linked, as also environmental aspects and animal rights, to intrinsic motivation since those actions are conducted without a tangible reward. Both the theory and empirical part suggest that intrinsic motivation and enhancing it seems to be crucial when others are recruited to adopt innovations.

Even though intrinsic motivation seems to be in a significant position in engaging individual to alternative approaches and also to sustaining the approach, the acting party is very limited. The respondents told that large masses are not interested in food yet. Sometimes individuals' motivations remain also quite vague, since the individuals have not clarified inducements behind their actions even to themselves. The question about how to encourage people who just do not care about food, seems to be a major problem. If individuals can be motivated intrinsically, it will probably engage them more effectively to the action than using exchanges. However, the problem is, how to create intrinsic motivation? Can positive reinforcement create intrinsic motivation to individuals? Leadership skills and charismatic leadership might be a useful approach for this problem too, since charismatic leaders are able to engage individuals to actions and charismatic leaders' inducements are adopted by their followers. Another affecting factor is easiness. If the aim is to reach the early majority, alternative approaches should be easy.

Individuals' motivations seem to be very self-evident in some situations. For instance, environmental aspects seemed to be taken for granted by the respondents. If the respondents do not clarify the inducements to themselves, they do not even realize that those inducements could be used for marketing their approaches. Few respondents mentioned harnessing market powers to do collective actions, which inevitably reaches larger masses than acting only locally. It is likely that in the large masses lie some individuals that can be influenced since they might not even know about the food system's problems. This means that individuals could be also motivated by educating. Consequently, markets create conspicuousness to those individuals who have not even considered anything related to food. Some creative and visionary individuals might be found who are also interested in environmental issues.

The role of emotions on individual's actions and motivations has been only slightly touched in this study. It was mentioned that compassion and empathy might be individuals' driving forces to doing good things. The respondents also indicated compassion and empathy towards, for instance, animals and local food producers, which influenced their actions. In the literature review, it was also stated that positive emotions tend to create prosocial actions while negative emotions might block out individual's consciousness will to act on good purposes. Nevertheless, emotions' holistic effect on individuals' behavior remains indefinite. Some studies already have suggested that reasoning might be vain for individuals. If reasons do not work, maybe emotional effect could work? One interesting field of study would be a research that investigates the effect of emotions profoundly on individuals' actions. It would be necessary to comprehend whether emotions have an influence on motivations, on attitudes towards change, or on innovation and change resistance.

5.1.4 Positive reinforcement

One astonishing result was that based on the interviews, there was actually a total lack of positive reinforcement. Since the literature review highlights positive reinforcement repeatedly, the absence of it in the empirical part is startling. Some effect on the absence of positive reinforcement might have been with the layout of the questions. In the future interview questions the theme could be asked more straightforwardly, and hence resolve more profoundly how the respondent stand for positive reinforcement. Maybe during the interview session there was also too little time to ponder the answer, and therefore, the encouraging and effect of positive reinforcement did not appear. Even though the questions might have had some limitations, it does not alone resolve the drastic difference between theory and empirical part.

One possible reason for the absence of positive reinforcement is the cultural differences; maybe Finland's cultural characteristics differ from the authors' of the literature review cultural background, since most of the authors originate from the United States of America. Nevertheless, this finding alone does not either resolve the lack of positive reinforcement, since some authors do originate around the globe, for instance from Bra-

zil, Turkey, and Italy, too. However, some of the absence might still be explained by cultural differences, hence Anglo-American culture may highlight positive environment more than Northern culture. Theory also emphasizes that individuals are influenced by the actions. It seems that local-knowledge is an essential factor when the aim is to resolve how to create macro-level changes. This finding creates several questions: What actually is the effect of Northern location to positive reinforcement? Do cultural differences play a crucial role overall in innovation adaptation and change implementation? What are the differences, for instance, in Finland, in the United States, and in China? This discovery points out a major demand for a future research. It is crucial to resolve how positive reinforcement influences here but also in other countries.

The absence of positive reinforcement cannot be explained only by cultural differences for that reason either, since two respondents were trying to grasp a little the concept of encouraging, though without any success. However, these two respondents were capable of telling that preaching does not work, and also several other respondents told that maybe negative images rejects possible adopters. This indicates that interviewees also can to some extent sense the effect of encouraging, just not in its total width. Maybe the whole concept of positive reinforcement is too strange here? Maybe the interviewees did not even to think encouraging as a factor in motivating others, since it is a fairly new concept of doing things? One crucial question also needs resolving: can the absence of positive reinforcement be one of the major reasons why individuals are not yet interested in the food system's sustainability? Is the absence of positive reinforcement overall a crucial reason why innovations are rejected and changes resisted?

Some pioneers might live in their own limited reality, where they do not see further than their own environment of actions. For them their chosen approach is like a lifestyle and very self-evident, and consequently, they might not realize that there is a major possibility to growth. Some pioneers might also have strong self-regulation and they might think that food is very personal thing and therefore it should not be obtruded on others. Many respondents mentioned that they have noticed the trend curve related to food issues, and all of the respondents told that their chosen approach should be recommended also to others. Nevertheless, only couple respondents were already taking advantage from the global trend by acting as a change agent, and some of them wanted to stay in

their own comfort zone and did not even reach to growth. This tendency to stay in one's limited market niche can be related to micro-entrants and their typical stage of stagnation after the entry. All in all, pioneers simply seem to be having problems in comprehending the concept of positive reinforcement, its possibilities, and consequently reasons why to encourage others to follow the alternative approaches. Maybe the way to go forward is to implement the basics of positive reinforcement holistically all over the food system.

Interviewees may have also thought that educating and telling about the positive benefits of more sustainable approaches are actually positive reinforcement. Pioneers also tend to feel strongly that their chosen approach is better than the mainstream's. In addition, some of the respondents mentioned that the food system's more sustainable approaches might have still some negative images which affect others. Consequently, if these three elements are combined, the result might be far away from encouraging in a positive climate. Even though pioneers do not mean to lecture on possible adopters, their message might come out on too preachy tone from the possible adopter's point of view. The pioneers' approaches might be so self-evident to their selves that they do not recognize the attitudes of others. Preaching is also easy, and everyone does not have the abilities to create an encouraging climate. Unfortunately, positive climate and positive experiences are needed if individual's intrinsic motivation is wanted to endorse.

Nevertheless, sometimes pioneers do act encouraging and persuading others, but therein lies also some problems; pioneers encourage others to join in by advocating, for example, in health or environmental benefits. These means do appeal to health or environmental conscious individuals, but the means are simply too inadequate for larger masses. The difficulty comes from the large mass, which is not that interested in food issues. When the aim is to appeal to large masses, it might be necessary to harness the market powers to create large-scale changes. Negative images keep on troubling food system's alternative approaches still, so the solution should begin by creating positive images. Not all the pioneers are talented in marketing, and not everyone needs to be, but competent marketers are essential when the agenda is spread wider. These assumptions draw a similar conclusion as was presented during the discussion about change; special change agents are very much needed and charismatic leadership seems to be also in a crucial

role when implementing changes. Special individuals who are capable of creating positive images and experiences are rising into a significant position.

It seems that tangible goals, such as decreasing one's food loss, can be obtained by a small amount of intrinsic motivation or even with exchanges, hence the individual sees the decreasing amount of waste and realizes that the act is good for the environment. As an exchange the individual gains cleaner conscience and might save money in waste disposal charges. On the other hand, a sustainable food system is very intangible concept. Individuals cannot see the overuse of nutrients or the environmental impacts of livestock production in their every-day lives. Consequently, the consequences of the broken food system are seen too late, and individuals create resistance towards threats that move them from familiar ground towards the unknown. People do not want to believe in severe environmental challenges, since it means that their lifestyle is going to change drastically. Only a cleaner conscience does not suffice for the large masses and conquer their resistance. Positive reinforcement enhances intrinsic motivation, which is needed desperately. This suggests that without positive reinforcement people cannot be motivated to engage themselves into such an intangible aims as food system's sustainability. Given from this finding, it can be argued that the lack of positive reinforcement delays innovation diffusion. For further studies it is suggested to test this hypothesis more.

Positive reinforcement may be lacking in the interviews, but regardless of that, it might be said that many of the pioneers have however exposed to positive reinforcement. Several answers indicated to childhood memories and to the deep contact to country side. Those are definitely positive memories that have influenced on respondents during their, very receptive phase of life, childhood. Even though respondents were not able to catch up the theory of encouraging, there are some indications that they have experienced it still. These indications can be also linked to the theory's assumption that positive actions create more positive actions. Positive childhood memories suggest also that schemas that are adopted from the past generation are vital in individuals present time. This finding indicates that it is essential to make positive actions, since the positive actions affect the individuals in the background of their minds even generations of time.

It is clear that more profound studies are needed. Given indications from the literature review positive reinforcement seems to be having a crucial significance on change implementation and individuals' motivation. However, this study does not explain how negative feedback affects. Positive reinforcement is suggested to decrease anxiety and mind's unconscious forces. What about negative reinforcement, it is still indefinite if the negative reinforcement, as a concept, has as united conclusions as the positive reinforcement has? It is not clear either, does the negative reinforcement destroy individual's motivation, and does the negative reinforcement implant innovation- and change resistances even more strictly in to an individual. Another crucial point is that since individuals are not homogenous, what actually positive reinforcement is to an individual? Before a systematical plan of using positive reinforcement to obtain a sustainable food system, there should be more precise comprehension how different kind of individuals realize the positive reinforcement. This is essential also because the lack of encouraging was so outstanding in the study's empirical part.

5.2 Conceptual framework based on the empirical findings

At the end of the literature review the main findings were presented based on the theory. The conceptual framework was also used as a subsidiary hypothesis for the empirical part of the study, and therefore, practice was already included in the conceptual framework as well. The interviewees' answers thought to be fairly similar with the literature's findings. Figure 11 presents the conceptual framework based on the empirical findings of the study.

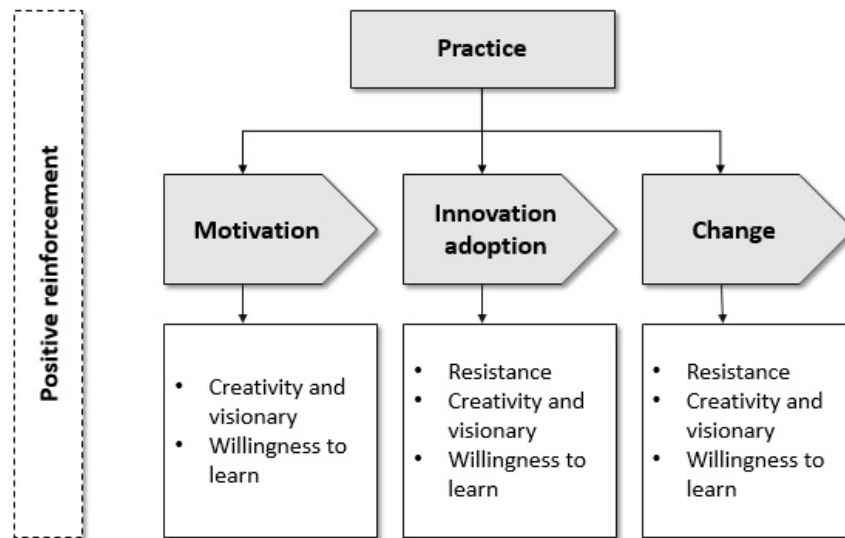


Figure 11. Conceptual framework based on the empirical data.

The theory and empirical findings endorsed each other relatively much, but there were some differences as well. The respondents had discovered the resistance towards innovations and change. Themes of creativity and visionary, and willingness to learn appeared also in the responses. The most outstanding difference between the theory and the empirical part was, as was stated in the previous chapters, the absence of positive reinforcement. Another difference was the absence of leadership in the empirical part. The interviewees did not indicate any connection between leadership behaviors and motivation, innovation adoption, or change in their responses. On the other hand, resistance towards change and innovation adoption can be seen in the respondents' answers that concerned about prices, the lack of easiness, and the lack of interested in food. The willingness to learn appeared as interviewees' learning from the benefits of the alternative approaches and their interest in food issues overall. Creativity and visionary appeared by how pioneers' started to think differently than the mainstream and how they adopted or even created new approaches to act.

5.3 Future's successful innovation

The results gave indications about what were approximately twenty years ago the barriers for food system's innovations and what factors finally enabled the innovation diffusion to the critical mass. One of the research's aim was to make a plausible prediction

using retrospection. If later event implies preceding ones, a prediction for future's successful innovation can be made by using a certain pattern, which gives a hint what might happen in the future with similar circumstances. In other words, this prediction is based on yesterday's successful innovations and it is supposed to be an educated guess that gives a clue on which today's innovation could thrive and reach the critical mass.

The chosen innovation likely to success is the expansion of local food markets. In Finland, there are already some local food markets, but given from the literature review and interviews' responses, there are elements for markets' successful expand. A couple of respondents told that there is a demand for local food markets, and markets should be the next development step. Table 7 presents the strengths, weaknesses, opportunities, and threats of the local food markets' possible expansion using a SWOT analysis. The SWOT analysis is used since it is used to assess the internal strengths and weaknesses of the organization in the light of the opportunities and threats posed by the environment in which it operates (Burnes 2000, 200).

Table 7. SWOT analysis of local food market's future expansion.

<p>Strengths</p> <ul style="list-style-type: none"> -Easy for consumers -Has environmental benefits, e.g. shorter distributions and better use of seasonal products -Products' better traceability: animal rights and health issues can be traced -Health: short distributions, nutrients saved -Contact to the countryside -Possibility to make a stance by consuming behavior 	<p>Weaknesses</p> <ul style="list-style-type: none"> -Not enough conspicuousness -Lack of interest in food from the large masses -Micro-entrants usually avoid growth
<p>Opportunities</p> <ul style="list-style-type: none"> -Timing -Similarities with organic food's path to ordinary consumers -Possibility of cheaper prices since middlemen can be cutted out -Creates competition to markets -Micro-entrants encounter fewer entry barriers 	<p>Threats</p> <ul style="list-style-type: none"> -Financial issues: can still be too expensive -Timing -Big chains might still complicate entry -Consumer sufficiency -How to avoid typical stagnation

Local food markets have some obvious benefits that advocate markets' success. First of all, local food markets are extremely easy to consumers. The lack of easiness was one of the main problems that the interviewees mentioned decelerating the innovation diffusion, and easiness was also said frequently when asked on what manners others could join in the alternative approaches. Since local food markets resemble the regular markets and they are easy to go to, and one can find almost everything under one roof, local food markets could gain consumers from the early majority and even from those consumers who do not have any specific interest in food.

Factors that are linked to intrinsic motivation profit also from local food markets. Local food is usually produced nearby the market and consequently, producers are also from the near. Markets reduce middlemen and the food has a better traceability. Traceability cultivates transparency, and therefore, animal rights, health issues, and productions' environmental issues are easier to track down. Local food has shorter distributions,

which decreases emissions from the distribution phase and also helps saving the food's nutrients. Local food tends to emphasize the use of seasonal products, which are labelled in general as environmentally friendly products. Since the food comes nearby, one might even know the producer, which helps to accomplish even more profound contact to the countryside. The individuals are also capable of doing good actions with their buying behavior in local food markets, since the money helps to keep the area vital. These factors plead deeply to individual's intrinsic motivation and give a meaning for individual's actions. In addition, these benefits were mentioned several times during the interviews as factors affecting the innovation adoption.

On the other hand, local food markets have also some disadvantages. An ordinary consumer rarely even knows that local food markets exist and unfortunately, there is still a great lack of interest in food from the large masses. The lack of interest is one of the major reasons for rejecting the innovations given by the interviewees. Another weakness is that local food markets are micro-entrants, who usually want to stay in their limited consumer niche and tend to avoid growth. If local food markets do not try to harness markets for their cause, success becomes almost impossible.

Even though some weaknesses are undeniable, there are also many opportunities. Local food markets create healthy competition to Finland's grocery markets, which are currently dominated by only two actors. Some individuals are extremely annoyed because of the market situation, hence local food markets might obtain consumers from the masses due to the dysfunctional markets. Local food's development also enables cheaper prices since the middlemen can be disposed and, like one respondent told, the cheapest products come straight from the producers. Interviewees indicated that expensive prices were the most significant reason for rejecting innovations. If local food markets are able to reduce prices, conquering masses should ease significantly. As mentioned above, local food markets are micro-entrants, and micro-entrants have also some benefits; entering micro-markets encounter only little entry barriers.

One essential opportunity is that local food's path to consumers seems to have had many linkages to organic food's progress twenty years ago. It is plausible that local food will reach the critical mass in the near future, like organic food reached in the past.

However, the question of timing affects the diffusion and change implementation; timing can be either an opportunity or a threat to local food markets. If the timing is right, local food market's expansion can accelerate drastically, but if the timing goes wrong, local food markets might fade away as unprofitable.

Local food markets are currently entering the micro markets successfully and the interest in food is growing, which indicates that there are elements for greater success. But there lies also a threat and, since it is problematic how to prevent the micro entrants' typical clotting after the entry and continue to reaching out for the critical masses? To avoid the stagnation, third-party change agents and even charismatic leaders could be used, so the implementation of change would ease and the individual could engage tighter to the large-scale change.

The prices of local food might also stay seemingly high compared to regular markets. The early majority is notably more price-sensitive than the first two adopter groups and price affects strongly the innovation rejection. Consequently, a question arises about the consumer sufficiency. If masses do not interest in food and food's origin, there might not be enough consumers for the local food markets. One threat is also that if local food markets are seen as threats by the large supermarket chains, they probably try to harm local food markets' entries even though those local food markets are currently seen only as micro-entrants.

In total four of the interviewees were linked to local food, which might have influenced this prediction, but since the local food market answers to many challenges, which concerned innovation diffusion's barriers, given from all of the interviewees, there appears to be a real opportunity to obtain the critical mass by adding local food markets.

Successful changes are usually implemented locally, which is seen already from the other handled innovative approaches as well. Most of the pioneers have started acting locally and many of them have already tempted some early adopters also to join in. Combining this finding with the fact that pioneers also emphasize educating others, there might be ingredients for the expansion also in other approaches. However, it is mandatory to remember the unpredictable nature of change, and the factor of suitable

time window for change. Even if, based on the theory and the interviews, most of the innovations seems to be fertile, the reality is challenging to predict. For that reason the local food market has been chosen for the most probable success, in addition, to its numerous benefits.

6. CONCLUSIONS

Given from the study's findings, individuals adopt innovations based on their personal, ethical stances, or their intrinsic motivation. Based on the empirical part, individuals' motivations to adopt food related innovations are typically environmental aspects, deep contact to countryside, health related aspects, and the possibility to make an impact by consuming behavior. These reasons can be seen linked to the individual's intrinsic motivation, which was endorsed by the literature review, as one of the most prominent means to engage individuals into actions. According to the empirical part, the individual's intrinsic motivation has a crucial role in easing the innovation diffusion.

The empirical part suggests that innovations are rejected mainly because of the higher price, the lack of the easiness, and the lack of the interested in food. The price sensitivity seems to be connected with Maslow's hierarchy of needs. If an individual does not have a stable enough economical situation, he/she is not able to release his/her motivation to higher purposes. The findings indicate that if the early majority is to be reached, new approaches should be reasonably priced and as easy as possible for the individuals. How to motivate the individuals who have no interested in food is still unclear, and it should be studied in future researches. The theory suggests that charismatic leaders and change agents are needed in order to create large-scale changes.

The respondents suggested that persuading others to adopt alternative approaches should happen by educating, using lower prices, highlighting health-related or environmental aspects. They also mentioned that a food-related crisis will affect individuals and awake their interest in food. A food-related crisis was mentioned during the literature review, but the effect of the crisis has a linkage also with the timing. A crisis creates a favorable timing for food system innovations, but the profound comprehension of timing is still unclear. Education is underlined as being the catalysis of change by the literature review. These findings suggest that the early majority can be achieved by using education, lower prices, and motivating individuals intrinsically.

The most crucial finding of this research was that the interviewees did not acknowledge the effect of positive reinforcement since the effect of positive reinforcement was em-

phasized in the theoretical part. In the empirical part, positive reinforcement is conspicuously absent; only two respondents indicated that preaching is not a fruitful way to proceed the innovation diffusion. In addition, it is likely that the respondents had felt some positive reinforcement, but they did not comprehend it and its effect on others. On the other hand, the theory argues that positive reinforcement is playing a crucial role in change implementation and also in creating and enhancing individual's intrinsic motivation. This wide difference between the theory and the empirical part rises a demand for future research. The finding suggests that the absence of positive reinforcement postpones innovation diffusion drastically. This suggestion should be tested in the future research.

Figure 12 introduces the new conceptual framework based on the theory and empirical part of this study. The individuals' creativity and visionary and willingness to learn are this research's continuous trends that are affecting the study's main themes, motivation, innovation adoption and change based on the findings from the literature review and the interviews. Based on the findings, the individuals who possess creativity or some vision and have an inherent interest in new things are most likely to adopt alternative approaches. These findings highlight strongly intrinsic motivation and openness to change. On the other hand, based on the findings from the literature, but also from the responses, resistance towards change and innovations is a well acknowledged phenomenon.

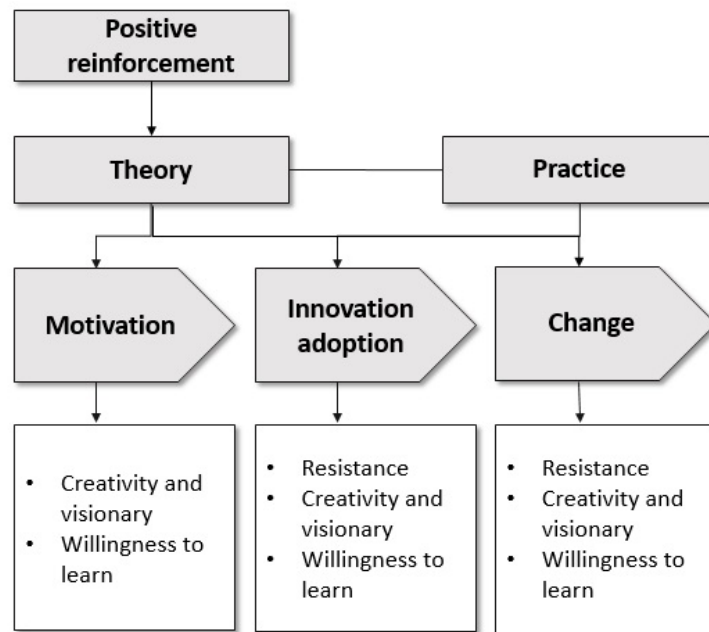


Figure 12. New conceptual framework based on the theory and empirical part.

Given from the study's findings, a prediction was made using retrospection. Pioneers who had created or adopted innovations that had already reached the critical mass indicated that their success was helped by the right timing, the increase of knowledge, positive images of organic food, and the easiness for the consumers. These findings are very similar with the findings of why innovations are adopted or rejected and how others could be persuaded to join in. Based on the theory and the empirical part, increasing knowledge and educating are essential for the successful innovation diffusion. Using retrospection to create a prediction from future, the most probable future's innovation could be the expansion of the food markets. Local food markets can answer for many of the indicated barriers of innovation diffusion mentioned by the respondents and have some clear strengths and opportunities that can ease the markets' innovation diffusion.

The research's largest limitation was that the sample was narrow, and there could have been more interviewees from the different phases of the food system to strengthen the findings. A wider range of innovations considering the food system would have created added value for the research too. The interviews were also conducted only in Finland, and the study has no information about other cultures and cultural differences considering innovation diffusion, change, or motivation. Interview questions also failed to resolve the pioneers' thoughts about the positive reinforcement profoundly. Interviews

were semi-structured, and therefore, strict statistical comparisons could not have been made between the responses. Statistical comparison could have given some extra knowledge about the pioneers' thoughts, but for that aim, another research should be made considering the same theme by collecting a larger sample and using quantitative data analysis. Since the interviews were conducted in Finnish, some minor accent differences might have happened during the translation process into English.

Some important tasks for the future research are also to study more precisely how the timing affects the innovation diffusion and what are the means to decrease innovation and change resistance. The demand for this study is clear, since resistance will likely increase when the early majority is reached out.

The most significant difference between the theory and the empirical part was the lack of positive reinforcement in the empirical part. It is essential to study more the effect of positive reinforcement here and also abroad. Positive reinforcement is suggested by the theory to be one significant factor in motivating individuals intrinsically; the effect of positive reinforcement on motivating others should be studied profoundly. The effect of positive reinforcement combined with charismatic leaders should be studied more too.

This research concentrated on the micro level, and the next step for the development of sustainable food system is to reach out to the critical mass and consequently to the macro level through the meso-phase. The studied pioneers were innovators or early adopters, but to create a holistic transformation, the early majority is needed to be engaged to the innovation adoption. The problem is that the large masses are not yet interested in food. How to motivate unmotivated individuals to join in, will be the next challenge. The effect of charismatic leaders and change agents in motivating unmotivated individuals needs a more precise research.

This study gives some references that the mean to go forward is by educating others. On the other hand, educating might take time far too much. It seems that without the effect of positive reinforcement, people cannot be motivated to engage themselves into such an intangible goal as food system's sustainability is.

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Interview questions:

- Age, gender, alternative approach?
- How long you have acted differently than the mainstream?
- Why you started to act differently?
 - a. How was the timing?
 - b. What were the inducements?
- Are you happy with the chosen alternative approach?
 - a. Are you feeling well?
 - b. Is the choice healthy, ecological or economical?
- Is the alternative approach common?
 - a. Why is it common?
 - b. Why it is not common?
- Would you recommend this alternative approach to others too?
 - a. If you would recommend, why would you recommend?
 - b. On what manners would you recommend it?