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COMBATING FOOD WASTE THROUGH SOCIAL ENTERPRISES

VERSPILLING IS VERRUKKELIJK : A NESTED CASE STUDY



Summary

This thesis bridges the gaps and connects different bodies of literature. It highlights social enterprises which deal with food waste in an upcycling way by converting surplus food into new products. Following, it delves into concept of social capital initiated in a network organisation with its structural, relational and cognitive dimensions, and seeks to find out what influence these dimensions have on innovation adoption of the enterprises, with the knowledge absorptive capacity affecting this influence. The research question asks: *In what ways does the social capital of the network organisation influences social enterprises' adoption of innovation and what is the role of their knowledge absorptive capacities in this regard?*

Analysing relationships between the concepts at stake, this thesis illustrates an exploratory research of qualitative nested case study generating four subcases. Triangulation of methods, consisting of desk research of a secondary data and interviews of open questions, was applied to gather the required data for answering of the research question.

The research concludes that the relationship between the enterprises' innovation adoption and the social capital presented in the network organisation is absent. In neither of the cases a direct or indirect link could have been established between an innovation adoption as a result of the social capital's assets and recourses derived from the network organisation, for which possible explanation are outlined. The links observed from the findings present a more 'modest outcomes', which although are not directly connected to innovation, still demonstrate meaningful ways of how the enterprises can benefit with their participation in the network. Additionally, the findings highlight the importance of the absorptive capacity for innovation adoption. The knowledge absorptive capacity proved to play a considerable role in the entrepreneurs' assessment of the network's social capital influence on their enterprises and of the overall benefits which their participation in the network offers. After drawing of the conclusions, recommendations and suggestions for improvements of the network organisation are discussed, as well as opportunities for a further research.

Keywords: social capital, networks, absorptive capacity, adoption of innovation, social enterprises, food waste

Preface & Acknowledgement

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1. Introduction

The awareness of food waste significantly increased within the past years. Going hand in hand with increased emphasis on sustainable development and circular economy, as in the case of incorporation of the food waste cut in the 2015 United Nation Sustainable Development Goals (UN, Goal 12.3), concern of the amount of food our society wastes advances across the globe.

The disclosure of this issue and the raised attention naturally stimulates different incentives how to possibly solve the problem and cut the food waste. When thinking of a food waste as a complex problem, this doesn't come as surprising, since multifaceted problems commonly come with equally multifaceted opportunities and solutions how to deal with them. Some of these solutions represent social enterprises, introducing new ways of how to deal with the waste that people produce. For instance, there exist several which convert surplus food, such as fruits and vegetables that would have otherwise ended up in landfills, into new products. By creating value-added products from the surplus food which can be wholesaled again, the overall objective of these enterprises is to primarily have a social impact rather than to make a profit for their owners. Hence, we can talk about rising number of social enterprises whose ambition is to deal with food waste in an innovative, upcycling way. Such social enterprises represent the focus point of this thesis.

Generally understood as an innovative hybrid models that meet both social and economic objectives, social enterprises attack social problems caused by shortcomings in existing markets and social welfare and seek to create systemic changes with sustainable improvements (Urban and Gaffurini, 2017:1). Fostering dynamic solutions and promoting common good, innovation represents an essential for social enterprises. As a matter of fact, innovation is a key determinant of survival for social enterprises, just as it is nowadays for any other organisation (Urban and Gaffurini, 2017:2). Increasing attention is being put on social enterprises as grantors of social innovation while at the same time an emphasis is being placed on their abilities to innovate themselves. Pressures to adopt innovation is placed upon the social enterprises as they need to keep up with the dynamic environments. Particularly in the present time when food waste seems to be a 'buzzword' and the tendency of entrepreneurs setting up establishments similar to the existing ones is promptly increasing.

A present tendency for stimulating the innovation seem to be 'grouping' of various actors into different platforms, networks or alliances. Reasoning could be underpinned with broad scholarly debate (Cohen and Levinthal 1990, Klijn et al. 2010, Klijn and Koppenjan 2016, Popp et al. 2013, Kittikunchotiwut 2015, Sørensen and Torfing 2011, Gilsing et al. 2008, etc.) which suggest that innovation can be facilitated when resulting from interactions and exchanges of resources between different actors. The same applies for the social enterprises, which have the innovation placed at the core of their existence. S.-h.

Liao et al. (2007) label such tendency as 'communities of practices' and describes the concept as a group of people or organisations who share a concern, a set of problems, a passion about a topic and aims to collectively learn about it. By interacting together, the 'community of practice' operates as a 'social learning system' where actors connect to solve problems, share ideas and expertise, build tools, develop relationships, facilitate innovation etc.

The focus of the following thesis is in a like manner a 'community of practice', epitomized in a network organisation called *Verspillend is Verrukkelijk*, which encompasses social enterprises that share concern about food waste and an ambition to collectively deal with this concern. The aspiration of the research is to find out in what ways does the social capital initiated through the 'grouping' of the different social enterprises in a network organisation influences their adoption of innovation.

1.1. Problem statement and research objectives

By perceiving the network organisation as presenting social capital, which in a simple narrative speaks for the 'social connections', this thesis builds on a fruitful scholarly discussion on this concept. Applying a mixed perspective (Chengke Yu and Du Junshu, 2013), both the network structure as well as the interactions between the participating enterprises are recognised as defining the social capital presented for the enterprises. Social capital, embodied in structural, relational and cognitive dimensions, offers valuable assets which can be utilized by the enterprises and enables them to exchange knowledge and resources. These in turn represent the essentials for an innovation facilitation and its subsequent adoption.

Whether the social enterprises benefit from the valuable assets and knowledge resources derived from the social capital of the network organisation, depends on the enterprises' abilities to recognise the social capital offered, their motivation to benefit from it as well as on their capabilities to do so. The capabilities to acquire, assimilate, transform and exploit the external knowledge coming from the network, demonstrate the knowledge absorptive capacity. According to the literature (Cohen and Levinthal 1990, Kittikunchotiwut 2015 & 2018, S.-h. Liao et al. 2007, Y.-S. Chen et al. 2009, etc.), absorptive capacity plays an important role for innovation adoption, presenting an interesting relationship at work to examine.

The main problem of this thesis is to find out in what ways does the social capital of the network organisation influences the individual social enterprises participating in the network and their adoption of innovation, with the knowledge absorptive capacity expecting to provide an explanation for the differences among the enterprises.

The objective is to examine four social enterprises of the Verspillings Verrukkelijk platform, representing four subcases of the case study, and explore the influence of structural, relational and cognitive dimensions of social capital on them. A following objective is to consider the role of the enterprises' knowledge absorptive capacity on their abilities to utilize the assets of the social capital and assess the role it plays in their adoption of innovation and its type.

1.2. Research question

In what ways does the social capital of the network organisation influences social enterprises' adoption of innovation and what is the role of their knowledge absorptive capacities in this regard?

1.2.1. Sub research questions

To what extent is the influence of the network organisation derived from the structural dimension, relational dimension or cognitive dimension of social capital?

What role does the enterprises' knowledge absorptive capacity plays in their abilities to utilize the social capital offered? What role does it play in their adoption of innovation?

1.3. Relevance of the research

1.3.1. Scientific relevance

The research on food waste is rather broad and has essentially amplified in the recent years. In Europe especially since the European Union dedicated the year 2014 as a 'European year against food waste' (European Commission 2014) and facilitated consequent actions against food waste in the years afterwards. Similarly, there exist a comprehensive research on the topic of social enterprises. However, there has been very little attention given to the combination of these two domains. As a matter of fact, it seems like the only junction between them, although even this one rather limited, has been devoted to the charities distributing the otherwise wasted food. There exist however different ways of dealing with wasted food, which seems to be often overlooked. The first contribution of this thesis therefore lies in combination of the two already researched aspects of food waste and social enterprises together and thus discuss something which is not new per se, social enterprises dealing with food waste exist, but something which seems to be rather overlooked in the academic literature.

Although the studies of networks and its implications for the member organisations, whether private businesses; public actors; or hybrid organisation representing the social enterprises, is quickly expanding in theories, empirical studies are still scarce (Folmer, Nederveen and Schutjens, 2018:471). The scientific relevance of this thesis can be therefore regarded as being an empirical case study, contributing to the research on networks and entrepreneurship.

Furthermore, particularly by the qualitative techniques implied, this thesis contributes to the scarcity of research investigating the social capital and absorptive capacity through qualitative methods. Although social capital is very hard to grasp and measured, the frequency of quantitative studies seems to predominate. Agreeing with Anderson et al. (2007:265), the nature and the effects of social capital can be truly observed and appreciated only through qualitative techniques, for which the same can be said about the absorptive capacity.

In regard to the social capital, the thesis adds to the literature examining the three distinctive dimensions of social capital and their effects separately, improving the genuine understanding of these dimensions as well as the overall relevance of the social capital. It shall also enhance the understanding whether the distinctive dimensions of social capital have a direct effect on the adoption of innovation, moderated through the knowledge absorptive capacity of individual social enterprises. Furthermore, a small contribution will be done to a broader research on the role of the absorptive capacity in innovation adoption.

All in all, the thesis aims to contribute to the academic literature by exploring the problem of food waste through the lenses of social enterprises dealing with it and empirically discovers how a network formation could benefit such enterprises in a form of social capital and potentially facilitate their adoption of innovation.

1.3.2. Societal relevance

The focus point of this thesis, being social enterprises dealing with food waste, can be regarded as societal relevance in itself. The problem of food waste is a global societal issue, but the applicability could be highlighted particularly for the Netherlands, being one of the European Member States with the largest amount of total food wasted (European Parliament News, 2017: infographic).

By giving research attention to the social enterprises whose existence demonstrates this problem as well as potential ways how to deal with it, the thesis shall increase the visibility of such enterprises, and so hopefully a small contribution and a step closer to tackling of the food waste can be done.

Also, another contribution of this thesis will be to hopefully assist these enterprises to better understand the ways in which their participation in a network organisation influences their innovation. Particularly it could help them to realize the existence of social capital as something which is offered to them by the virtue of the network organisation and as something which they can benefit from. Literature indicates that the companies who realize the presence of social capital as an input into their operation have a significant advantage over the ones who do not recognise such presence (Ofori and Sackey, 2010). Thereof, this research could prevent the enterprises from inattention and help them to explicitly recognise the social capital with its assets.

Even though the findings of this thesis will be tied to a singular network organisation and its affiliated enterprises, the discussion part will aim to discover broader relevance and greater implications. These could be potentially applicable for other social enterprises, such as for those who seek to increase their adoption of innovation, as well as for similar network organisations which assemble social enterprises.

Moreover, the exploration of network organization by the virtue of social capital, could initiate various recommendations as well as actions, which could possibly lead to an establishment of more networks grouping social enterprises. Likewise, it could open opportunities for more inquiries on social enterprises dealing with food waste, drawing more attention to the problem of food waste in general.

2. Theoretical framework

2.1. Introduction

The aim of the following chapters will be to take a closer look at the relevant theoretical concepts whose proper understanding serve as a foundation to analyse the problem at stake and to answer the research question of this thesis. The theoretical background will at first introduce social economy and social enterprises. Moving on to the aspect of innovation adoption, an assistance guide applied in this thesis to assess the different types of the innovation adoption will be introduced. Proceeding to the broad conceptualisation and different perspectives on social capital, the focus will be put primarily on the Nahapiet and Ghoshal (1998) dimensions of social capital, their individual facets and effects. Next, the absorptive capacity will be discussed, putting emphasis on the four dimensions identified by Zahra and George (2002). Last but not least, the clarification of the knowledge absorptive capacity will be provided with overall assumptions of its influence on the adoption of innovation.

2.2. Social enterprises

Literature concerning social enterprises is rather extensive, involving numerous academic disciplines and their consecutive traditions. Being affiliated with the social economy which similarly lacks a singular generally accepted definition (Bride et al., 2009:77), the absence, or better to say the affluence of conceptualisations and definitions of what social enterprises represent, might not be very surprising.

Social economy, also known as the '*third sector*' has different traditions in different policy contexts. Amin et al. (in Bride et al., 2009:77), for instance, identified considerable international differences in the ways in which the social economy and its relationship to market, state and civil society are envisioned.

A broader distinction can be made between the US & UK tradition and European, essentially Western European tradition. The US & UK tradition implies more economic/entrepreneurship approach towards social economy and perceive the organisations of social economy, and thereof also the social enterprises, more as 'businesses' with primary social objectives. For Trivedi and Stokols (2011:5), the US & UK tradition emphasizes more the entrepreneurial culture and the individual entrepreneur's efforts in creating, managing and sustaining the venue. The European tradition on the other hand, emphasizes a more collective or community owned efforts with social enterprises characterized by stakeholder democracy, and so implying a more political/ideological approach which envisages social economy as a sector which can lever institutional change (Bride et al., 2009:79). Such perception on the third sector could delineate social enterprises as initiated by citizens who seek to provide an expanded range of services to meet the unmet social needs - something that governments at any level failed to provide or did not provide effectively.

Social enterprises could be thereof assessed as *'governance in the gaps'* (Duniam and Eversole, 2016: 306), operating at borderline between the public and private sectors (OECD, 1999:7). Operating at this borderline portrays the *'hybrid nature'* of social enterprises, as they pursue a double orientation such as public/social and market/business (Szymanska and Jegers, 2016:502). Social enterprises are thereof aiming to pursue a dual mission: meeting the goals of both being financially sustainability as well as generating of the social purposes (Van Meerkerk et al., 2018:3).

Social enterprises' general orientation is towards the imbalances in the social, structural or political system, which they aim to address by producing and sustaining positive social changes (Trivedi and Stokols (2011:4). Building on this and on works of other scholars Trivedi and Stokols (2011:4) formulate a definition of social enterprises as *'a high-impact ventures that address long-standing socio-environmental problems, focus on long-term collaborative community capacity building, rely on collective wisdom and experience, foster the creation of knowledge and networks and facilitate sustained positive social change'*.

Bride et al. (2009) highlight that the different traditions of social economy treat and define social enterprises in different manners. Although the definitions vary considerably, they all have in common the essential criterion of social enterprises having a social purpose (or impact), so *'social goals'* are superior to the *'economic gains'*. The character of having a social purpose can be therefore regarded as a central substance of social enterprises. Moreover, a common denominator in many of the definitions is the notion of innovation, with a rising importance of social enterprises as the *'actors who can drive social change through innovation'* (Schöning, 2013:111). Trivedi and Stokols (2011:7) encapsulate the definitional efforts into four common themes from which two more can be added to the previously described: an emphasis on the social activist role played by the social entrepreneur and creation and usage of the economic profit as a means to solve a social problem rather than as an end in itself.

2.3. Innovation adoption

Innovation as a term is rather vague, acquiring different understandings. It can be broadly characterized as a creation and adoption of something new that creates value for the organization that adopts it (Baldwin and Curley 2007 in Osburg, 2013:14). Depending on the study field, scholars have different ideas on what precisely innovation is, what are its forms or what factors facilitate innovation.

According to some scholars (e.g. Jamali et al. 2011, Zheng 2010), innovation may be considered as a new idea, which is often a recombination of old, already existing ideas, but perceived as new by the organisation involved with them. As March and Simon suggest (1958 in Cohen and Levinthal, 1990:128), most innovations result from borrowing rather than invention. As such, outside sources of knowledge, may be considered as important pre-conditions for innovation. External knowledge allows the

organization's already existing knowledge to be expanded, and so enables the organization's innovation to take place. As Kittikunchotiwut (2018:22) points out, '*innovation is the contemporary unification of knowledge that organizations already possess and the new knowledge that they have gathered*'. External knowledge is believed to be distributed over various actors in the organisational external environment and accessible through a multitude of channels, and so the innovation processes itself are in a like manner distributed across a number of actors (Spithoven et. al, 2010:130).

Stressing the importance of external knowledge, the academic literature frequently discusses the positive effects of networks or interorganizational collaboration for an innovation. Highlighting multiple reasons why networks could stimulate innovation, the most basic one seems to be the facilitation of knowledge- and recourse-sharing which takes place in networks (Pérez-Luño et al., 2011:1370), allowing '*open innovation*' to take place (Osburg, 2013). This is in line with the recent theorizing on innovation, which in contrast to the earlier theories stressing the technological forms explained mostly through a combination of tangible forms of capital (e.g. the physical or financial capital), places emphasis and highlights the crucial role of the intangible sources of capital also. Intangible sources of capital, such as the social capital, are important for an effective exchange of knowledge and resources, triggering the innovation (Jamali et al., 2011:378).

Innovation could be therefore assessed as a convergence of different knowledge, particularly the combination of new external knowledge with the one which an organization already possess, and as such, the creation of innovation indicates primarily interactive processes of exchange between more actors.

Studies on innovation span a large landscape, ranging from individual creativity, innovation diffusion, innovating and innovativeness, up to an innovation adoption (Damanpour 1991 in Zheng, 2010:154). In the following thesis, the focus is being placed on the adoption of innovation. Osburg (2013) refers to a theory of '*overcoming the chasm*', which epitomizes the difficulties of moving a great idea or invention into an actual adoption of innovation. As pointed out, it is not sufficient to have a great idea, the challenge lies in the implementation of the great idea in a way that it really has an impact (Osburg, 2013:16). As genuinely known, many great ideas fail in their implementation face, for which the notion of chasm points at. As Osburg (2013) himself highlights, the difficulty of implementing the innovation can be particularly applicable for social entrepreneurs, as passionate and enthusiastic people who '*burn*' for solutions, but oftentimes fail in the next step which is the implementation of their innovative solution. It will be therefore interesting to see, whether, and what type of innovation adopt the social enterprises analysed in this thesis. To assess whether and what kind of innovation has the social enterprises adopted, a measure of Ruef (2002) is borrowed for the purposes of this thesis. The measure

is based on the entrepreneurs identifying the innovation themselves and will be used as an assisting guidance when inquiring the possible innovation adopted, or novelty changes which are planned to be implemented in a close future.

Elaborating on the Schumpeter's (1934) widely used approach to innovation, Ruef (2002) identifies nine categories, which slight modification is applied in the following thesis. The nine categories are: (i) introduction of a new type of product/service in a local or regional market niche, (ii) introduction of a new type of product/service in the national or international market niche, (iii) introduction of a new production method, (iv) introduction of a new distribution method (v) introduction of a new marketing method; (vi) development of new supplier linkages; (vii) attempted entry into an unexploited market niche; (viii) reorganization of the operation and/or production; and (ix) a residual category of innovations identified by the entrepreneurs themselves, labelled as 'other innovation'.

2.4. Social capital

2.4.1. Different perspectives on social capital

Delving deeper into the literature, one quickly realises the incredibly rich debate on the conceptualisation of social capital. Examined in different academic fields there exist a great variety of units analysed on this subject, implying different conceptualisation of the construct. The concept of social capital originated in sociology, describing assets which individuals or communities possess (Zheng, 2010:152). Since people are social creatures, embedded throughout their life course in various social situations and encountering different social relations, although the scholarly debate on social capital intensified only around 1980s (Chengke Yu and Du Junshu, 2013: 251), the notion which social capital represents is not a novelty but rather something which has always been here. Promptly gaining on popularity, the conceptualisation of social capital quickly expanded into other fields. For instance, to the political science, interpreting aspects such as the civic engagement or to the management literature, where the social capital is often used to explain the individual, group or organizational performance (Zheng, 2010:152).

Since the basic idea of social capital could be intuitively defined by a simple narrative as 'social connections', social capital represents an abstraction which is very hard to grasp or define universally. Accordingly, being not easily alienable from its unit of analysis, it is not surprising that social capital has been conceptualised and operationalized in myriad alternative ways (Andrews, 2010:585). Maybe it is precisely this 'wonderful flexibility' (Zheng, 2010:177) of social capital, which speaks for its extensive scope of application and so makes it particularly valuable analytical instrument for a specific purpose.

Chengke Yu and Du Junshu (2013) identify three broad perspectives on social capital: static; dynamic and mixed perspective, which encompass the different viewpoints and definitions of the pioneering scholars writing on the concept. The static perspective acknowledges the social capital as a network structure with its consecutive attributes such as density of the ties, centrality, networks configuration, structural holes, etc. (Chengke Yu and Du Junshu, 2013:252). Viewed from this perspective, social capital represents the social structure and relations within which it is embedded (Zheng, 2010:53). A classic example falling within this perspective is Burt (1997) with his earlier theory on structural holes. Based on Burt's viewpoint the structural hole theory gives a concrete meaning to the concept of social capital as a function of brokerage opportunities in a network (Burt, 1997:340).

Differently, the dynamic perspective focuses on the interactions between the actors within a network, representing the relationships between them and their character in terms of trust, norms, values, beliefs, emotional affiliation, etc. (Chengke Yu and Du Junshu, 2013:252). The argumentation is that it is not enough to consider just the network structure alone when theorizing on the social capital. Putnam's view (1996) falls within this perspective as he refers to social capital as '*the networks, norms and trust that enable participants to act together to effectively pursue shared objectives*' (Bride et al., 2009:182). Similarly, Coleman (1988) falls within this perspective as he argues that power of social capital comes through a closed, dense networks of personal relationships. (Moran, 2005:1131).

The contrary between these two perspectives lies in a question whether it is enough to focus on whom one knows, or if it is also important to consider how well one knows and taking into account aspects such as level of trust in their relationship, common norms, similar attitudes, etc. (Moran, 2005:1130).

The mixed perspective, also being the one applied in this thesis, combines the static and dynamic perspectives and so considers both the network structure as well as the interactions between the networks' actors. This perspective seems to be corresponding with the framework of Nahapiet and Ghoshal (1998) which this thesis is built on. Moreover, by considering both the more tangible as well as the intangible attributes of social capital, the mixed perspective is believed to provide the broadest conceptualisation, and so enables to identify the most accurate assets of social capital in the case study. Accordingly, for the purpose of this thesis a definition of social capital adopted by Nahapiet and Ghoshal (1998) will be used as '*the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit*'. In this way social capital is embedded in the network as well as in the interactions which the network triggers.

The fundamental proposition of the social capital theory as described by Nahapiet and Ghoshal (1998) is that the networks of relationships grant access to resources which cannot be reached by the non-members of the network. Such resources, whether being actual or virtual, which an individual or an

organisation assess by the virtue of the network can be highly beneficial, putting the members of the network in an advantageous position when compared to its non-members. Since the network facilitates interactions between its members, the actors of the network can utilize the social capital which the network presents to unlock or gain access to other resources. Seen in this way, social capital could be likened to a 'key' opening other resources, rather than being a resource itself (Anderson et al., 2007:264). Or as Nahapiet and Ghoshal (1998:244) put it: *'social capital makes possible the achievement of ends that would be impossible without it or that could be achieved only at extra cost'*. The importance of social capital can be highlighted particularly in connection to the third sector as *'it provides framework for integrating the third sector, putting it to work, providing strategic guidance and helping to clarify how the social economy needs to work in concert with both private and public markets'* (Bridge et al., 2009:188).

2.4.2. Assets of social capital

Although substantial differences persist about what exactly social capital comprises, a broad consensus in the scholarly debate can be noticed on social capital having valuable assets and constituting a broad range of benefits. Zheng (2010:152) summarizes the wide range of the beneficial effects which the debate highlights, as facilitating of the resources exchange, reducing of the transaction cost, minimizing redundancy, increasing efficiency, inducing information flow and knowledge sharing, developing of the intellectual capital, enhancing creativity, reinforcing innovation, and much more.

Social capital is increasingly recognized as essential for knowledge exchange and innovation (Jamali et al., 2011: 379). The salience of social capital has come to the fore especially with knowledge being increasingly recognised as embodied in networks, highlighting the importance of cooperation and quality of the relationships representing the cooperation (Jamali et al., 2011: 379), as well as with a tendency to perceive innovation not as a discrete event derived from isolated inventors but rather as a result of actors' interactions and exchanges of knowledge (Zheng, 2010:151). Linking knowledge and innovation, the general perception endures as innovation entailing a convergence of different knowledge (Landry et al. 2002 in Zheng, 2010:152), and so requires infiltration of new knowledge, with social capital being the means enabling this. Even Nahapiet and Ghoshal (1998) emphasise this, as they claim that social capital facilitates the development of intellectual capital, which they refer to as knowledge and knowing capability.

Thus, in this study, our further analysis of knowledge sharing, we propose that knowledge sharing is an antecedent variable of absorptive capacity and innovation capability (S. -h. Liao et al., 342)

Social capital is a quite recent but significant addition to the list of innovation-inducing factors (Zheng, 2010:154). For instance, several studies have suggested that social capital represent important

channels for organisations to access external knowledge and pertinent information which helps them to enhance their overall learning and innovation (Kittikunchotiwut, 2015:27). Pérez-Luño et al. (2011:1369) highlight the social capital framework as an interesting perspective from which to explain the effects of interorganizational relationships on innovation, Moran (2005:1129) encapsulates social capital as the firm's most enduring source of advantage and Ofori and Sackey (2010:78) outlines the social capital as particularly critical to knowledge sharing of a business.

Zheng (2010) conducted a work summarizing the empirical evidence of social capital's effects on innovation and based on the acquired evidence advocates a causal relationship between them. The existing innovation research indicates that good social capital leads to better innovation outcomes. Social capital could be thus legitimately regarded as the '*bedrock of innovation*' (Zheng, 2010:151), enabling the adoption of innovation to take place.

2.4.3. Organisation network as an ancestor formatting the social capital

As network organisations are increasingly regarded important for knowledge exchange and 'open innovation', they can be in a similar manner considered meaningful sources of social capital. An organisation network can serve as a useful resource base of social capital, enabling exploitation of its assets. In the following thesis, Verspilling is Verrukkelijk represent such organisation network and so an empirical context where social capital can be built. For this to happen, the network organisation needs to be properly functioning, in other words, governed in a way which enables the social capital to be generated. The governance literature analysing and discussing a proper governance and/or management of networks is immense. For the purposes of this thesis a simple but compact distinction of Provan and Kenis (2007) will be introduced, enabling a later characterization of the network organisation of the case study.

Provan and Kenis (2007) examined different forms of governances of organizational networks and their impacts on the network's effectiveness. They defined the term 'network' rather narrowly, focusing on '*groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal*' (Provan and Kenis, 2007:231). They distinguish between 'goal-directed' as opposed to 'serendipitous' networks. 'Serendipitous' networks develop opportunistically, while the 'goal-directed' networks are set up with a specific purpose, either by those who participate in the network or through a mandate (Provan and Kenis, 2007:231). Based on a literature review the authors developed three basic models characterizing the different forms of network governance: participant-governed networks, lead organization-governed networks, and network administrative organisation.

A participant-governed network is, as indicated by its name, governed entirely by the network's members, with no separate or unique governance entity. This form of governing depends exclusively on the involvement and commitment of (ideally) all members. It can be on one hand highly decentralized, with all the members interacting on relatively equal basis in the process of governance, which is referred to as shared participant governance. On the other hand, more centralized, when the network is governed by and through a lead organization, being one of the network's members.

In a lead organization-governed network, all major network-level activities and key decisions are coordinated through and by a single participating member, acting as a lead organization. The network is thereof centralized and brokered, with more asymmetrical power and feature of hierarchy as one actor is at the lead. The leading organisation genuinely provides administration for the network and facilitates its activities in the efforts to achieve the network's goals.

A network administrative organisation (the NAO) is form of network governing, when a separate administrative entity is set up specifically to govern the network and its activities. And so, NAO is established, either through a mandate or by the network's members themselves, exclusively for the purposes of the network governance. The network is highly brokered and externally coordinated by the NAO. The NAO may be modest in scale, consisting of a singular individual, referred to as a network facilitator, or it may be also a formal organization, inheriting its affiliated staff. (Provan and Kenis, 2007)

2.4.4. Dimensions of social capital and their effects

The diverse definitions on social capital result in various understanding about its dimensions, levels, characteristics and different forms (Chengke Yu and Du Junshu, 2013:252). For instance, social capital is being analysed on different levels, such as on the level of individuals (e.g. Burt, 1997) or organizations (e.g. Ofori and Sackey, 2010). The dimensions of social capital have been also given different ideas. A common distinction seems to be between bonding, bridging and linking social capital (e.g. Meerkerk et al., 2018, Bride et al., 2009). Chengke Yu and Du Junshu (2013) introduce two broader dimensions bases on the nature of social capital: the tangible and intangible dimension.

Following the Granovetter's (1992) discussion on structural and relational embeddedness, Nahapiet and Ghoshal's (1998) derive their structural and relation dimensions of social capital from Granovetter and add a third dimension of cognitive social capital (Nahapiet and Ghoshal, 1998:244). According to them the social capital therefore comprises three distinct dimensions: structural, relational and cognitive.

2.4.4.1. *Structural dimension of social capital*

Building on the notion of structural embeddedness, structural dimensions of social capital concerns the properties of the network as a whole. It described the impersonal configuration of linkages between the

networks' actors. As such the structural dimension refers to the overall pattern of connections between the actors, as '*who you reach and how you reach them*' (Nahapiet and Ghoshal, 1998:244). Zheng (2010:153) underpins that this dimension overlaps with the concept of the social network. Indeed, the genuine characteristics which can be applied to describe a structure of a network, such as the network configuration or density of its ties, represent also the facets of the structural dimension.

Structural dimension of social capital influences the knowledge exchange, and so the adoption of innovation, primarily through the ways in which its facets affect the access to the actors. As such, this dimension, embodied in the network's structure influences the development of relational and cognitive dimensions of social capital (Nahapiet and Ghoshal, 1998:252).

The main structural facets which Nahapiet and Ghoshal (1998) identify are the network ties, network configuration and appropriable organisation.

Network ties lie at the core of the social capital theory as they provide an access to resources. As '*who you know*' affects '*what you know*', network ties represent a valuable sources of information benefit. Network ties thereof serve as a means of '*access*' to actors as well as their information, as they provide channels for information transmission. Therefore, they influence the avenues for knowledge exchange also. Similarly, aspect of '*timing*' can be highlighted in this respect, since having a '*connection*' with someone may enable the information to be transmitted faster in comparison with actors without such '*connections*'. And since information is the '*power*' and time '*is money*', the ability of network ties to appoint such meaningful substances as prompt information should be highlighted. Another benefit which network ties provide is the one of referrals, as the processes which provide information on available opportunities for actors in a network, such as for knowledge exchanges. Moreover, referrals constitute a flow of information not only about the available opportunities, but frequently involve a reputational endorsement also. Thereby they influence both the anticipated value of knowledge exchange and combination of such exchange (Nahapiet and Ghoshal, 1998:252). Although, it could be disputable whether the reputation endorsement is not derived more from the facets of relational dimension on social capital.

Ego network size, which refers to the total number of contacts, resp. the total number of ties which an actor has, is generally viewed as having a positive influence on innovation (Zheng, 2010:155). Since it refers to the overall pattern of actor's connections, not just the direct ones from the network, but also '*friends of friends*', the larger the network size is, the more connections for an interaction. These connections can be accessed by different means, both physical such as face-to-face meetings as well as electronic such as in form of emails or online discussions (Kittikunchotiwut, 2015:29). Large ego network size provides actor with more sources for knowledge exchange and resource sharing. Simply said and as

the research shows, the more connections an organization has, the better its chances to innovate are. Although there exist suggestions of a tipping point, where the costs of expanding one's social ties begin to outgrow the benefits of it (Zheng, 2010:163).

Network configuration represent the overall configuration of the network ties. It is this facet of social capital in which Nahapiet and Ghoshal (1998) indicate the properties of the network structure, such as density, connectivity and hierarchy. These properties are associated with flexibility and ease of information exchange through their impact on the level of contact or the accessibility they provide to the network members (Nahapiet and Ghoshal, 1998:252).

Scholars disagree on what constitutes an 'ideal network structure'. The debate generally concerns whether a closed, dense network structure of more 'strong ties' is better than a sparse structure, characterized by structural holes and non-redundant ties (Moran, 2005:1131). Zheng (2010) points out to the inconsistency of the empirical findings on what kind of network structure is the best for innovation. The non-redundant contacts are often labelled as 'loose' or 'weak' ties. The distinction between strong and weak ties as introduced by Granovetter (1973), describes strong ties as formed by relations which are intensive, frequent and possess information resources similar to the ones which an actor already has. Strong ties are therefore associated with a dense network structure. Weak ties on another hand, are formed by relations with which an actor is more 'loosely' connected to and offer advantages of providing access to heterogenous sources of knowledge and information (Gilsing and Duysters, 2008:695).

The benefits of structural holes and non-redundant weak ties can be seen in greater possibilities to 'search for' and exploit the chances to innovate, while the density of a network can be helpful precisely to promote cooperation and constrain exploitative behaviour which pursue innovation. As such, sparse networks may be beneficial for innovation 'seeking', but dense networks may be convenient in the following step of innovation adoption. The network organisation analysed in this thesis is assumed to represent a dense network of more redundant ties between its members, possibly possessing more homogeneous knowledge as all of them deal with food waste.

Nonetheless the different views on the 'ideal' network structure, the general point remains that the configuration of network is important for the accessibility of information resources and new knowledge. It constitutes a valuable resource as a channel for knowledge diffusion and transfer and thus represents a facet of social capital which influences the range of knowledge that may be assessed and combined (Nahapiet and Ghoshal, 1998:253).

The facet of **appropriable organization** indicates that an organisation (or a network) created for one purpose may turn out to be source of valuable resources also for different purposes (Nohria, 1992;

Putnam, 1993, 1995 in Nahapiet and Ghoshal 1998:253). Social capital may be therefore transferred from one social setting to another one. For instance, personal social capital of an entrepreneur can be transferred into the network of more entrepreneurs, and potentially be of used by them. This could be labelled as aggregation of individual's social capital into the one of the network organisation (Nahapiet and Ghoshal, 1998:253). Another case could be a transfer of the social capital by an individual from an organisation to another organisation, and in such way considered as bridging different structural holes. Thereof also the label of 'appropriable' organisation, as a quality of being reproducible, imitable. And so, a network organisation created for one purpose may also provide resources valuable for different purposes, other than the network organisation was originally created for.

2.4.4.2. Relational dimension of social capital

Building on the notion of embeddedness, relational dimension concerns the personal relationships of actors in the network. Relational social capital represents trust, obligations, norms and identification between the actors, showing the 'real character' of the connections. This dimension of social capital is created and leveraged through personal relationships, referring to the 'actor bonds'. Knowledge sharing is more likely to happen when members of a network know each other well, have more personal relationships between them. The same could be said about the exchange of resources, as a more positive ties between the actors can motivate them to make greater recourses commitments (Capaldo, 2007 in Kittikunchotiwut, 2015: 30).

Trust could be defined as a stable positive expectation of an actor, that another actor will refrain from an opportunistic behaviour even if the opportunity arises. (Klijn et al., 2010:195). As such the actor expects that another actor will take his interest into account. Trusting another actor therefore means that one is willing to undertake an open and vulnerable position. In situation when parties are in competing position against one another, to embrace trust between the actors can be significantly hard, if not even impossible.

Although trust is multifaceted construct, which acquires many forms, the focus in the following thesis is placed on a relational or interpersonal trust. Such trust is constructed through personal interactions and experiences with other actors, being particularly suitable for the relational dimension of social capital (Moran, 2005:1136). Trust has been highlighted as crucial facet, enabling cooperation to happen. As Popp et. al (2013:17) highlights, '*trust is a lubricant that makes cooperation between actors possible*'. It plays a prominently positive role in the context of innovation, mainly because innovation comes with uncertainty and ambiguity and entails risk taking and vulnerability. Trust is especially important when actors are dealing with unpredictable and risky situations (Klijn et al., 2010:196), and so may be particularly beneficial in innovation as trusting relationships among actors can help to induce joint efforts

(Zheng, 2010:170). High level of trust stimulates actor's engagement in an exchange in general. When actors trust each other, they are more willing to engage in cooperative activities, through which more trust may be generated (Nahapiet and Ghoshal, 1998:250). Trust is therefore an important facet for knowledge sharing. It is an important precondition for actors to open up and possibly share their knowledge, experience, information, etc. It is similarly believed to lead to lower transaction costs, enable successful negotiations, dispute settlement, open communication and much more (Zheng, 2010:170).

Norms can be defined as knowledge sharing that is mutual and perceived by the parties in the same way (Chiu et al., 2006 in Kittikunchotiwut, 2015:29). This mutual and shared knowledge of actors in a network can significantly stimulate the exchange processes. It can facilitate the opening up of an actor since norms function as motivation to engage in an exchange with others. Norms represent a degree of consensus as something which is fair and beneficial at the same time. They can be described as '*expectations that bind*' (Kramer & Goldman, 1995 in Nahapiet and Ghoshal, 1998:255) or '*implicit rules of behaviour*' (Russell and Russell 1992 in Zheng, 2010:171). In uncertain situations such as innovation, norms may become primary sources of guidance. They may help to anticipate actors how others may react to their behaviour and so help them to adjust their behaviour based on this anticipation. Consequently, norms can reduce the undesirable behaviour and increase the desirable one (Zheng, 2010:171).

Obligations and expectations speak for a commitment of a duty to undertake certain activity in the future (Nahapiet and Ghoshal, 1998:255). Coleman (1990) suggest that obligations operate as a 'credit slip' held by an actor to be redeemed by a performance of another actor (Nahapiet and Ghoshal, 1998). Putting forward the notion of 'no such thing as a free lunch', Nahapiet and Ghoshal (1998) depict the commonly held view in which exchange breeds expectations about future obligations. This can consequently influence the motivation and access of actors for an exchange with others.

Identification, as a process when actors see themselves as one (Nahapiet and Ghoshal, 1998:256) is a meaningful facet, playing a significant role in shaping the relations and deciding their future direction to be more personal or impersonal. The way in which actors perceive themselves as associated with other actors, or the network as a whole, can significantly influence the perceived benefits of actor's exchange with others. In situations when actors find themselves having distinct or even contradictory identities, the likelihood of barriers and lack of motivation to information and knowledge sharing is higher.

2.4.4.3. *Cognitive dimension of social capital*

The cognitive dimension of social capital refers to the shared representation, interpretation and system of meaning among the network's members, presenting resources providing shared narratives, codes and language (Nahapiet. and Ghoshal, 1998). Some scholars, such as Zheng (2010:176) propose this dimension to be constituent of the relational dimension. Even Nahapiet and Ghoshal (1998) themselves point out that the cognitive dimension is being the weakest one discussed. Nevertheless, they have identified the cognitive dimension as a separate cluster because they believe that it represents an important set of facets. The facets of the cognitive social capital identified by Nahapiet and Ghoshal (1998) are the shared language and codes, and shared narrative.

Regarding the **language and codes**, Nahapiet and Ghoshal (1998) highlight the direct and very important function which language has in social relations. Being the means thanks to which people can communicate, and thereof also discuss, share information, conduct business, etc., a case when the language and codes among the network's actors are different, can significantly restrict the exchange within the network. As such, it also restricts the functioning of the network and meeting of its goals. Differently, a case in which actors share a common language and codes enables them to come closer to each other, strengthens their ties and facilitates their exchange and access to the other actor's resources. This facet of common language could be broadened into a larger view and encompass aspects of shared nationality, same culture, religion, etc.

Shared narratives, such as in forms of metaphors, myths or stories are similarly regarded as a relevant facet. Shared narratives can form a powerful means in which actors create, exchange and preserve common sets of meanings (Nahapiet and Ghoshal 1998:254). It could be comparable with a shared vision, which authors imply in innovation studies (Zheng, 2010:172). Andrews (2010:587) highlight that the diffusion of knowledge for innovation often requires a shared context to frame the potential contributions. Shared vision, which refers to a common mental model of the future state (Pearce and Ensley 2004 in Zheng, 2010:173), could serve as such frame. Shared narrative among network's actors can essentially strengthen their will to achieve the overall goal of the network as it enables them to share a common understanding towards that goal. Moreover, it can increase the ambition of the network members to cooperate towards that goal as well as the external representation of such network, ultimately making it more than just a collection of actors (Ofori and Sackey, 2010:75)

Despite the distinction of the dimensions and their facets, Nahapiet and Ghoshal (1998) recognise that they are likely to be interrelated, influencing and reinforcing one another in complex ways. Although each dimension of the social capital is considered independently and valuable in itself, when combined together they endure broadest volume of assets. Zheng (2010) in his extensive work, provides

considerable support for the structural and relational dimensions' positive influence on innovation. He argues that the cognitive dimension of social capital, when compared with the other two dimensions, does not show a sufficient contribution to innovation. This could be however explaining by the scarcity of research on the linkages between the cognitive dimension and innovation. Jamali et al. (2011:388) show in their research that the organizations which recognise the value of their social relations, resp. social capital, and successfully leverage their structural, relational and cognitive dimensions, are the ones who realize the most innovative outcomes. As such, it can be expected that the social enterprises which recognise and utilize all three dimensions of the social capital are the ones who can benefit the most from the network organisation and possibly have the largest volume of adopted innovations since joining the network.

A figure which summarizes the dimensions of social capital with their respective facets as identified by Nahapiet and Ghoshal (1998) can be found in appendix (figure 8).

2.5. Knowledge absorptive capacity

2.5.1 Introducing the absorptive capacity

Jamali et al. (2011) show in their research how social capital can lead to innovation, even if the innovation had not been the primary aim of the analysed partnerships. They highlight an interesting conclusion arriving from their findings, as the differences in the innovation performance of their cases are attributed to the ability of creating and exploiting the social capital. Accordingly, this indicates that even if the social capital is present, together with a new knowledge resources critical for the adoption of innovation, their utilization is highly depended on one's capabilities to use the opportunities given. Such capabilities represent the absorptive capacity.

Similarly to the social capital, absorptive capacity represents a frequently applied concept across different academic fields, used by scholars to explain various phenomena on different levels of analysis. The intangible nature of absorptive capacity seems to add to it sufficient flexibility in its applicability, as well as in its conceptualisation.

Sometimes considered as 'learning ability', the argument lies that learning ability of an organisation depends on its knowledge base, the organisational structure and the dominant logic between the organisations (Spithoven at. al, 2019:132). Spithoven at. al (2019) build on the argument with an idea that prior knowledge in an organisation must meet two criteria to be able to identify and value new external knowledge: the organisation knowledge base between the receiving and transferring organisations needs to be similar, while having a partial diversity for an organisation to be able to use

the new transferred knowledge. These two criteria are expected to be applicable for the participating enterprises in the analysed network organisation of this case study.

Cohen and Levinthal (1990:128) argue that the ability to evaluate and utilize the external knowledge is largely a function of the existing knowledge, which confers an ability to recognise the value of new information, assimilate it, and apply it to commercial ends. These abilities collectively constitute the absorptive capacity. According to them, the absorptive capacity therefore represents the ability to learn from the external knowledge through processes of knowledge identification, assimilation and application. It is genuinely believed that Cohen and Levinthal (1990) were the original founders of the scope and nature of the absorptive capacity, creating a widely applied and lasting definition for the concept (Kittikunchotiwut, 2018:14). Although there exist several scholars which modify Cohen and Levinthal's definition of the absorptive capacity (Camisón and Forés, 2010:708), the most far-reaching and frequently applied reconceptualization is the one of Zahra and George (2002).

Zahra and George (2002) made a review of the various works on absorptive capacity existing by the time of their research and identified four key dimensions and so reformulated the Cohen and Levinthal's (1990) original three-dimensional model with an additional fourth dimension. They reconceptualize the absorptive capacity as *'a dynamic capability pertaining to knowledge creation and utilization that enhances firm's ability to gain and sustain competitive advantage'* (Zahra and George, 2002:185). The absorptive capacity in their acknowledgement is a dynamic set of capabilities by which organisations acquire, assimilate, transform and exploit knowledge, demonstrating the four dimensions identified. These capabilities are embedded in the organizational processes and are directed towards organizational change and evolution (Zahra and George, 2002:185), and so are crucial for an adoption of innovation. Zahra and George (2002) suggest that the absorptive capacity exist as two subsets of potential and realized absorptive capacities, potential capacity comprising of knowledge acquisition and assimilation while the realized capacity comprising of knowledge transformation and exploitation.

Minbaeva et al. (2014) suggest that absorptive capacity has two elements and identify them as the prior knowledge (employees' ability) and intensity of efforts (employees' motivation). As they themselves suggest, the two elements are related to the concepts of potential and realized absorptive capacity, proposing that the potential absorptive capacity is expected to have a high content of employees' ability, while realized is expected to involved high content of motivation (Minbaeva et al., 2014:41).

The following thesis applies the Zahra George (2002) dimensions and views the absorptive capacity as the ability and the level of efforts (motivation) to obtain external knowledge and capacity to transform and exploit the knowledge to innovation. As highlighted by Spithoven et al. (2010), the organisation's absorptive capacity depends on the individual who stand at the crossroad of the organisational external

development. In the following case study, these individuals are entrepreneurs responsible for the social enterprises.

2.5.2. The dimensions of absorptive capacity

Acquisition refers to the organisation's ability to locate, identify, value and acquire the external knowledge critical to its operation (Camisón and Forés, 2010:709). The ability to attain the external knowledge by an organization can be influenced by means of intensity, speed and direction of the organization's efforts. The intensity and speed of the organisation's efforts to identify and gather new knowledge can determine the quality of its acquisition capabilities. In connection to the organization's efforts, overall motivation to innovate could be considered as a part of this dimension.

Assimilation refers to organisation's capacity to absorb the external knowledge. Zahra and George (2002) interpret this dimension as processes and routines that allow organisation to analyse, process, interpret, and understand the information obtained from the external sources. Oftentimes an externally acquired knowledge may exhibit heuristics that significantly differ from those of an organisation. This may in turn hinder the comprehension of the acquired knowledge, making its assimilation particularly challenging. Although the external knowledge may be highly useful for the organisation, the nonconformity of the knowledge with the organisation's comprehension capabilities, render its possibilities to absorb the knowledge. As such, the abilities to interpret and understand the external knowledge by organisation's members play an essential role (Campos-Climent and Sanchis-Palacio, 2017:1166), facilitating the knowledge assimilation.

Transformation refers to the organization's capacity to develop and redefine the internal organizational routines, facilitating the transference and combination of the existing internal knowledge and the newly acquired and assimilated external knowledge. Transformation may be achieved by adding to or eliminating of the existing knowledge, or by interpreting and combining the existing knowledge in a different, innovative way (Camisón and Forés, 2010:709). Transformation therefore changes the character of the existing organization's knowledge. Zahra and George (2002:190) highlight an ability to recognize two apparently incongruous sets of information and combine them in a way which arrives at a new schema, as a part of the transformation capacity, making this capacity essential for organizational innovation.

Exploitation, which is in Cohen and Levinthal's (1990) definition emphasized as application, refers to the organisation's capacity to harvest the external knowledge and to refine, extend, and leverage the existing competencies by incorporating the acquired, assimilated and transformed knowledge into its operations. However, exploitation is not only to redefine, perfect, expand and leverage the existing knowledge and operations, but also a creation of new competencies, operations, capabilities,

organizational forms, etc. (Camisón and Forés., 2010:709). As such, exploitation may lead to a novelty for an organization. Zahra and George (2002:190) put emphasis on the organization's routines which allow it to exploit the knowledge. Although organization may be able to exploit knowledge serendipitously without systemic routines, the presence of such routines provides for systemic and procedural mechanisms which allow organizations to sustain the exploitation of knowledge over time, allowing a steady creation of novelty to happen.

In Zahra and George's (2002:190) view these dimensions build on each other, making the absorptive capacity a coherent dynamic capability which fosters organizational change and evolution. Being divided into the potential (PACAP) and realized (RACAP) absorptive capacity, which play different but complementary roles, it is the RACAP which is responsible for organization's ability to innovate. However, the innovation would not be possible without the PACAP, as an organization cannot possibly exploit new knowledge without first acquiring it. Although an organization may be able to identify and acquire external knowledge (PACAP), it might not have the capacity to transform and exploit this knowledge (RACAP). Thereof a high PACAP does not necessarily enhances the organization's advancement or innovation. Accordingly, it may commonly happen that an organisation possesses an understanding of a complex problem but is not able to translate such understanding into an innovation. In other words, the organisation is not able to leverage its PACAP to RACAP. On the other hand, although RACAP is the primary source of innovation, as Camisón and Forés (2010:710) highlight, the importance of PACAP shall not be underestimated, as a sustained innovation requires continuous renewal of external knowledge and its assimilation into the organization's base.

As such, organizations, which in the following thesis represent the social enterprises, may vary in their account to leverage PACAP as well as RACAP. Some may possess the PACAP, but lack the RACAP, influencing their ability to adopt an innovation.

Summing up, the distinction between PACAP and RACAP may help to explain why some enterprises may have adopted an innovation while the others may have not.

2.5.3 Knowledge absorptive capacity and the adoption of innovation

Cohen and Levinthal (1990) argue that the absorptive capacity is vital to organisations innovation. Their claim is supported by different research findings (e.g. Kittikunchotiwut 2015 & 2018, S.-h. Liao et al. 2007, Y.-S. Chen et al. 2009), showing that the absorptive capacity has a positive impact on organization's innovation. For instance, study of S.-h. Liao et al. (2007) highlights that absorptive capacity has a significant positive impact on the innovation capability of sampled 170 Taiwanese firms. They suggest the absorptive capacity to be a mediating variable and so 'a bridge between' the knowledge sharing and the innovation capability, emphasizing that the knowledge sharing does not

have a direct positive effect on innovation capabilities as expected. Study of Y.-S. Chen et al (2009) emphasises that the absorptive capacity is positively associated with companies' innovation performance and further has positive effects on their competitive advantage. Nahapiet and Ghoshal (1998:250) similarly refer to the absorptive capacity as an important factor for an organizational innovation. Absorptive capacity thereof seems to be a foundation crucial for finding of the new knowledge and utilization of this knowledge for subsequent innovation (Kittikunchotiwut, 2018:16).

As the external knowledge plays a key role for innovation, the absorptive capacity plays a crucial role to utilize this knowledge and transform it into an innovation adoption. Camisón and Forés (2010:707) claim that the absorptive capacity has become one of the most significant academic constructs precisely because the external knowledge resources are so important. Building on the importance which knowledge plays in these processes, the following thesis will apply the denomination of knowledge absorptive capacity. The knowledge absorptive capacity will speak for the ability of social enterprises to acquire and assimilate new external knowledge from the network organisation and their subsequent capacity to transform and exploit the external knowledge into the already existing knowledge which the enterprises possess.

As the general assumption is that the greater knowledge absorptive capacity enables better utilization of knowledge from external networks and as a result promotes superior innovative outcomes (Kittikunchotiwut, 2015:31), social enterprises with greater knowledge absorptive capacity will be expected to have a higher frequency of adopted innovation.

Moreover, as innovation is oftentimes taking of an 'old' information in a form of external knowledge and transforming it into a knowledge new for an organisation, the existing knowledge base of an organization increases, together with its abilities to search for, assimilate, transform and exploit more new knowledge. The quest for information becomes larger if an organisation has a better ability to use its absorptive capacity (Kittikunchotiwut, 2015:16). As such, the enterprises which have utilized the knowledge from the network organisation and transmitted it into an innovation, may be expected to do so more than once as they increase their 'desire' to innovate.

2.6. Conceptual model

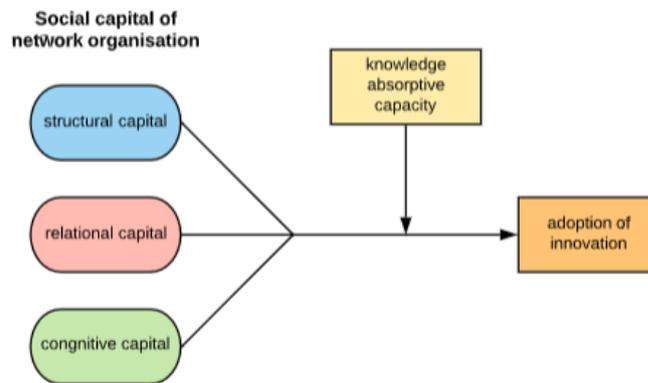


Figure 1: Conceptual model

2.6.1. Explanation of the conceptual model

The conceptual model indicates three dimensions of social capital: structural, relational and cognitive as constituting the network organization. The different dimensions of social capital present diverse assets, offering different resources and knowledge. Organizations, in this case social enterprises, vary. They might be exploiting different assets of social capital, and so some assets may be more 'relevant' for an enterprise, while other assets for another. As such, an enterprise may find a dimension of social capital as the 'most relevant' while another enterprise another dimension.

The model proposes influence of social capital on the adoption of innovation. The social capital of the network organisation may influence the enterprises' adoption of innovation, but such realization is dependent on the enterprise's knowledge absorptive capacity. The knowledge absorptive capacity determines the enterprise's ability to utilize the assets of the social capital which network organisation offers, as well as its abilities to transmit them into innovation. Therefore, although being part of the same network organisation, the social capital which the enterprises are offered, and can apply the knowledge and resources obtained from it for an innovation adoption, depends on their knowledge absorptive capacities. As such, the potential resources and knowledge coming from the social capital are moderated by the enterprises' knowledge absorptive capacities. Playing a moderating role, the knowledge absorptive capacity influences the enterprises' gains from the social capital of the network organisation.

3. Methodology & Operationalization

3.1. Operationalization

3.1.1. Social capital

Table 1: Operationalization social capital

Variable	Dimension	Indicator	Indicator explained	Question
Social capital	Structural	Network ties	increase in connections	<i>Has the platform Verspilling is Verrukelijk increased the number of your 'connections'? Either direct connections, meaning the other entrepreneurs and members of the Verspilling is Verrukelijk, or indirect ('friends of a friends type'). Generally, were these connections useful for you?</i>
		Network configuration	perception of appropriate network structure	<i>What would you say about the structure of the network? Is it adequate for the overall purposes?-- (e.g. is it transparent enough? (such as for network's non-member but still involved with food waste); is it flexible enough (such as for the information to flow, new members to join, etc.))</i>
			perception of network structure stimulating cooperation and learning	<i>Has the network's structure stimulated cooperation between you and other members? Has it provided you with opportunities for learning, exchanging of the knowledge with other enterprises?</i>
		Appropriable organisation	network used for other purposes	<i>Verspilling is Verrukelijk has been created to support and enable growth of the Dutch entrepreneurs tackling food waste, establishing a joint alliance of them. Can you maybe think of a situation when this platform has been used (by you or another enterprise) for other purposes?</i>
			aggregation of individual's social capital	<i>Have you ever 'brought in' your personal connections to the network? (e.g. they might have been beneficial for another member) Have any other member done so?</i>
	Relational	Trust	trust in the other members	<i>Do you feel like the other members of the platform take your interest into account? Genuinely, did you have trust in the other members of the platform?</i>
		Norms	existence of shared norms	<i>Can you identify any norms which you share with other Verspilling is Verrukelijk' members?</i>
		Obligations and expectations	expectations	<i>(hypothetical) In a case you share something with the other members do you expect them to share them in the same way with you?</i>
			obligations	<i>Have you ever felt like you 'owe' something to another member?</i>
	Identification	identification with the network	<i>Do you identify yourself with Verspilling is Verrukelijk platform/other members?</i>	
	Cognitive	Shared language and codes	importance of Dutch language and Dutch origin	<i>Does the Dutch language, which you share with the other members, play any role in your willingness to communicate and share information with them? - Do you see any importance in the fact that you are all Dutch enterprises and in the Dutch language?</i>
			existence of shared codes	<i>Can you identify any shared 'codes' which you have with the other members of the Verspilling is Verrukelijk?</i>
		Shared narrative	motivational character of the shared vision to join the network at the first place and collaborate with others	<i>Does the shared narrative of food waste and the shared vision of tackling the food waste together motivate you to collaborate with other members/ motivated you to join the platform at the first place?</i>
			motivational character of the shared vision to deal with food waste	<i>Has the shared narrative and altogether the platform itself strengthened your motivation to deal with food waste?</i>

3.1.2 Knowledge absorptive capacity

Table 2: Operationalization knowledge absorptive capacity

Variable	Dimension	Indicator	Indicator explained	Question
Knowledge absorptive capacity	Potential absorptive capacity	Acquisition	ability to identify knowledge resources in the network	<i>Have you ever been able to identify information and/or knowledge resources valuable for your enterprise from the platform?</i>
			overall motivation in learning and gaining knowledge	<i>Generally, are you motivated in learning and gaining more information and/or knowledge to advance the your enterprise?</i>
		Assimilation	ability to understand the information/knowledge coming from the network	<i>Have you been able to understand the information and/or knowledge which the platform and/or its members offer? Was there any case when such information was too specific (e.g. context-specific like a scientific information) making it hard for you to understand it?</i>
	Realized absorptive capacity	Transformation	ability to combine the internal knowledge with the external knowledge coming from the network	<i>Have you been able to combine the information and/or knowledge from network and/or other network's member with the information and/or knowledge which your enterprise already possess?</i>
			situation of reconsidering based on the external knowledge coming from the platform	<i>Have you ever found yourself in a situation when you felt like you should reconsider your information and/or knowledge because of the information and/or knowledge shared within the network?</i>
		Exploitation	situation of adjustment based on the external knowledge coming from the platform	<i>Have you ever adjusted your enterprise (e.g. its operation, your products, etc.) based on the information and/or knowledge shared within the network?</i>
			connecting network to innovation	<i>Has the network reinforced innovation of your enterprise? If yes, what role has it played?</i>

3.1.3. Adoption of innovation

Table 3: Operationalization adoption of innovation

Variable	Indicator	Indicator explained	Question
Innovation adoption	new type of product/service in a local or regional market niche	adoption of new product/service in a local or regional market	<i>Have you in the recent year (/are you planning to in the close future) introduced a new type of product/service in a local or regional market niche?</i>
	new type of product/service in a national or international market niche	adoption new type of product/service in the national (Dutch) or international market	<i>Have you in the recent year (/are you planning to in the close future) introduced a new type of product/service in the national or international market niche?</i>
	new production method	implementation of a new production method	<i>Have you in the recent year (/are you planning to in the close future) introduced a new production method?</i>
	new distribution method	implementation of new distribution method	<i>Have you in the recent year (/are you planning to in the close future) introduced a new distribution method?</i>
	new marketing method	introduction of a new marketing method	<i>Have you in the recent year (/are you planning to in the close future) introduced a new marketing method?</i>
	new supplier linkages	development of new supplier linkages	<i>Have you in the recent year (/are you planning to in the close future) developed new supplier linkages?</i>
	unexploited market niche	entry of an unexploited market niche	<i>Have you in the recent year (/are you planning to in the close future) attempted to entry an unexploited market niche?</i>
	reorganization of the enterprise	reorganization of the enterprise, such as its production or operation	<i>Have you in the recent year (/are you planning to in the close future) reorganized the enterprises' operation and/or production?</i>
	other	other innovation adoption identified by the entrepreneurs	<i>Have you in the recent year (/are you planning to in the close future) adopted any other innovation?</i>

3.2. Methodology

3.2.1 Research strategy

The empirical component of this thesis entails primary instrumental purposes, demonstrating a nested case study with subcases examining the applicability of the conceptual model and relationships between the concepts at stake. The research can be categorized as exploratory as tied to the form of the research question constructed (Yin, 2003:5) and to the purpose of the thesis ultimately seeking an understanding and an explanation (Thomas, 2011:516).

As it is generally with case studies, they are based on an intensive and detailed examination of an example within a real-life context (Ford et al., 2010: 377). The same applies for the following case study, examining the social enterprises of the Verspillings is Verrukkelijk. Verspillings is Verrukkelijk represents a network organisation which officially consist of 18 social enterprises with aim to tackle food waste. The participating social enterprises are unique, each having its own way of dealing with the wasted food. Still, all of them tackle food waste with a same ambition which is to offer a solution to this sincere problem. A table listing the social enterprises can be found in the appendix (table 9.).

Following a typology for case study in social sciences introduced by Thomas (2011), a case study must comprise of a **subject**, being the *explanandum* and an **object**, being the *explanans*. Wallace (1996) adds to this and classifies the *explanandum* as the dependent variables and *explanans* as the independent variables (Thomas, 2011:513). The **subject** of this case study represents the social enterprises dealing with food waste and their adoption of innovation. The **object**, being the analytical or theoretical frame, presents the influence of the network organisation in a form of social capital. As for any study to constitute a research there must be something explained, indicating the object, as well as something potentially offering an explanation, which is the analyses of the circumstances of the subject. In the following thesis these circumstances are demonstrated in the knowledge absorptive capacity.

The research can be classified as a nested case study, as it generates four subcases in one case study. A nested case study endures a comparison of elements in one case. In this thesis the elements are the individual social enterprises, all being nested, as they are all members of the same organisation network, the Verspillings is Verrukkelijk. As such, the participation in the same network as well as the action of dealing with food waste which they have in common, give the subcases a shared essential, implying the integrity of the nested study. The sampling of the subcases thereof entailed a purposive sampling, as the focus has been places on enterprises which participate in Verspillings is Verrukkelijk. Since the subcases exist and will be studied concurrently, the study can be classified as parallel.

3.2.2 Methods

The overall approach of this thesis is qualitative, and the objectives are instrumental and exploratory, completed through a triangulation of methods gathering the data, including desk research of a secondary data and in-depth interviews of open questions. Qualitative technique has been regarded as particularly appropriate for the focus of this study as it enables to capture the rich details of the individual subcases, which would not have been possible through other techniques.

The desk research represents to a large extent online searching, examining the profiles and websites of the participating enterprises. The in-depth interviews were conducted with participating enterprises as well as with a representative *MVO Nederland* project employee who supported the creation of *Verspillings is Verrukkelijk*. The latter interview aimed at exploring the *Verspillings is Verrukkelijk* as a network organisation and questions aspired to discover the intentions behind its creation; its operationalization; the level of openness for new members; membership rules; etc. The interview had a more loose character, enabling follow-up questions to take place. The interviewee was also asked to suggest network's enterprises regarded as most suitable examples for the subcases in consideration of the research aims.

These suggestions were taken into account when initially deciding on which enterprises to contact. To reach the enterprises was unfortunately a rather challenging task. From the initial 8 contacted enterprises based on the MVO suggestions and individual desk research of the secondary data, only one was willing to participate in the research and was open for an interview. Following the second and the third round of contacting the enterprises completed four entrepreneurs willing to participate, presenting the four subcases of this study (appendix, table 10). Although naturally possessing some resemblances, the particular subcases were chosen due to their diversity when broadly comparing all the enterprises in the network organisation. The emphasis was placed in choosing subcases based on their unique objectives and ways of dealing with food waste, as well as perception of what everything exemplifies food waste. Similarly, the aim was to include enterprises which have joined the network organisation at different times, and so potentially were not familiar with the other network members before. Moreover, two of the selected subcases turned out to be no longer participating in the network organisation, which was considered interesting for the aims of this study. Serving as 'contrary examples', the reasons leading to the departure of the no longer participating enterprises were thought to be possibly explained with the concepts underlying this research. As such, a balance between two active subcases and two no longer active subcases in the network organisation was established, serving as a good base for the comparative character of the nested case study.

After the background research and agreeing on cooperation, an email conversation was established with the individual entrepreneurs. This enabled to ask introductory questions about the enterprises and so supplement the background research and profiling of the subcases. In one subcase an interview was conducted at the place of the enterprise, supplementing the initial email conversation described. This short interview took place after a visit and presentation of the enterprise's location and was conducted with an employee directly responsible for the enterprise's operation.

After the initial email conversation, and in one case an actual visit to the enterprise's location, a date and time with the entrepreneurs for a phone interviews were agreed on. The interviews were recorded, enabling the transcription of the answers and ranged in time between 30-60 minutes. The interview character was semi-structures with open questions, following a pre-determined interview-guide, which can be found in the appendix. The questions were constructed in a way to enable coding of the answers afterwards. The interview-guide was followed, but at the same time, many follow-up questions have been asked, inquiring a more detailed answers such as asking for examples or elaboration on the entrepreneur's answers. The character of the interviews was therefore in all cases adapted to the type of answers and talkativeness of the entrepreneurs.

A follow-up interviews with the entrepreneurs, as well as with the representative MVO project employee, were conducted after transcribing, reviewing and coding of the data. The follow-up interviews enabled missed information to be filled in, and several confusions to be resolved. The entrepreneurs were also re-examining the preliminary research findings affiliated with their particular subcase.

3.2.3. Reviewing and coding of the data

After the interview transcription, the answers and information gathered for each subcase were allocated to excel tables. For illustrative and comparison purposes, mainly to support the textual descriptions of the analysis, a simple coding scheme was established. The coding scheme was established based on example of 'Likert type' scale.

Each answer of the entrepreneurs was assigned a value, ranging from 2 to -2, presenting a 'scale of relevance' of the questions asked for the individual enterprises. By the 'relevance', it is meant whether the entrepreneurs were able to connect their experience in the Verspillings is Verrukkelijk with the indicative question asked and if their viewpoint on the inquiry was more positive (highly relevant or fairly relevant) or negative (nonrelevant or highly irrelevant).

Explanation of the simple logic behind the coding and guidelines based on which the values of the relevance were assigned can be found in the table 4.

Table 4: Summary of the coding procedure

<i>Relevance</i>	<i>Explanation</i>	<i>Value</i>
Highly relevant	a firm connection of the indicator for the enterprise, being able to offer a particular example/explanation	2
Fairly relevant	a connection of the indicator to the enterprise, answering 'yes' but not being able to provide an example/explanation	1
Undecisive	answers like 'maybe', 'probably yes', 'I don't know', or not answering the question at all	0
Nonrelevant	a disconnection of the indicator from the enterprise, answering 'no' but not being able to provide an example/ explanation	-1
Highly irrelevant	a strong disconnection of the indicator from the enterprise, being able to provide an example/ explanation	-2

It shall be noted that in several cases 'highly relevant' or 'highly irrelevant' was assigned for an answer although this particular answer did not provide a detailed explanation or an example. This was simply because such explanation/an example was already provided in previous answers or was clear from the context and therefore did not need a further elaboration. Also, the relevance has not been assigned to all interview answers. This was applied for example to the 'neutral' questions, not aimed to investigate the relevance of a variable/dimension or indicator for the enterprise.

As described, the coding scheme was established primarily for two purposes: illustrative and enabling comparison. The illustrative purpose aimed to supplement the analysis of the findings for the social capital and knowledge absorptive capacity, providing the reader with illustrative graphs. These graphs show the total value and so in a way a 'score' for each dimension of the social capital and the knowledge absorptive capacity, as well as a range of the total possible value (maximum and minimum) depending on the number of questions asked. Such visualisation can provide a better, more compact, picture of the affiliation of inquired aspects with the examined enterprises. And secondly, for comparison purposes, the assigning of the values enabled visualisation of similarities and differences among the subcases in regard to the exploitation of the dimensions of social capital and the knowledge absorptive capacities. Naturally, the non-coded answers were not incorporated into the graphs.

3.2.4. Quality indicators

3.2.4.1 Reliability

Several actions were undertaken to proof the reliability of the research and enable future researchers to reproduce it. In particular, a detailed methodology with a precise description of all the research steps taken and methods applied can facilitate such reproduction. Moreover, the findings were coded in a comprehensive, systematic way and precisely documented. The interview guides and list of participating enterprises in the research are demonstrated in the appendix and the interview transcriptions will be provided on request.

3.2.4..2. Internal validity

The internal validity of the research can be supported with the application of theoretical conceptualizations and frameworks, such as the one of Zahra and George (2002) on the absorptive capacity, or Nahapiet and Ghoshal (1998) on the social capital, being widely used and validated as relevant frameworks for a social research.

The concepts applied in this thesis are highly subjective in nature. Thereof, they similarly lead to a broad array of possible interview answers and findings. To ensure the internal validity, concepts were operationalized into concrete dimensions with direct indicators. Moreover, in order to provide credibility and trustworthiness of the study, different validity strategies were enforced. Triangulation of the data sources was used to build a coherent justification for the themes (Creswell and Creswell, 2018:200). Such as, converging of the different subcases and perspectives of the individual social enterprises with the view of the MVO employee, should add to the validity of the results. Similarly, the participating enterprises were contacted to re-examine the research findings and so ensure that the measurements were adequate and truly reflecting the participants ideas and experience. The accuracy of the qualitative findings is therefore re-assured by the participants of the study, enabling the participating entrepreneurs an opportunity to comment on the findings.

3.2.4..3. External validity

The research has a limited external validity as the case study represents one-country context, being the Netherlands and the same domain, being the social enterprises dealing with food waste, all part of *Verspillings is Verrukkelijk*. The findings are therefore based solely on the subcases explored and may not hold substantial effects in other domains and contexts. They are highly subjective, tied to the participating enterprises and the *Verspillings is Verrukkelijk*. This was however expected with the research aims and objectives of the following study. Being an instrumental case study, the selection of the case has not been based due to its 'representativeness' (McNabb, 2002:287). The focus has been placed on the 'intensiveness' rather than 'extensiveness', which naturally represent a barrier to the external validity. The in-dept explanatory narrative of this study, offering an 'exemplary knowledge' has a limited generalization capacity. However, it is believed that the constructed conceptual model may be easily applied in other contexts where similar findings may be found.

4. Case study

4.1. *Verspilling is Verrukkelijk* as an organisation network

4.1.1. Creation of the network, its purposes and structure

Verspilling is Verrukkelijk is one of many coalitions initiated by the MVO Nederland. The platform is a result of the *'Ontkiem je Kracht'* programme supported by the Dutch Ministry of Agriculture, Nature and Food Quality (web: MVO Nederland, News). Presenting itself as *'Centre of Excellence for Dutch companies that are striving towards social responsibility'* (web: MVO Nederland, about us), MVO Nederland is a networking organisation with more than 2000 organisations being its members. It could be described as an umbrella network, consisting of several other networks and coalitions vested with different objectives, just as the *Verspilling is Verrukkelijk* with food waste. These smaller networks and coalitions within the MVO Nederland could be assessed as network organisations on their own. MVO Nederland, being a rather extensive umbrella network, consists of diverse members ranging from small enterprises up to corporate giants (e.g. Cargill), from associations, NGOs, up to public authorities, etc. The overall objective of the MVO Nederland is development of a dynamic and fast-growing network and the ultimate goal is to achieve circular economy: *'new economy, which means circular exclusive climate neutral and fair'* (MVO project employee).

By the establishment of networks within the umbrella network, MVO Nederland offers to its members different target groups and sector-related networks and coalitions in which they can work together and collaborate with like-minded companies and experts in the concerned fields. *MVO Netwerk Food & Agribusiness* represent one of such networks. The network launches different innovation projects and coalitions related to the food and agribusiness, such as the *'Coalities en innovatieprojecten verwaarden van reststromen'* of which next to the other coalitions the *Verspilling is Verrukkelijk* is part of. On the figure 2. one can see the orderliness and a rather precise structure of the MVO Nederland, while at the same time the position of the *Verspilling is Verrukkelijk* being one of multiple similar coalitions of the overall MVO network.

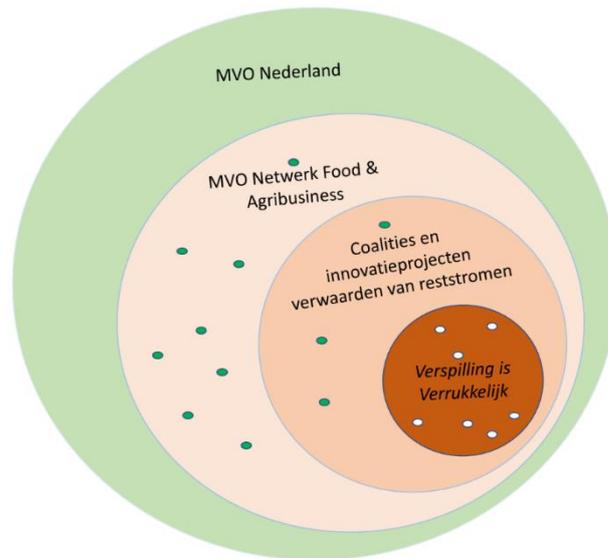


Figure 2: Position of *Verspilling is Verrukkelijk* in the MVO Nederland

The creation of the *Verspilling is Verrukkelijk* was officially launched in March 2018 by the MVO Nederland in consultation with the entrepreneurs dealing with food waste. The initiation to establish the platform started around September 2017 and involved some of the later participating members of the platform, who together with the MVO Nederland decided on the platform's operation and functioning. The intention of collaboration and sharing between the members has been an ambition ever since the debating of the platform's establishment: *'...with some experts available and with these groups we worked on okay, what can we do in the MVO Nederland, what can we do to help you better tackle the issue you are working on. Eehm and one of the conclusions was collaboration. That all these companies, most of them know each other and meet each other time to time but they would never take a time to go in depth into these challenges et cetera. They can learn a lot from each other, and they struggle with similar challenges. So, collaboration seemed interesting.'*

Another reason behind the platform's establishment seems to be a representative purpose. *'The individual entrepreneurs, most of them are relatively small but shared they are quite a voice'* (MVO project employee). Highlighted also by the interviewed entrepreneurs themselves, majority of the members are very small, some of them consisting of just 2 people, and most of them being essentially start-ups, for which it is very hard to succeed and make a way to the market. One of the entrepreneurs nicely describes this: *'we are small companies who have the same problem, which is that larger retailers such as the Albert Heijn or Jumbo supermarkets or other retailers are just not interested in working with such small companies because the volumes that Albert Heijn or Jumbo or any other supermarket needs is way more than all the small companies alone can provide. But in a consortium of the small companies then we are, or *Verspilling is Verrukkelijk* is a bit bigger, so also much more PR, power...'* (entrepreneur 3). *Verspilling is Verrukkelijk* provides the entrepreneurs with possibility of shared presentation and

voice, enabling them with more opportunities such as taking part on different fairs and food festivals, which otherwise most likely would not be possible for them. *‘So, they get invited to be in fairs like... the fact that they have like a shared voice makes it possible to be there. For them individually it would be impossible to be on that fair, because it is too expensive one, and they don’t have the capacity to man it’* (MVO project employee).

Similarly, there was a commercial interest and a belief that the platform’s creation will ease the enterprises’ searching for interested retailers and reaching of the consumers, *‘we kind of need initially a platform for reach, a reach towards buyers of our products, where we can share the individual reach and come to like new clients...’* (MVO project employee).

Accordingly, the network organisation could be characterized as ‘goal-directed’, as opposed to a ‘serendipitous’, since it was formed with specific purposes and intentions behind its establishment. The primary intentions behind the Verspilling is Verrukkelijk’s establishment, based on the available information, can be summarised as:

1. Representative purposes, larger voice
2. Collaborating, sharing of the common challenges and ways how to overcome them
3. Commercial interested, easier reach of the consumers and retailers

Table 5: Primary intentions behind the Verspilling is Verrukkelijk’s establishment

Another purpose not mentioned during the interviews, but hopefully still a critical one as it is stated on the platform’s website and as all the individual entrepreneurs assert to it, is to jointly fight the problem of food waste. By joining the forces together, the entrepreneurs are able to reach more people with their messages and so contribute to consumers awareness about food waste. This is mentioned also in the strategic objective number 1. in the official *Verlichtlijke Spel Rules* (Verspilling is Verrukkelijk: Verrukkelijke Spelregels), which are the ‘game rules’ for the platform’s participating members. The objective declares that the members work together to realize food chain in which there is as little waste as possible and do so particularly, by drawing the attention to the problem, actively contributing to the consumer’s awareness of it by offering them with a sustainable alternative, and so encouraging people to take an action against food waste themselves.

Important aspect of the pioneer discussions on the platform’s creation was also the feasibility of developing a common brand shared by the platform’s members. *‘They talked about developing a common brand, but at the end they didn’t, they were not able to come together based on that concept. But also, mainly because they all have relatively some brands with a specific story and they didn’t want*

to lose on the brand and on the story by trying to come to a common brand' (MVO project employee). The fact of entrepreneurs' having their own identity and brand seems to be an important basis of the platform's operation. Although at first glance for an outsider it may seem like the social enterprises are more or less the same, essentially almost all converting wasted or unwanted food into new products, the participating enterprises are still distinctive and essentially differ from one another. This diversity and meaningful differences between the members have been highlighted during all interviews with the concerned entrepreneurs, with some of them seeing it as rather problematic, hindering the functioning and meeting of the platform's objectives.

Going back to the pioneering discussion, the agreement was that *'Verspilling is Verrukkelijk connects the entrepreneurs and brands them at the level of their overall social ambition, being to tackle the food waste problem, while leaving the enterprises with their own individual brands and plenty of room for their own identity'* (web: MVO Nederland, News: Ondernemen met impact).

4.1.2. Contemporary picture, operation and functioning

Although the official number of the enterprises as members of the Verspilling is Verrukkelijk is stated to be 18, two enterprises are no longer active members (both subcases of this thesis). As such the platform has at the present time 16 members. The members meet in person around 3 times per year, while the main communication channel is a WhatsApp group which the members share. Furthermore, there is a skype call facilitated by the MVO Nederland, which takes place every three weeks.

The current role of the MVO Nederland in the platform is officially stated to be an independent facilitator and coordinator of the Verspilling is Verrukkelijk (*Law number 6., Verspilling is Verrukkelijke Spelregels*). Moreover, the MVO Nederland acts as a representative on behalf of the platform, or as the representative MVO project employee describes it: *'we kind of coordinate the direction, we push the decisions if the entrepreneurs cannot come to a decision, because they all have double, they have on one hand there is like the common, the shared mission but they also have their own needs, wants. So, they are not totally objective in the discussion and we, MVO Nederland, are objective. We don't have our own entrepreneurial wants or needs. We are just working with the common mission which we find important...'* (MVO project employee). The position of the MVO Nederland as a facilitator/catalyst has been agreed on by all the interviewed entrepreneurs. An example: *'they are facilitating, so they are not really coordinating but more facilitating. They are trying from a bottom-up perspective really to help us come together, share ideas and so they are not coordinating and telling us what to do...so they are facilitating in a really nice way'* (entrepreneur 2).

Based on the distinction of network governance forms established by Provan and Kenis (2007), Verspilling is Verrukkelijk can be characterized as a brokered network, something in between a lead

organisation and participant-governed network. The perception is however, that the network governance form is more a lead organisation, with the MVO Nederland taking this lead. Although it could be disputable whether the MVO Nederland could be assessed as a network member, it undoubtedly provides administration for the network, facilitates it and assists in its activities.

By the virtue of its role, it is also the MVO Nederland, which is in charge of and coordinates the regular calls between the members. As described by one of the interviewees: *'MVO does facilitate that, so every time there is a skype call, a trainee raises its, makes notes, sends it to everyone and addresses stuff that needs to be addressed'* (entrepreneur 3). Furthermore, there are four working groups assigned by the MVO Nederland to oversee and supervise different areas of the *Verspillig is Verrukkelijk*, one responsible for the retail, one on food services, another one called strong brand and lastly a group working on *'professional organisation in the future, which is further formalizing the collaboration most likely into a cooperation'* (MVO project employee).

4.1.3. Struggles, their improvements and future vision

The latter aspect speaks for the further ambition of the platform's direction, moving from collaboration towards cooperation. The summarized second intention behind platform's establishment as *'collaborating, sharing of the common challenges and ways how to overcome them'* between the members, is something which could in practice at present time be rather disputable to function. The reality seems to be, that the participation and commitment to collaborate with the others is not equally shared among the members. Several members seem to be rather active, committed and frequently responding, while others seem to be *'cherry picking'*, responding and participating only when it is benefiting their individual enterprise.

Both, the struggle of collaborating and sharing as well as the modest level of commitment of some members, have been described not only by the interviewed entrepreneurs, but also by the representative MVO project employee. As such, the following struggles have been already successfully identified and there exist discussions on how to overcome them.

Regarding the struggle of collaborating and sharing between the members, according to the MVO Nederland there are already actions in place to improve these and one can already see a progress in the desired direction towards stronger collaboration and future evolvement into cooperation: *'that is something which we are further elaborating on. The trust between each other is getting stronger. And now the entrepreneurs they are asking, they are sharing their individual challenges...for example there is one which goes into certain market and has a packaging challenge and there is five of the entrepreneurs that share their experience with that...'* (MVO project employee).

In a likewise manner, the struggle of commitment is said to be similarly dealing with: *'that is one thing we are working on currently; we are formalizing a commitment a bit further. Because what you see is that there are several entrepreneurs who go somewhere and sell everything and they are all into the total assortment. And then there is others that get somewhere and sell their products and if there is a lot of space and positivity, they might add ooh yeah by the way I am also part of this and that, maybe you could also consider this product...So the level of are you somewhere as an individual or as are you somewhere as a proud member of a collaboration and an individual, that differs from company to company, or a person to person. But we are working on it, to kind of, well not standardize that, but improve it yeah'* (MVO project employee).

When it comes to future vision and functioning of the platform, besides the strengthen collaboration between the members and a higher commitment, the discourse suggests adjustments in current role of the MVO Nederland as the 'lead organisation' and the network's main facilitator. *'The mission there, the idea there is that in the end, the entrepreneurs do all the commercial and developing work. So that is where are we moving now. Our role is bigger than it should be'* (MVO project employee). This is in agreement with a statement of one of the interviewee: *'I think that now it is MVO Nederland who is taking the lead, but I think it has to be maybe an entrepreneur, so it would be a more commercial'* (entrepreneur 1b). As such, it could be said that there is ambition to alter the current 'lead organisation-governance network' to a more 'participant-governed network', when the network will be less brokered with a more active engagement of the members, governing and overseeing the network's activities themselves.

Also, there exist a thought about changing the current free-of-charge participation in platform. Although most of the platform's members are also members of the MVO Nederland and so are obliged to pay the MVO fees, the participation in the MVO as a precondition to participate in the Verspilling is Verrukkelijk was labelled as a 'soft requirement' only. *'We ask them to become member. It's not obligatory. Some participants are not a member'* (MVO project employee). The thought of changing this is however, not in a way of starting to charge the entrepreneurs for their membership in the platform, but more in terms of shared investment and resources.

4.1.4. Joint achievements and presentation

Most likely the greatest joint achievement of the platform, mentioned by all interviewees, is the launch of a permanent food waste shelf at a Jumbo store in the city of Wageningen. Being a result of joint efforts and labelled as the most prominent achievement of the rather short period since the platform's establishment, the shelf offers to the customers all the retail-ready products of the participating enterprises. Attached to it is a flat screen showing the story of the Verspilling is Verrukkelijk's brand and ways how food waste can be tackled. The shelf is first of its kind, offering the entrepreneurs' products

for sale at one place for a long-term. The ambition is naturally that more supermarkets will follow and the accessibility of the entrepreneurs' food waste products for the regular consumers will increase. All the retail ready products of the Verspilling is Verrukkelijk can be similarly found in the Verspillingsfabriek but only for a demonstration purposes, not for a retail.

Other joint activity which the enterprises accomplished together at the of 2018, was a development of a 'Christmas package' assorting all the retail-ready products and meant as a Christmas gift. Besides, other joint actions of the members are mainly presentation of the Verspilling is Verrukkelijk on various food fairs and festivals.

4.2. Subcases

The following table summarizes the four enterprises of the Verspilling is Verrukkelijk, demonstrating the four subcases of this thesis. Finding on the individual subcases (analysed from the perspective of each enterprise) can be found in the appendix.

Table 6: Summary of the four subcases

	Subcase 1	Subcase 2	Subcase 3	Subcase 4
Joining the network organisation	Active member since the very beginning. The enterprise was present at the initial discussion on the network's creation.	Joined the platform among the later members in 2018.	Joined the network 'some time' after its official launch in March 2018.	Joined the network 'some time' after its official launch in March 2018.
Still an active member?	Yes.	Yes, identifies itself as one of the most active members in the network.	No, and the existence of the enterprise is as said by the entrepreneur only 'on the paper'. The membership has been cancelled by the end of 2018, but before the actual shut down of the enterprise's production. The entrepreneur is still a member of the network's WhatsApp group.	No, membership has been cancelled by the end of 2018. The entrepreneur is still a member of the network's WhatsApp group.
Size of the social enterprise	Directly employing 50 people in the factory. However, the actual number of people involved with the enterprise is bigger due to its affiliation with successful catering company, labelled as a 'sister company' of the enterprise as they both have the same founder.	Four people are formally involved with the enterprise in the Netherlands, from which 2 only on occasional basis, while in Kenya it is 'hundreds of farmers and tens of operators, agronomist, food technologists...'	The enterprise is no longer enduring. While it still was, it consisted primarily only by the entrepreneur himself.	The enterprise has been described as a 'kind of brand for the consumers', used by another cooperation strated by the entrepreneur in 2018, which has at the present time around 40 participating farmers.
Objectives of the enterprise	Dealing with wasted building and furniture, 'waste' people and wasted food.	Dealing with food waste in form of wasted Kenyan tomatoes, out of which the enterprise produces a 'sauce with a case'. The overall mission is wider, aiming to stimulate agricultural improvements and genuine development of the local economy, realizing essential life advancements for the farming communities in the developing countries.	Described as 'tackling three complex problems at once', being: the creation of jobs for people who are at distance from the labour market, tackling food waste and doing something with the empty buildings in the city of the Hague.	The main objectives behind the enterprise's establishment was that the goat dairy is popular in the Netherlands, but consumption of the goat meat is rather limited. The problem at stake are billy goats, which are very often slaughtered right after their birth. They cannot produce milk and the cost of raising them would outweigh its benefits as people in the Netherlands genuinely do not consume their meat. And as such, the meat of billy goats, as well as their life in general, is being wasted. The enterprise's purpose is therefore mainly about enabling the billy goats to live a decent life and encouraging Dutch people to eat occasionally goat meat, which is in other countries such as Southern European considered a delicacy.
Way of achieving the objectives, operation basis	Purposely chosen location in an abandoned building which has been filled with rescued furniture such as recycled school desks or chairs from the Amsterdam Schiphol Airport. By 'waste' people, the enterprise aims to make a statement concerning the social values with a belief that talent should not go to a waste. Majority of the employed workers in the factory are people located at distance to the labour market, such as death people or former criminals. Way of tackling food waste is by converting the wasted or unwanted vegetables into new products.	The enterprise is all about producing ketchup. The ketchup is made from dried Kenyan tomatoes, which would have otherwise ended up wasted. According to the enterprise's official website, 40% of Kenyan tomatoes is being wasted right after the harvest, presenting a significant waste of resources as well as unpleasant effects on the farmers' incomes. Together with the Kenyan farmers an idea was born, which was followed by a rather successful crowdfunding in 2017, raising enough money to set up a ketchup production. The operation works on the following bases: the tomatoes are being dried and vacuum sealed in Kenya (identified by the enterprise's representative as the most valuable part of the whole production), then are transported to the Netherlands where they are bottled into ketchup.	The enterprise's vision was to initiate a movement changing the perception of perfection, with saying 'fuck perfect, be real', appealing to the importance of inside and not the appearance. Although this perfectly fits with the unwanted and so wasted fruits and vegetables, the vision of the movement had a wider meaning, describing the genuine contemporary perception of perfection in our society. Although winning a contest and receiving a support from the municipality of the Hague, the enterprise has never made it to a proper production of its products, as described by the entrepreneur it has 'never made it out from his own kitchen.'	Enabling billy goats a wonderful life on a farm, familiarizing the Dutch with the goat meat which is otherwise wasted by promoting and selling the enterprise's organic goat meat.
Products and supplier&retailer linkages	The main products of the factory are soups and ketchup. The supplier as well as retailer linkages of the enterprise seems to be rather well developed, the consumer can find the products in different supermarkets all across the Netherlands. Likewise, the enterprise's soups are served by the 'sister' catering company and also supply some hospitals. Besides the production of its own products, the factory is cooperating with other companies and entrepreneurs, who use its facilities to produce their individually branded products (thereof the different names of the soup in different supermarkets). For instance, two types of long-life soups of Albert Heijn brand are being produced in the factory, consisting of the rescued products from the Albert Heijn itself. As such, in addition to production of their own products, the enterprise offers 'production services' also.	Primary product of the enterprise is Ketchup, which can be nowadays bought in different outlets across the Netherlands, as well as online. The earnings from the retail are allocated back to Kenya and invested into the agricultural improvements.	A collaboration was set-up with a tomato's grower, and so the enterprise's products were primarily made out of the rescued tomatoes, such as tomato soup, ketchup or tomato powder.	The enterprise's product is primarily fresh goat meat. In addition, there are products like sausages, pate or ragu, in which the enterprise's goat meat is used but the product itself belongs to other companies.

Two of the enterprises are no longer active members of the platform, for which the reasons will be now portrayed.

In case of *subcase 3*, a no longer existing enterprise, the platform has been left by the entrepreneur before the actual shutting down of the enterprise's production. This was reasoned with the entrepreneur's perception of 'not gaining anything' with the platform's participation. *'Everything I have done came from before the ViV network attachment. That is also the reason why I am not longer a member of the overall group.'* Another reason for leaving the platform was financial situation, *'it is very hard to make an honest living by working with food waste'*, ultimately leading to inability to pay the MVO membership fees. Altogether, although there was a sense of regret that the enterprise has not been successful and no longer endures, it helped the entrepreneur to move on and secure a new job position in which he can pursue some of the enterprise's objectives on a larger scale: *'So I mean for me it pay off and at the end I am able to make even bigger impact on food waste from the position I am in now than I would have been from the position of the enterprise.'*

In the case of *subcase 4*, there were identified several causes for leaving the network organisation. First, being the enterprise's product, which is primarily fresh meat, which retail is more complicated in comparison to the other participating enterprises and their products. A sense of regret was felt during the interview with the entrepreneur since the situation has been described as: *'we wanted to continue with Verspillling is Verrukkelijk but we don't have a product. The only product we have is frozen food and Verspillling is Verrukkelijk does not have a frozen space in a supermarket.'* The non-existence of directly owned 'shelf products' which could be retailed next to the other Verspillling is Verrukkelijk products, hindered the accessible benefits of the participation in the network, and so also the willingness to continue this participation. Although, there was a sense of frustration about no longer participating, since the representative of the enterprise spoke about the network organisation as 'the right platform for them' and a means thanks to with the Dutch consumers could 'meet the goat meat in the supermarket.' Another reason for leaving the platform was identified as a lack of time and personnel who could join the network's meetings, both causing the enterprise to be a less active member also during its still functioning membership in the platform. *'because we are farmers it is quite difficult to join all those days since we have work on our own farm. Last year we had (name) and she was working for our cooperation and she was joining those days, but she quitted too now, and because she quitted there are no other people who could took over her job...'* Lastly, another platform called BioNext, which the enterprise is member of, has been described as more helpful for the enterprise. *'We get more help from another platform BioNext, they have also project name Man in de Pan..it is also about the male meat in your cooking pan.'* *Subcase 4* identifies itself more with this platform as it corresponds better with the core objectives of the enterprise, precisely the biological aspect of the meat and the special campaign devoted to the increase consumption of male animals.

5. Findings and Analysis

5.1. On social capital

Although analysing the dimensions of the social capital separately, they are undoubtedly interrelated and influence one another. This has been observed also during the interviews as the interviewed entrepreneurs were sometimes connecting an indicative question of one facet of social capital's dimension to the aspects of another facet. The assumption behind the conceptual model was, that some enterprises may find some facets linked to a particular dimension of social capital more 'relevant', meaning that are able to connect its relevance to their enterprise more, than the other facets. This assumption turned out to be fairly accurate, as some considerable differences can be observed in the analysed subcases.

For instance, for the *subcase 1* the facets of cognitive social capital were all assigned values of 'high relevance', and so reaching the overall score 8 out of 8. As such, it could be said that for this enterprise the cognitive dimension of social capital is the most 'prominent' one, since the other two dimensions scored significantly lower. The cognitive dimension seems to be in overall most relevant also for the *subcase 4* and *subcase 3*, for which the cognitive and relational dimension are more or less equally relevant. For the *subcase 2* relevance of the cognitive dimension can be similarly highlighted, but for this enterprise the relational dimension is fairly relevant also. It was clear from the interviews that the personal relations between the *entrepreneur 2* and some of the network's members are rather strong and that the entrepreneur considers these members more as 'friends' when highlighting that it is definitely not a 'business relations' which they have. The narration, of for example, finding 'like-minded individuals' in the network, 'clustering with some members', feeling of obligations towards some members, etc. indicated facets of relational social capital as meaningful for the entrepreneur. The entrepreneur seems to be utilizing the assets which the relational social dimension in form of the network organisation offers.

Although each dimension of the social capital was considered to be valuable on its own, when combined together they were believed to endure the broadest volume of assets. And so, only when the enterprise is able to recognize the facets of all three dimensions and considers them as relevant, it has the potential to utilize the assets which the dimensions offer. Based on the information acquired from the analysed subcases, it is the *subcase 2* which scored the highest number of positive values. And so, when compared to the other three enterprises of the subcases, it recognizes, values and utilizes the most assets which the network organisation in a form of social capital offers. The *subcase 2* has been also the enterprise with the genuinely most positive narrative and view on the network organisation.

Another assumption was, that the enterprise which recognises and utilizes all three dimensions of the social capital will possibly have the largest volume of adopted innovation. In line with this, the *subcase*

2 seem to be rather an innovative enterprise, having number of innovation adoptions in the recent year and several other implementations of novelty planned for the close future.

Altogether, the cognitive dimension surprisingly turned out to reach the highest positive values in all subcases. It could be therefore said, that the network organisation accumulates and present a good source for the facets of the cognitive social capital. The structural dimension scored very low, essentially reaching negative values in three subcases. This proved to be rather problematic as the structural dimension not only influences the development of relational and cognitive dimensions, but also as the dimensional' facets affect the actual access to the other members, it plays a crucial role in providing the network with opportunities for information and knowledge exchange, and so eventually the overall role which the network can play in the adoption of innovation.

As already explained in the methodology chapter of this thesis, the following displayed graphs have mainly an illustrative role to supplement the text which describes and analyses the concepts at stake. As it can be seen on the graphs, in most cases the overall scores of the assigned value are rather low, do not deviate much from zero. The reason for this is, that when answering the indicate questions concerning a particular dimension, in some cases the entrepreneurs were either undecided (in which case the assigned value was 0) or considered some indicators to be relevant while others not, which eventually balanced out the assigned values and caused the final value to be close to zero.

The following section discusses the separate findings on each dimension of social capital. A table summarizing the final assigned values for the individual dimensions by each subcase can be found in the appendix (table 11).

5.1.1. Structural social capital

Structural social capital, concerning the impersonal configuration of linkages and thereof the overall properties of the network, was altogether considered rather adversely in all subcases. With the lowest score in the case of *subcase 3*, the entrepreneur's dissatisfaction of the tangible possibilities the network could offer, was also one of the main reasons why the entrepreneur decided to leave the platform. The adverse consideration and altogether a rather low score of the structural dimension can be assessed as problematic for the network's functioning and meeting of the intentions behind its establishment. Firstly, because the entrepreneurs of the subcases are genuinely unsatisfied with the overall structure and the network's operation, which is naturally not a good starting point for meeting of the network's objectives and goals. A considerable 'room for improvements' was highlighted by the entrepreneurs, such as strengthening of the rules concerning the members' commitment, changing of the MVO's role in the platform, or improvements/alteration of the communication within the platform. Secondly, the low score of the structural social capital and the unfavourable judgements on the platform's structural properties are problematic in terms of reach and availability of linkages, affecting the possibilities for

knowledge and information exchange. And as such, the network lacks an important determinant for innovation adoption.

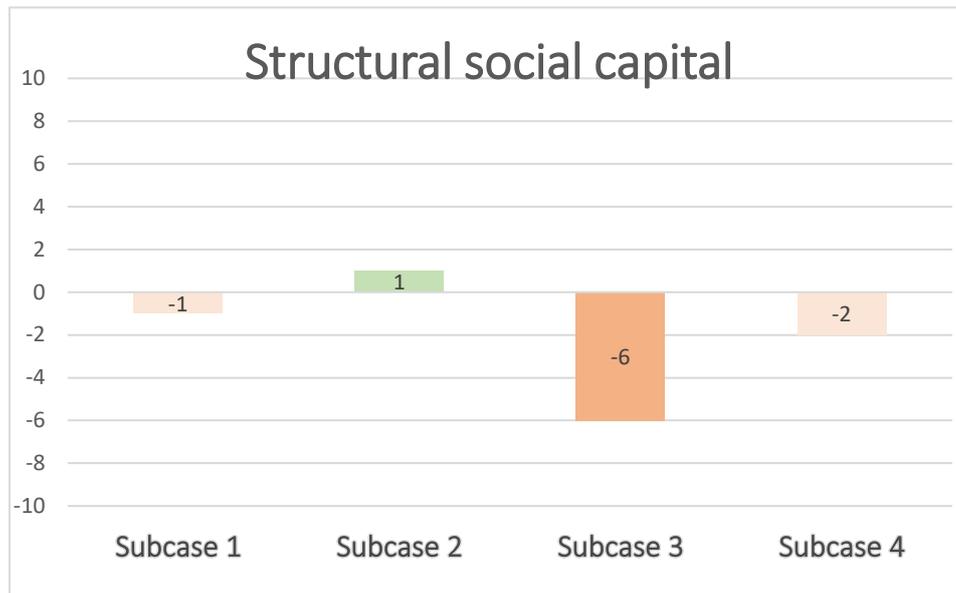


Figure 3: Findings on structural social capital

Network ties

In regard to the network ties, only in one subcase the platform was considered to increase the number of beneficial connections, both direct being the other members of the platform as well as indirect, being new connections reached through the other members. The *entrepreneur 2* explained that they were able to reach many interesting persons and parties thanks to their membership in the network, for instance they got to know 10 new parties in sales. For the other subcases a firm disconnection from this indicator was rather disappointing since the network ties represent access to resources and serve as channels for information transmission. The fact that in these subcases not even the direct connections, presenting the other network members, were considered as relevant for the enterprises was a quite surprising finding. When elaborating further, such finding could question the presented image of the platform as a 'collaboration of entrepreneurs who want to work together to realize a food chain in which occurs as little waste as possible'. (Strategic objective number 1. In *Verspilling is Verrukkelijk: Verrukkelijke Spelregels*) As willingness to collaborate with someone commonly indicates that the other party is somehow valuable and relevant for you.

The finding of the non-increase of valuable direct connections in three subcases could be partially explained by the fact that some members were known by the interviewed entrepreneurs even before joining the network and so an increase in the number of connections was not recognized. On the other hand, the other members that were not known beforehand were similarly not recognised, which may indicate that they are not considered as 'useful' connections for the enterprises. Summarizing, the ego network size was affirmed to expand thanks to the participation in the network in one subcase only.

Network configuration

The network configuration has been one of the mostly criticized indicators. The perception of an appropriate network structure has been assessed as 'highly irrelevant' in three subcases and in one assessed as 'undecisive'. Network properties, such as the one of connectivity or hierarchy, were brought up by the entrepreneurs with adverse judgements. These could be look at as obstacles, since these properties impact the level of contact and accessibility of other network members. Ideally, they are associated with flexibility and ease of information exchange, which does not seem to be the case of the structural properties of this network.

The structure was regarded as flexible, maybe even 'too flexible' and in two subcases the unequal commitment of the network's members was described as very problematic. In one case the aspect of hierarchy was partially brought up since the MVO Nederland was described as 'taking the lead in the network', which was disliked by the particular entrepreneur. Dissatisfaction with the overall communication in the network was discussed in two subcases. One entrepreneur dislikes the communication channel as he prefers face-to-face or phone conversations instead of chatting on WhatsApp, which was regarded as a 'poor way of communicating'. The two subcases which are no longer active members similarly seemed to dislike WhatsApp as the main communication channel, both revealing that they were not particularly happy with it and did not use the chat even when still participating in the platform. One entrepreneur assessed the overall structure of the network as 'too much talking and not that many actions.'

On the other hand, mixed findings were revealed when assessing the network structure stimulating the cooperation and learning. In two subcases a firm recognition of the network's structure to be well established and encouraging in this regard was acknowledged. In one case this was considered the 'strong point of the network' as it encourages enterprises to 'cooperate and communicate together to get the team of waste to a next level'. In another case the entrepreneur was rather undecisive as the aspect of network's structure stimulating exchange of knowledge and learning was considered highly relevant, but on the other hand the aspect of network encouraging cooperation between its members was regarded as highly irrelevant. The inability of the network to trigger cooperation between its members was perceived by the entrepreneur mainly due to the significant differences between the participating enterprises, hindering such cooperation.

Altogether, the properties of the network structure were different as anticipated. The assumption explained earlier in this thesis was that the network organisation represents a dense network of redundant ties with a more homogenous knowledge. From the gathered information, besides one case which has 'stronger ties' with several network's members, the overall picture seems to be that connections within the network are more non-redundant and so could be assessed as 'weaker ties'. The network is quite young, the members do not meet in person very often and so the relations, although

being prevailingly personal are not very strong. Moreover, the expectation of similar resources and a more homogenous knowledge among the members, can be similarly assessed as different than anticipated. The meaningful differences between the enterprises, such as in their profiles, products, visions and objectives or their recourses also in terms of knowledge, were oftentimes highlighted during the interviews, and so could disconfirm the assumption of the more homogenous knowledge among the members.

Appropriable organisation

Concerning the appropriable organisation, only in one case the platform has been used for different purposes as initially created for. Social capital and resources from the network have been transferred to another setting, where they were used in terms of guidance and advices for establishment of another network organisation. Regarding aggregation of one's personal social capital into the network, although three entrepreneurs indicated that such situation happen, besides one case the answers were somehow not very convincing. The entrepreneurs were not able to think of a particular example when such situation happened, and the indicator was in these subcases therefore regarded as 'fairly relevant' only. One entrepreneur was more persuasive in this regard when saying that he has 'brought in' his personal connections to the platform as he is 'always sharing connections' and also most likely 'sent some of the connections from the platform to other persons' as he recognised mutual benefits of such 'connecting' for the both sides. However, the same entrepreneur could not think of a situation of other members 'bringing in' their personal connections to the platform. He claimed that he 'never sees any names being send on the WhatsApp group for example' and if situation like that occurs, then it is 'certainly not very frequent' as the enterprises are looking more 'inwards', meaning that they focus on their individual enterprise and achievements instead of 'outwards'.

5.1.2. Relational social capital

The relational social capital scored somewhat better than the structural dimension, essentially in all subcases reaching positive values for the final scores. Showing the nature of the relationships between the members, the answers on inquiry of simply assessing whether the relations are more personal or impersonal varied. One entrepreneur said that for him the relations to other members were 'non-existent', another one did not refer to his relationships with the others but genuinely assessed the relations 'between them', meaning the other members of the network as personal. In the other two subcases the relationships between the entrepreneurs and the other network' members were praised as highly personal.

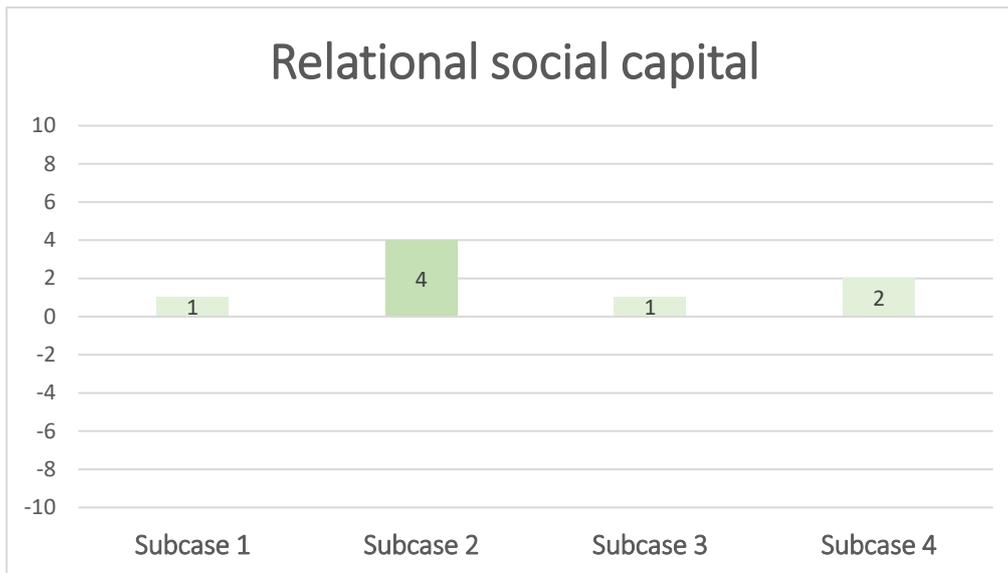


Figure 4: Findings on relational social capital

Trust

Trust was a 'highly relevant' facet in all subcases. All entrepreneurs felt like the other members take (or took) their interest into account and they genuinely trust them. One entrepreneur highlighted that there is 'more than normal level of trust' as they are all social people tackling social challenge of the world and so 'are all above normal willingness to share and to help each other'. Trust thereof does not seem to be a barrier potentially hindering the sharing with others. In connection to trust, aspect of competitiveness among the network's members was discussed, and in all subcases considered as non-existent. Although brought up spontaneously by one of the entrepreneur with a claim that the participating enterprises which produce same type of products are essentially competitors on the markets, however, later on clarified himself that the real competitors are the big corporations and thereof as long as the 'big corporations are out there and the food waste problem is present', the social enterprises dealing with the problem will never be real competitors.

Norms

Norms were regarded as 'highly relevant' in all subcases. Each entrepreneur was able to identify norms which are shared among the network's members. Defined as knowledge that is mutual and perceived in the same way by the actors, the most obvious shared norm which was identified in all subcases was perception of food waste as something very problematic and something which has to be 'fight against'. In two subcases fighting for sustainability was considered as shared norm and also the 'support and cooperation' as prevailing 'above competition' among each other, were highlighted by two entrepreneurs. Trust as a norm was similarly mentioned in two subcases and in one case aspect of transparency was brought up as another example of a meaningful norm shared by the members.

Obligations and expectations

On the inquiry of obligations and expectations the answers were almost unified. When it comes to expectations, as a commitment of a duty to undertake certain activity in the future, the interviewed entrepreneurs do not have expectations of this kind from the other members. When asked a hypothetical question as: in case they would share something in connection to their enterprise with another member, whether they would expect him to share things with them in a similar manner, the answer was always that is up to the others if they want to share or no. As such, sense of expectations does not seem to be present in the platform. Regarding obligations, in three subcases the answer was a clear 'no', meaning that the entrepreneurs do not feel like 'owing' something to another member. In one case the answer was differently clearly affirmative. The entrepreneur explained that there are several members of the platform which help his enterprise a lot, for instance sell the enterprise's products in their stores and support the entrepreneur also outside of the network. The entrepreneur therefore 'wants to do something for them in return' and so feels like 'owing them a lot'.

Identification

Concerning identification, as a process when the actors identify themselves with the others and may perceive themselves as one entity, the answers were rather undecided. In all cases the entrepreneurs identify themselves with the other members and with the network as a whole 'somewhat', 'sometimes' or 'with some members only'. The reasons for the only partial identification varied from a subcase to a subcase. In the *subcase 1*, which is one of the largest and most advanced enterprises in the network, the limited identification could be reasoned with the enterprise not having the same challenges as some of the smaller, only starting enterprises do. Moreover, the objectives of the enterprise are broader than just explicitly dealing with food waste. The broader objectives than just explicitly dealing with food waste similarly reasoned the only limited identification with others in the *subcase 3*, although the entrepreneur agreed that he identified himself with some of the other enterprises since he faced similar challenges as a small starting entrepreneur. Concerning the *subcase 2*, the objectives and aims of the enterprise are also much broader than just dealing with food waste and the focus on agricultural improvements in the developing countries really lies at the core of the enterprise. The entrepreneur identified himself with some of the other members but more 'as an individual.' *Subcase 4* reasoned the limited identification with others due to the enterprise's emphasis on biological aspect, as something which was lacked in the network and would have been expected more from the other members. As already touched upon, the network brands the enterprises at the overall level of their social ambition, while leaving them with a lot of room for their own identities and brands. The limited identification with the others as well as with the network as a whole could be seen as a potential barrier, limiting the motivation of information and knowledge sharing with the others since the members consider themselves distinct from the other members and feel more as individuals. Although all having an overall goal of tackling food waste in common, they simultaneously have their own objectives, focuses, and

ways how the food waste can be tackled, making the common identification, which can significantly influence the perceived benefits of actor's exchange with the other members, a rather challenging issue.

5.1.3. Cognitive social capital

The cognitive dimension of social capital surprisingly reached the highest scores when compared to the other two dimensions. As this dimension is often neglected by the scholars and frequently considered as a part of the relational dimension, the findings of this research demonstrate its considerable relevance and can affirm the Nahapiet and Ghoshal's (1998) believe that the dimension represents important set of facets which shall not be disregarded.

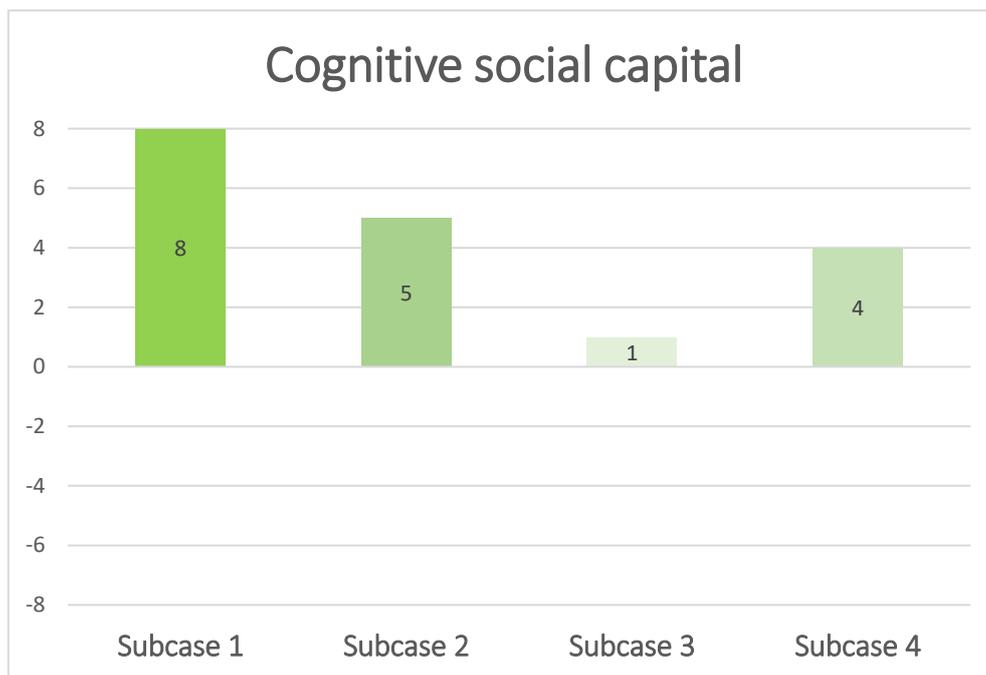


Figure 5: Findings on cognitive social capital

Shared language and codes

Regarding the shared language and codes, the facet of shared language was in all cases considered as highly relevant. Two entrepreneurs claimed that speaking in English would most likely be bearable as well, but the Dutch language makes the communication simply more comfortable as it is 'easier to express oneself.'

In the other two cases, not much the Dutch language itself was considered essential, but more a broader perspectives of 'Dutch origin', 'sharing the same culture' and 'living close to each other', were affirmed to be very important, easing the communication and cooperation within the platform. Two entrepreneurs brought up example of Belgian Flanders and explained that although having similar language, the communication can get quite tricky. One of them mentioned that the rules of exports and imports of animals are somewhat different in the Belgium than in the Netherlands, which is problematic in establishing collaboration with the Flanders although the language is essentially the same. By

highlighting this, the entrepreneur implied the significance of the network's members all being enterprises operating in the Netherlands.

The entrepreneurs, besides one, could not think of any codes which are shared within the platform and considered this aspect as nonrelevant. Only in one subcase the entrepreneur was able to think of an example which could be considered as shared codes, being the 'food rescue kind of terms' that are used in the network and might be hard to understand for an outsider. In this subcase the aspect of shared codes was therefore considered as 'highly relevant'.

Shared narrative

The facet of shared narrative was altogether considered as rather relevant. As this facet represent a meaningful way which can be used by the actors to create, exchange and preserve common sets of meanings and so could be comparable to a shared vision, this finding may not be very surprising. The network has been assessed as a 'goal-directed' and its goals directly involve the shared vision of joining the forces to tackle the food waste together. A shared context, in which the potential contributions of knowledge and information sharing could be framed in, is therefore in place and does not represent a barrier in this regard.

In all cases there was an affirmation of the motivational character of the shared narrative and shared vision to join the network by the entrepreneurs at the first place and to collaborate with the other enterprises. As such, this aspect was considered as highly relevant in all subcases and indeed seems to be a significant aspect which has been indirectly highlighted also during other parts of interviews. The motivational character of the shared narrative to strengthen the entrepreneurs' willingness to fight the food waste and to continue dealing with the issue, was similarly besides one entrepreneur regarded as highly relevant. In one subcase the motivational character of the shared narrative was in this regard disapproved. This was done by the entrepreneur whose enterprise no longer exists, and he himself no longer directly deals with the food waste issue.

5.2. On the knowledge absorptive capacity

The knowledge absorptive capacity has been conceptualised as an ability of social enterprises to acquire and assimilate new external knowledge from the network organisation and subsequently transform and exploit this knowledge into the already existing knowledge resources of the enterprise. The capacity was expected to determine the utilization of the resources and so the assets of the social capital offered by the virtue of the network organisation. The core idea was based on the belief, that even if the network presents a good resource for the development of the social capital with its affiliated assets, such as the external knowledge resources, their utilization is highly depended on the enterprises' abilities to realize, assimilate, transform and exploit these resources. An assumption has been made that the stronger and more developed knowledge absorptive capacity of an enterprise, the better its

innovation outcomes will be. This assumption happened to be somewhat accurate as the two enterprises, namely the *subcase 1* and the *subcase 2* which seem to bear strong internal knowledge absorptive capacity, are also the enterprises which mentioned several different types of adopted innovation since their participation in the network. These enterprises similarly seem to have a stronger ‘desire’ to innovate, endorsing another assumption made earlier in this thesis.

The following section discusses the findings on the potential and realized absorptive capacity of the enterprises and a table summarizing the final assigned values for each subcase can be found in the appendix (table nr. 12).

5.2.1. Potential absorptive capacity

In overall the potential absorptive capacity scored rather modestly, although in three subcases reached positive values. The reasons for the rather low score varied in the subcases, but generally in each subcase there has been at least one aspect considered as ‘highly irrelevant’ and so presenting a challenge in the entrepreneurs’ ability to acquire or assimilate the external knowledge coming from the network.

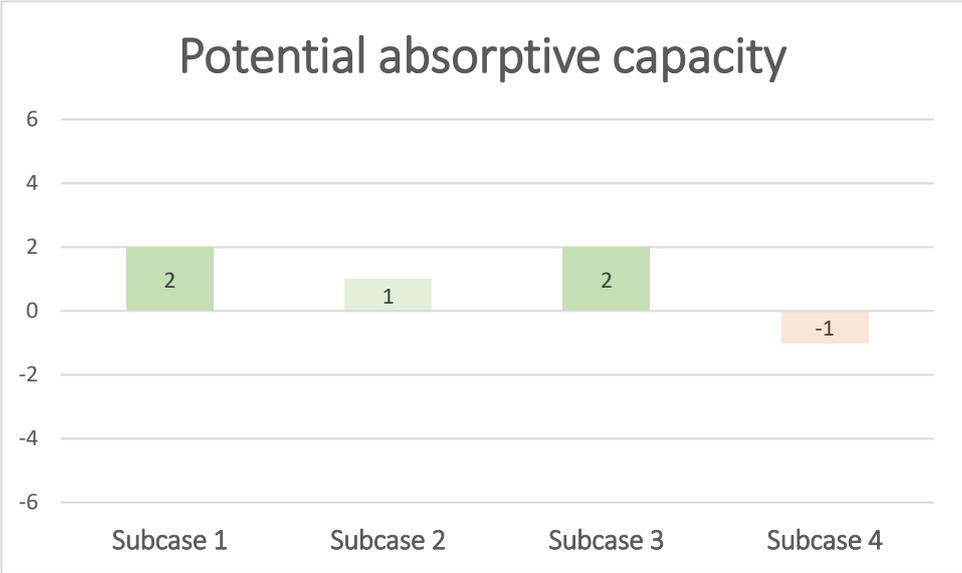


Figure 6: Findings on potential absorptive capacity

Acquisition

Acquisition, as an ability to locate, identify, value and acquire the external knowledge from the network organisation was assigned adverse values in three subcases. The entrepreneurs claimed that they were not able to identify valuable information or knowledge resources for their enterprise in the network. One entrepreneur had a rather strong opinion on the network offering him ‘hardly anything’. The other two entrepreneurs were slightly softer in this regard and simply answered that the information or knowledge identified as coming from the network was ‘not much for them’. Only one entrepreneur was able to identify network as a valuable source of information, useful for the advancement of the

enterprise. As discussed, this was mainly reasoned with some of the network's enterprises being 'way further', for instance 'have been supplying food parties for a long time and know how to deal with this parties', and so the entrepreneur has 'learned a lot' from them in this manner. Moreover, other beneficial knowledge resources which the entrepreneur acquired from the network were 'aspects regarding production' or 'how to do your fulfilment', which were in a like manner considered as particularly useful. Considering the acquisition capacity, all entrepreneurs affirmed that they are (were) generally motivated in learning and acquiring new knowledge to advance their enterprise. This however seemed to be done mainly through their individual research and not a manner of a collective action. When asked by which means do the entrepreneurs transfer their motivation in the continuous learning and acquiring of new information into practice, the answers were that they do it mostly themselves, such as checking and gathering information online.

Assimilation

Regarding assimilation, as an ability to understand and absorb the external knowledge, in two subcases the entrepreneurs seem not to have no problem with understanding the information shared within the platform. Differently, in the other two subcases comprehension was rather problematic. One entrepreneur said that it was not always easy to understand the language used in the network since the entrepreneurs often use 'difficult terms', such as English terms, which the entrepreneur could not understand. Another entrepreneur considered the inquiry on assimilation as a 'really important point' since the 'new commers in the platform have during the first months no clue what is talked about'. The entrepreneur shared his own situation, joining the network as one of the later members and found it very challenging to understand and assimilate the information which the network offered. The entrepreneur's inability to understand was not only because of the terms which were used by the other members, presenting many shortcuts, but also due to the context of the messages. As explained, when there was a case that the information has been already discussed by the entrepreneurs before, they 'would not explain the situation very well, making it for the newcomer very challenging to keep up with what's being said'. As such, the assimilation capacity was at the beginning of the entrepreneur's participation in the network challenged a lot, but later on with an 'active involvement' the comprehension of the shared information improved.

5.2.2. Realized absorptive capacity

Altogether the realized absorptive capacity scored rather low, essentially in two subcases reaching considerably negative values. This may not come as very surprising considering the fact of the potential absorptive capacity scoring low values also, and that according to the Zahra and George's (2002) the dimensions of the potential and realized absorptive capacity build on each other. Interestingly in the

subcase 2, the enterprise scored slightly higher in the case of realized absorptive capacity than the potential, which may question the idea of the individual capacities building on one another.

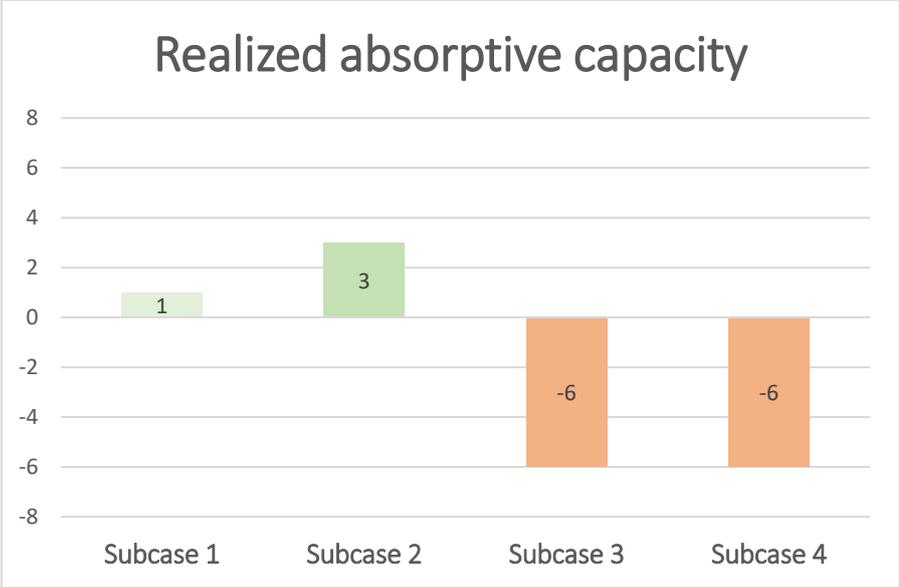


Figure 7: Findings on realized absorptive capacity

Transformation

In regard to transformation, which speaks for the enterprise’s ability to develop and/or redefine the internal organization so that it can facilitate the transference and combination of the existing internal knowledge with the acquired and assimilated external knowledge, the findings are somewhat mixed. Regarding the ability to combine the enterprise’s internal knowledge with the external knowledge coming from the network, two subcases were assigned ‘firmly relevant’ values while the other two ‘highly irrelevant’. The ‘highly irrelevant’ values derived from the entrepreneurs negative connection of the indicator with their enterprises, mainly with saying that they were not able to combine their knowledge with the one coming from the network as the network essentially did not offer them any valuable knowledge, or only with very little. Differently, other two entrepreneurs affirmed that they were able to combine the new knowledge and/or information coming from the network with the one which they already possessed. The inquiry on a situation of reconsidering the enterprise’s internal knowledge or ‘how the things are being done’ based on the external knowledge coming from the platform disclosed some interesting insights. Two entrepreneurs affirmed that they have found themselves in such situation of ‘reconsidering’. Providing examples such as reconsidering the ‘prices or margins, how are other doing it and why’ or reconsidering some aspects based on the ‘conversations within the platform about food waste and how market does respond to it and how you can react on it’, the entrepreneurs were able to think of examples when they have reconsidered their internal knowledge or ‘how they do things’ based on the external knowledge coming from the platform. In these two cases the values assigned were thereof ‘highly relevant’. The other two entrepreneur were not able

to think of such situation, indicating that it most likely did not happen, and so their answers were assigned 'highly irrelevant' values.

Exploitation

In overall, exploitation, as enterprise's capacity to harvest the external knowledge and to refine, extend and/or leverage the existing internal competencies in a way that it creates new competencies for the enterprise, scored very low in all subcases. A situation of adjusting the enterprise based on the external knowledge coming from the platform was relevant, and so scored positively, only in one subcase. The entrepreneur affirmed that some internal aspects of the enterprise were 'indeed adjusted' thanks to the platform, providing an example of their 'fulfilment' and 'some other changes especially in ways of how and which customers to approach'. The other entrepreneur disclosed that situation of adjusting their enterprise based on the information and/or knowledge shared within the platform did not happen. In terms of connecting the network to the enterprise's innovation, three subcases were assigned zero values. Two of the entrepreneurs could not answer the inquiry whether the network has maybe reinforced the innovation of their enterprise, both saying 'I don't know'. One entrepreneur was not asked the question as it has been clear from the previous discussion that situation of enterprise's innovation adoption did not happen. The last entrepreneur firmly disapproved that the network would play any role in the enterprise's adoption of innovation, explaining that although the network 'strengthens the enterprise, it motivates us and helps to reconsider certain things', it is 'not helping us to innovate.' And so, the entrepreneur was not able to connect the enterprise's innovations with the network, resulting with assigned value of the indicator being 'highly irrelevant' for the enterprise.

The findings nicely show that the two enterprises, whose scores in the realized absorptive capacity is considerable negative, are also the ones which no longer participate in the network. It can be debatable how influential was their inability to bring in some tangible gains from the network, in terms of its stimulation in creating of their enterprise's novelty, when deciding on leaving the network. The presence or the strength of the internal knowledge absorptive capacity of these two enterprises could be questioned, as in both subcases their competencies to acquire and assimilate the external knowledge from the network and subsequently transform and exploit this knowledge, were somewhat weak. The absence or weakness of the knowledge absorptive capacity in these two subcases could reason why in one subcase the enterprise was not able to adopt any innovation at all, and in the other one the entrepreneur was not able to connect the adoption of innovation with the network. Differently, these can be also reasoned not as a result of the non-presence or weakness of the knowledge absorptive capacity of these enterprises, but rather as a consequence of the network itself not offering the entrepreneurs with enough and/or adequate information and knowledge resources.

In regard to the other two subcases, the knowledge absorptive capacity seemed present and well developed, and so should not hinder their ability to utilize resources from the network. However, in both subcases the entrepreneurs were not able to connect the network with their adoption of innovation. In particular, based on the answers provided, the step within the dimensions of the realized absorptive capacity, as the leverage from transformation to exploitation, seemed to be in both cases problematic. In other words, although both entrepreneurs of the subcases perceived the network as a valuable source of information and knowledge resources or made at least some reconsiderations based on the information which the network offers, they disconnected it to play any role in their enterprises' innovation adoptions.

5.3. On innovation

The main inquiry of this thesis is to assess the influence of social capital of the network organisation on its four participating enterprises' and on their adoption of innovation. Discussing the important role which innovation plays for the survival of the enterprises in the era of food waste slowly becoming a 'buzzword' and high tendency of establishing similar enterprises and ideas of how to deal with food waste, the enterprises of this case study, with an exception of one, could be considered as genuinely innovative, implementing chances and adopting innovations which present novelty for the particular enterprise. Based on the acquired information, both from the interviews and the desk research, a table 5. presents a summary of the different innovation kinds adopted by the enterprises within the last year or planned to be implemented in a close future.

	<i>Subcase 1</i>	<i>Subcase 2</i>	<i>Subcase 3</i>	<i>Subcase 4</i>
Innovation adoption	new production method (production of long-shelf life products instead of chilled products only with 30 days shelf-life)	introduction of new products on the national market niche (recent launch of two new products on the Dutch market a mango ketchup and smoky ketchup)	x	developed new supplier linkages (establishment of the Bio Goat Meat cooperation, with more farmers joining and supplying the meat)
	new distribution method (distributing products made by the enterprise through other brands and companies)	planned new marketing method (making the supplier chain more transparent for the consumers)		introduction of a new distribution method (introducing the biological meat on a broader range of websites, where it can be purchased by consumers online)
	introduction of a new product on the national market niche (introduction of new ketchup and soup' flavours)	development of new supplier linkages (new Kenyan farmers joining and supplying their tomatoes)		reorganization of the enterprises' operation (accordingly to the establishment of their own cooperation)
	entry of an unexploited market niche (supplying the products to hospitals)	attempted entry to an unexploited market niche (intended international expansion)		planned reorganization of the enterprises' operation (improvements in the enterprise's logistics)
	reaching of a new business model (recent opening of a branch at the Schiphol Airport)	reorganization of the enterprises' operation (implementation of a new dryer in Kenya)		planned advancement of the marketing method (improving of the product labels, providing more information to the shoppers)
	new marketing method (acquired organic certification)			

Table 7: Findings on innovation adoption

To shortly highlight some aspects, in connection to the *subcase 1* the most significant innovation adoption was considered to be the production of long-shelf life products, categorized as a new production method. The enterprise was before producing only fresh soups and ketchups, which had 30 days of shelf life and needed to be placed in the 'chilled area' of supermarkets. The enterprise altered

its production method so that nowadays the life shelf of their products is one year, 'with which they can reduce more waste'. Another example of important and recent novelty for the enterprise has been the opening of a new branch at the Schiphol Airport, described as a 'new business model' which the enterprise is reaching. A very recent innovation adoption, identified as a new marketing method, is the enterprises acquire of certification to produce and label the products as organic.

Subcase 2 was considered a quickly advancing enterprise which very recently introduced two new products on the Dutch market. This was highlighted by the entrepreneur as the most recent adoption of innovation and something which the enterprise is very happy about, since it considerably expands their products range. More and more Kenyan farmers keep joining the enterprise, presenting new supplier linkages as the main supply needed for the enterprise's production are precisely the Kenyan tomatoes. The enterprise is currently working on a new marketing method, trying to 'develop and interface in which the consumer can really see which farmer made what, how much he earned from it and so on'. Additionally, during the time of the interview with the entrepreneur the enterprise was slightly reorganizing its operation due to the implementation of a new tomatoes' dryer.

The *subcase 3* was more problematic in terms of assessing its innovation, simply because there has been no innovation adopted which could have been discussed. The enterprise is no longer present, or as the entrepreneur said: 'exists just on the paper but does not produce anything anymore'. It was clear from the discussion with the entrepreneur that even when the enterprise was still enduring, no innovation has been adopted. The subcase could be connected to the described Osburg's (2013) theory of 'overcoming the chasm'. As the entrepreneur himself agreed, connecting three complex societal challenges into one solution was a rather ambitious idea, which turned out not to be working. The entrepreneur shared during the interview other ideas of innovative enterprises, which he would like to one day establish. The theory of 'overcoming the chasm' exactly underpins the difficulty of moving a great idea or invention into an actual adoption of innovation so that it can have an impact. This move can be for an entrepreneur in cases so challenging, that it eventually never succeeds. Or as in the case of *subcase 3*, the enterprise 'has never made out of the entrepreneur's own kitchen'.

When it comes to innovation adoption of *subcase 4*, as the most important advancement described by the entrepreneur was introduction of a new distribution method as a move from selling the biologic meat packages exclusively on the enterprise's website to selling it to a broader range of other companies which offer it on their websites. This was described as allowing more consumers to reach the goat meat. There is a planned advancement of a new marketing method as the enterprise wants to improve the labels on its products, described as 'developing a better etiquette with a right information on it for the consumer'. Another big change and adoption of innovation for the enterprise has been the

establishment of their own network organisation, which groups numerous goat farmers together. With the establishment of this network, the enterprise's operation needed to be reorganized as the entrepreneur is now the person behind the logistics of the whole network, grouping around 40 farmers. The aspect of logistics also represents a planned aspect of enterprise's reorganization.

Although the three out of four enterprises seem to be actively advancing themselves and adopting innovation, the findings connecting the innovation adoption to the social capital presented in the network organisation are very limited. In neither of the cases a direct link could have been established between an innovation adoption as a result of the social capital's assets and recourses derived from the network organisation. Similarly, it was also very hard to establish an indirect link between the innovation adoption and the social capital of the network organisation, essentially questioning the overall existence of such link. The achievements as well as the planned advancements were considered to be exclusive credits of the enterprises, and so were assessed more as internal achievements of enterprise's efforts in which the network with its members did not play any role. There exist numerous possible explanations for this finding.

Firstly, the view of network's social capital not contributing to the enterprise's innovation could be reasoned with an inadequate structure of the network, presenting the structural social capital which scored very low in the findings on all subcases. The inadequate structure hinders the network organisation to be a source of an external knowledge, identified as a crucial determinant for enterprises' innovation. The structural properties of the network based on the findings do not offer sufficient opportunities for knowledge and information exchange. The identified properties of the network organisation, presenting a form of 'lead-governance' with a more 'weaker ties', as the entrepreneurs do not meet very often and relations between them are less intensive, and embedding a something as a hybrid between homogenous and heterogenous knowledge, seem not to be adequate for the knowledge diffusion among the network's members. Aligning, the acquisition capacity of the interviewed entrepreneurs was in three subcases assigned adverse values, indicating that they cannot locate and acquire valuable knowledge resources form social capital of the network, since the network does not offer them with such resources. And so, if the network's social capital does not offer any knowledge resources, or offers only very limited ones, there is nothing which be utilized by the entrepreneurs in this regard and transferred into innovation.

Elaborating on the unsatisfactory structural social capital, although the findings on the network's supporting of the cooperation between its members were mixed, with some entrepreneurs implying this to be a very strong point of the network, this does not seem to be enough as the collaboration alone is not a direct precondition for innovation. When connecting networks and innovation, the aspect of

networks' configuration plays a crucial role as it essentially represent the possibilities for an accessibility of new knowledge and information resources. And so, when the structural social capital is present with such low scores as the findings disclose, no wonder that it cannot be connected with the innovation adoption which is then seen as individual achievements of the enterprises. In other words, when there is such a limited link between the entrepreneurs and other network's members, they simply cannot connect their own innovation as an aftereffect of something broader connected to their participation in the network.

Secondly, when the network with its members is not considered as a valuable source of information and knowledge resources, this insufficiency could be still potentially supplemented through connectivity and network ties. Meaning, that the if the direct ties between the network's members are not considered to offer valuable knowledge resources for an entrepreneur, it could still help the entrepreneur to reach other people/organisations which may possess such valuable resources through the direct ties presenting the network's members. However, this in a likewise manner does not seem to function very well, as only in one subcase the facet of network ties was considered relevant. As such one entrepreneur approved that he was able to expand his connection through the network's members and that these were beneficial for him. However, not even this allowed the entrepreneur to establish any kind of link between the enterprise's innovation and the network, suggesting that these connections although might have been beneficial for the entrepreneur, but most likely not in connection to innovation. And so, when broadly assessing that the concept of social capital is 'all about connections', if the network organisation does not offer the enterprises more and/or beneficial connection for their advancement and innovation, it explains why the interviewed entrepreneurs could not establish a link between the social capital of the network and their adopted innovation.

Another possible explanation could be, that according to the findings the network organisation represents for the entrepreneurs mainly source of the cognitive social capital, which could be discussed as the dimension of social capital contributing to the innovation the least. Zheng (2010) in his summary of numerous findings compared the individual dimensions and labelled the cognitive dimension as the least contributing to the innovation when compared to the other two dimensions. Although this could be influenced by the scarcity of research connecting the cognitive dimension and innovation, it may still question the potential of the cognitive dimension to be transferred into innovation. Being embodied in attributes of shared language, codes and shared narrative, the cognitive dimension is believed to facilitate the communication in a network but does not necessarily need to do so. As a matter of fact, in a case of present and intensive cognitive dimension in a group or a network, as it embodies a form of organised knowledge about a given concept, it may hinder an actor's enthusiasm of sharing information connected to the topic of the organised knowledge as the actor may expect the other actor to already

possess the information in a same way, and so there may seem to be no need to discuss things further. The other two dimensions of social capital, structural and relational, which scored considerably lower in the findings of this research, are examined as influencing and supporting innovation more.

The social enterprises analysed in this thesis are viewed as original, all having their distinct concept and identity, highlighted numerous times by the interviewed entrepreneurs. Identifying themselves with the other members and network as a whole only in a limited manner, and all being proud about their enterprise's advancements as their own achievements, can serve as other aspects potentially explaining why it was not able to establish a direct or indirect link between the enterprises' innovation adoptions and the social capital of the network organisation. Although, findings on the knowledge absorptive capacity suggest that in some subcases the network organisation was helpful and influenced the individual enterprise in a certain way, this influence was not sufficient for the entrepreneur to connect the network and its members with the achievements of the enterprise.

Another potential explanation can be the a rather low scoring of the enterprise's overall knowledge absorptive capacity. Playing a moderating role between the assets of social capital and the adoption of innovation, the low score of the knowledge absorptive capacity may be considered as a meaningful barrier, hindering the connection between the social capital embodied in the network and the enterprise's adoption of innovation. Since the knowledge resources coming from the network need to first pass through the knowledge absorptive capacity of an enterprise before the enterprise can utilize and forward them to the innovation adoption, the non-presence and/or weakness of the capacity in some subcases may have affected their ability to gain something from the network. Building on the findings, all subcases showed at least one dimension of the potential or realized capacity not being present or not functioning well and so serving as barrier in their abilities to utilize the knowledge resources which the network offers. In connection to the knowledge absorptive capacity, it is important to highlight the significance of general enterprise's motivation towards the network and the willingness of the enterprise to utilize the opportunities which the network offers. Particularly, in the Subcase 4 the low commitment and enthusiasm for the network by the entrepreneur can be summarized in a quote: *'I have never visited the meetings or events because I wouldn't have gained anything...it would just cost be a couple of hours and tens of euros for the train'*. The general motivation of the entrepreneur in learning and gaining new information for the enterprise's advancement, can be questioned. There was no added value seen by the entrepreneur in the network's participation underlined with a belief that maybe it would helped him to get to know some people, but he would have met them eventually anyways *'because at the end they all move sort of in the same circles and events'*. The non-active participation of the entrepreneur as he himself admitted did not help him to see the added value of the network organisation and the social capital it presents, as *'standing on a side lines or not going to the*

events never helps'. In this case the overall low motivation and the mindset of the entrepreneur regarding the network are interlinked, and most likely affected the low score of the enterprise's knowledge absorptive capacity.

Another reason for the finding could be the fact of the network organisation being essentially very young, operating by the time of this writing only somewhat over a year. Moreover, not all enterprises participated in the network since the beginning of its establishment, joining later on and so their time in the network is (was) even shorter. As the network organisation is so young, essentially still in its starting phase, there are naturally other formalities and aspects to settle first before the network can develop and establish more opportunities and room for knowledge sharing and facilitation of its members' advancement. It was clear from the interview with the representative MVO project employee that improvements in the collaboration and sharing among the members is something which is being currently worked on. It is believed, also from the side of the entrepreneurs that the network has more potential in this regard which has so far not been used to the members' satisfaction. And so, perhaps if the research would be conducted again in a year or so, the findings would turn out to be different as the network could improve itself in the time in this matter.

Last but not least, an apparent explanation for the findings is that the stimulation of the enterprises' innovation does not represent a core ambition of the network. The main intentions behind the network's establishment were classified as representative purposes, provision of a platform which allows collaboration, and facilitation of the enterprises' commercial interests. The stimulation of innovation adoption is thereof not a direct ambition of the platform, although since the overall network's aims are to help its members to endure, to advance themselves and so to be successful social enterprises which can produce a larger impact on 'fighting of' the food waste issue, the innovation stimulation is considered to be a 'hidden objective' of the network, essentially incorporated into its primary intentions. In a like manner, although innovation is crucial for the enterprises' survival, it is not their main aim of existence. The analysed enterprises are primarily 'social enterprises' with a social goal being at their core, and they genuinely do not label themselves as 'innovative enterprises' or anything in a like manner and so the innovation adoption is not their main target either.

6. Conclusion and Discussion

Proceeding to the concluding part of this thesis, the analysis focuses on one hand on the distinctiveness of each subcase, providing descriptions and illustration of the conceptual relationships at work (analysis of the findings from the perspective of each subcase can be found in the appendix). On the other hand, a systematic attention was given to the differences between the individual subcases, identifying and

illustrating the areas of convergence and divergence between the nested subcases. The previous chapter discussed the limited findings on connecting the innovation adoption to the social capital of the network organisation and the following chapter aims to provide an answer to the main research question. Lastly, a brief scientific and societal discussions on the findings of the research are outlined, concluding with a chapter on limitations and suggestions for a future research.

6.1. Answering the research question

Proceeding to the answering of the main research question of this thesis, as: *In what ways does the social capital of the network organisation influences social enterprises' adoption of innovation and what is the role of their knowledge absorptive capacities in this regard?*, the answer is that the social capital of the network organisation does not influence the adoption of innovation of the analysed enterprises. Although some links between the social capital embedded in the *Verspilling is Verrukkelijk* and the enterprises performances can be found, no link between the social capital and the enterprises' innovation adoption was established as none of the entrepreneurs provided a sufficient example or a case when the network organisation was beneficial for the innovation of their enterprises. The links which can be observed from the findings present a more 'modest outcomes', described later, which the social capital of the network organisation has on the participating enterprises. However, neither of the subcases perceived the network's social capital as an innovation-inducing factor. Mainly, since the network organisation with its members did not offer the subcases with valuable external knowledge resources which could have been used by the entrepreneurs to enhance their innovation. As such, it can be concluded that the network's social capital impact on innovation for the analysed subcases is by the time of the research absent.

The interviewed entrepreneurs did not dismiss the importance of connections for their enterprises. However, they all have and exploit their own connections, meaning that the social capital, offering valuable external knowledge used for advancing of their enterprises, does not primary originate in the network organisation. *Entrepreneur 3* considered another network organisation which the enterprise is part of to be more beneficial, advancing their enterprise and its innovation adoption more. For the *subcase 2* reason seemed to be mainly that the production location of the enterprise is in Kenya, assessed as 'there it is all really happening', and so the entrepreneur's social capital, presenting the 'Kenyan connections', was considered as having more meaningful impact on the enterprise's development. The *subcase 1* with several innovation adoptions identified, is considerably large and rather advanced and so the 'internal social capital', meaning the employees and people involved with the enterprise, present a network on its own within which the changes and enterprise's advancements are being discussed. For the *subcase 3*, no innovation adoption could have been discussed, but the entrepreneur was rather proud about his own 'network of connections'.

Only one entrepreneur affirmed that the network organisation has expanded his connection base and that these were particularly valuable for the enterprise, but mainly for the enterprise's sale and emotional support of the entrepreneur. And so, the connections were not considered to be helpful or used for enterprise's innovation. The social capital which the *Verspilling is Verrukkelijk* offers is utilized and used by the analysed enterprises for other purposes. And so, if slightly broadening up the research question and exploring the first identified objective of this research as 'in what ways does the network organisation influence the individual social enterprises participating in the network', the outcomes are diversified.

The network organisation is a valuable source of/for: (i) enterprises representation, offering an umbrella which can be more easily identified by retailers as well as consumers (ii) allowing presentation on various events and food fairs (iii) facilitating collaborative actions with beneficial outcomes, with the most obvious example being the joint achievement of the permanent shelf in a supermarket offering the enterprises' products (iv) aligned with the collaborative outcomes, facilitation of common market development, with example of the 'Christmas packages', which altogether allow the enterprises to increase their sales and so to meet better their commercial interests (v) seeing the achieved benefits of the previously described aspects, which enhance the ambition to delve deeper into the common market development in form of shared investing and search for shared investors (vi) assembling 'like-minded individuals' who trust each other, share common norms and 'cultural base' which bridges them together while striving towards the same goal, sharing a narrative of 'fighting the food waste together' and so offering the entrepreneurs a source of common grounds and support, energising and affirming them that the goal which their enterprise is aiming to achieve is important (vii) in a like manner, providing the entrepreneurs with motivation and determination to continue doing what they do and to do 'more and better' as some of the network's members are more advanced and so serve as motivational force for others (viii) offering the entrepreneurs a basis and room for reflection on what makes their enterprise distinct, by which means is their individual story and brand original, and differently also what makes them unified with the other members (ix) provides the enterprises with support and help from the MVO Nederland, which in cases provides the network with financial support also (x) offers benefits from the fact of the network organisation being part of the MVO Nederland, providing the members with better presentation, as well as other benefits and opportunities, such as a wider networking options.

The outlined outcomes, although not directly connected to innovation, demonstrate meaningful ways of how the enterprises can benefit with their participation in the network. Elaborating on the identified outcomes, the proposition of the Nahapiet and Ghoshal (1998) that networks as a source of social capital grant access to valuable resources which cannot be reached (or could be but with much more efforts) by the non-members of the network, seemed to be accurate and affirmed with the broader

findings of this research. When considering the individual dimensions of social capital, some aspects of the outlined outcomes characterize the relational dimension of social capital, but predominantly are derived from the cognitive dimension, reaching the highest score in comparison to the other two dimensions. Referring to the shared representation, interpretation and system of meaning among the network's members, the cognitive dimension embedded in network organisation is the most influential, offering the most relevant assets for its members, and so represent the network's strong point which can be further taken advantage of. The two enterprises which are still active members, utilize the social capital which the network presents to 'unlock' and gain access to beneficial resources for them. The *Subcase 2* appears to be indeed at least partially using the social capital as a 'key' to broaden its ego network size with 'like-minded' individuals' who support the advancement of the enterprise and provide the entrepreneur with 'feeling of common grounds' concerning the shared narrative and common vision. In connection to the *Subcase 1* the social capital seems to be used mainly for stronger interpretation of objectives lying at the core of enterprises profile. The fact of two enterprises leaving the network organisation, could disapprove the Nahapiet and Ghoshal's (1998) proposition and the analysed network being a source of social capital and granting access to valuable resources for their enterprises. One could question the entrepreneurs' decisions to leave the network precisely based on them not being able to reach any valuable resources from the social capital offered. However, as a counterargument for this, the importance of the enterprise's knowledge absorptive capacity should be highlighted.

The knowledge absorptive capacity was expected to explain the potential differences between the subcases. Based on the findings and previously outlined outcomes, the social capital of the network organisation does offer its members with resources, but their utilization is depended on the enterprises' commitment and willing to invest (e.g. their time and energy) to be able to gain these resources from the network. In the two subcases of no longer participating enterprises the knowledge absorptive capacity indeed seemed to be a barrier hindering the enterprises abilities to utilize resources offered by the virtue of the network organisation. In the *subcase 4* assimilation dimension was a challenging aspect for the entrepreneur, as he was not able to fully understand the information shared within the network. The overall low potential absorptive capacity hindered the leverage to and presence of the enterprise's realized absorptive capacity. The entrepreneur revealed not a very active engagement in the network. He did not seem to remember the names of the other enterprises participating in the network, and due to the lack of time did not attend in person any of the network's face-to-face meetings. Similarly, the entrepreneur did not show much interest in the skype calls and also affirmed that he did not like and made a use of the WhatsApp chat. And so, showing a considerable low commitment and interests in the network, even when still being an active member, the absence of the enterprise's beneficial gains from

the network are not very surprising. The *subcase 3* could be assessed somewhat similarly, highlighting the importance of the knowledge absorptive capacity and mainly the overall motivation of the entrepreneur in gaining beneficial resources from the network organisation. As in the *subcase 4*, the *entrepreneur 3* did not participate in the network's meetings. He did not take part in the skype calls and neither had been active in the group chat. The acquisition dimension of the enterprise's absorptive capacity was considered as highly problematic with entrepreneur's firm disapproval of being able to identify and acquire any valuable knowledge and/or information from the platform. On the other hand, this finding is not surprising as the entrepreneur with his lack of commitment genuinely did not even try to identify and acquire valuable knowledge and/or information.

Summarizing, the knowledge absorptive capacity does play a role in the entrepreneurs' assessment of the network's social capital influence on their enterprise and of the overall benefits which their participation in the network offers them. In this research, the knowledge absorptive capacity plays only a marginal role for the enterprise's adoption of innovation achieved through the network organisation, since the network organisation is not valuable for the innovation of the analysed enterprises.

6.2. Scientific discussion

This thesis contributes to the scientific discussions concerning food waste, by introducing social enterprises with a distinct way of dealing with the problem. The research enriches the immense body of literature on networks (Popp et al. 2013), such as in a way of analysing the network organisation in a form of social capital. Being an empirical case study, it adds to the scarcity of the studies on networks and entrepreneurship (Folmer, Nederveen and Schutjens, 2018:471).

Findings of this research misrepresent social capital as an innovation-inducing factor suggested by Zheng (2010), as no link was established between the social capital of the network organisation and enterprises' adoption of innovation. In regard to the social capital, the findings offer some interesting insights concerning the individual dimensions, adding to the debate on social capital dimensions and their affiliated facets as introduced by Nahapiet and Ghoshal (1998). By analysing the dimensions separately in practice, the thesis shows that although the individual dimensions with their facets are interrelated, they are simultaneously distinct and all relevant to study separately also.

The research findings do not support the findings of Kittikunchotiwut (2015), whose results indicate that only two dimensions of social capital have a positive impact on absorptive capacity - the relational and the cognitive dimensions. Kittikunchotiwut (2015) proposes both dimensions as having significant positive impact on the absorptive capacity, and the absorptive capacity subsequently having a significant positive impact on organizational innovation. In this research, the knowledge absorptive capacity scored rather low, while the relational and cognitive dimensions scored higher when compared to the

structural dimension of social capital. As such, the findings of this research indicate the very opposite insights than the Kittikunchotiwut (2015) research findings.

Differently, the findings of this thesis support the summarized findings of Zheng (2010), underpinning the structural component of the social capital as the dimension with the most significant impact on innovation. The structural dimension in this research scored the least and no link between the social capital and adoption of innovation could have been established.

The insights of this thesis can endorse research of Tsai and Ghoshal (1998) who examined the relationships between the three dimensions of the social capital. The authors could not find a significant relationship between the structural capital (in their case presented by social interactions) and cognitive social capital (presented by shared vision). As their study focused on the interunit relationships within a single firm, they suggest that different organisational units may embrace same values and visions even when they do not have strong interactions. In the case of this thesis, the cognitive social capital was considered as the 'most relevant' dimension, with the shared narrative and vision scoring high in all subcases. Concurrently, the interactions between the participating enterprises in the network organisation were not very strong, presenting more 'weaker ties' with the entrepreneurs not meeting that often. And so, the insights correspond with the findings of Tsai and Ghoshal (1998). Furthermore, the insight could lead to questioning of the cognitive dimension, when being present without the other two dimensions, as a dimension stimulating knowledge exchange and innovation.

Aligning, the research supports the discussion of Anderson et al. (2007) on social capital being a social relational artefact produced in interactions. The limited interactions between the network's members, influenced the entrepreneurs' opinions on the network organisation being only a marginal source of social capital. Hence, one of the primary suggestions for the network organisation is the stimulation of more interactions between the network's members.

The findings highlight the importance of the absorptive capacity for innovation, with modest scores on the knowledge absorptive capacities in all subcases and indeed no connection between the innovation adoption and the network organisation. The genuinely low scores on the knowledge absorptive capacity supports the scientific debate (Powell, Koput, and Doerr, 1996; Lichtenthaler, 2009 in Kittikunchotiwut 2015) on the importance of absorptive capacity, when considered as having a determining role in organisation's ability to exploit new external knowledge. Moreover, the insights on the importance of not only the knowledge absorptive capacity but also the overall motivation of the entrepreneurs in gaining new beneficial resources from the network organisation, could support the conceptualisation of absorptive capacity as proposed by Minbaeva et al. (2014). The authors suggest conceptualisation of absorptive capacity as comprised of ability and motivation. Stressing not only the ability to utilize

absorbed external knowledge, but also the importance of motivation as level of 'organizational aspiration' characterized by the organization's innovation efforts (Minbaeva et al. 2014:41), corresponds well with the insights of the thesis's findings.

When commenting on the constructed conceptual model and the relations between its concepts, the findings falsify the applicability of the model in the particularly analysed subcases. It was not possible to identify the predicted relationship between the social capital embedded in the network organisation and the innovation adoption of the individual enterprises. It could be noted that the overall aim of the research, from which the conceptual model and the main research questions were derived, was maybe a bit too ambitious, at least inappropriately constructed for the chosen network organisation being the case study of this thesis. Considering a more modest outcomes which the network organisation seems to provide to its members, the conceptualisation of 'innovation adoption' could have been constructed differently, presenting a more modest ambition also. For instance, the research could have been constructed in a way to assess 'learning outcomes' instead of an 'innovation adoption', which could be considered a step before the innovation adoption and believed to be better applicable for the gathered findings. A distinction could have been made between organisational learning (learning of the individual enterprises) and a network learning (in a way of the network's 'common achievements' and outcomes).

6.3. Societal discussion

One of the thesis's societal relevance identified earlier was an increase of the visibility of the social enterprises whose existence demonstrates the issue of food waste as well as potential ways how to deal with this issue. Although the network's enterprises are labelled as social and the entrepreneurs identify themselves in a likewise manner, their economic objectives should be highlighted. They seem to somehow fit better within the US&UK *third sector* tradition, essentially being 'businesses' with aim to deal with a social problem while generating a profit for their owners. The importance of the enterprises in placing the attention to the food waste issue shall not be underestimated, as well as their meaningful role in highlighting the problem for an ordinary consumer. However, when broadening the discussion on the food waste problem at the stake, the enterprises being a solution to the problem can be disputable. When recalling a discussion with prof. Mindi Schneider, a development sociologist with specialization in global food politics with an expertise in several projects around questions of waste, the resolution of such complex and worldwide issue of food waste does not have a simple solution but requires similarly complex and broadened ways of dealing with it. The opinion on such enterprises as 'having a solution to the problem' can be then seen more sceptically, essentially due to their 'business' character and food waste being a fundament essence needed for their existence.

As Klijn and Koppenjan (2016) point out, evaluation of networks is a rather challenging task, offering a vivid discussion and different perceptions on how to assess network's performance and generated outcomes. As these do not present the objectives of this thesis, when only broadly assessing the profile of the analysed network organisation, a brief summary of its main strength and weaknesses can be given. The main strength of the network seems to be its representation abilities, offering shared interpretation and system of meanings. Although not directly connected with innovation, there exist numerous benefits provided to the participating enterprises, outlined in the previous chapter of this thesis, presenting the identified primary strengths of the network. The weaker points are mainly the network's structural properties, which could be assigned to the inappropriate network structure and a tension between inclusiveness versus efficiency and effectiveness of the network, hindering the meeting of its broader objectives. A set of recommendations for the network organisation, presenting the internal focus on improvements within the network itself are outlined in the table n. 8. A set of additional recommendations on the external focus of the network can be found in the appendix (table n. 13.).

The societal discussion in connection to the topic of this thesis could also touch upon the idea of network organisations, and so grouping of different actors together, being an ideal way of how to deal with wicked problems. According to the view of the representative MVO Project employee, grouping of actors together is an effective way of achieving challenging goals, but only when such collaboration is happening on a lower, '*more specific field*'. If the purpose behind the actors' grouping into a network is too generic, its creation most likely won't speed up the problem's resolution. In the case of the network organisation analysed in this thesis, it could be debatable whether the focus on 'dealing with food waste' is too generic, or if the grouping of only several social enterprises primarily with an 'upcycling' way of dealing with food waste is an appropriable narrowing down of the overall generic focus. The shared objective and vision of 'fighting the food waste together' proved to be a strong point of the analysed network. Being a societal challenge, which stimulated the entrepreneurs to participate in the network at the first place, this strong point of the network could serve as an example and inspiration of how to possibly highlight another wicked challenge or problem and create a network of actors with a shared a concern and interest for these. And so, primarily help to advance the actors dealing with the wicked challenge/problem while simultaneously enabling them to stress the issue of their interest better externally.

Table 8: Internal recommendations for the network organisation

Internal recommendations for the network organisation	
Improvement of the network's structure	<i>The adjustment of the network's structural properties could be based on the wishes/needs and preferences of the participating members. As such a simple questionnaire could be distributed among the members to find out what they like/dislike on the current structure and network's operation, and accordingly try to apply compromises.</i>
Stimulation of more interaction between the network's members	<i>More frequent meetings, skype sessions as well as personal meetings, organised for the members can strengthen the relations between them, improve the overall image of the network and its beneficial character and similarly increase the actual and potential resources available through and derived from the member's relations. The interaction between the members is crucial, as the available social capital is embedded not only in the network organisation itself, but also in the interactions it triggers. And so, by increasing the interaction between the members, the assets of social capital and its resources offered for the members can increase also.</i>
Improvement of the quality of the interaction processes and communication between the members	<i>Not only the number of interactions is important, but also the quality of the meetings and skype sessions when members interact. The quality of such processes should be similarly as its frequency improved and should be done so based on the member's preferences. Some suggested an improvement of the network's communication patterns, which can be a starting point with which the series of improvements could take off. By improving the quality of the interaction processes, the degree to which the members realise their interdependencies can intensify, following a shift from more go-alone strategies, identified to be present by some members, towards collaboration and joint strategies of the network as a whole.</i>
Strengthening of the commitment rules and establishment of a 'sanction system' in cases of their breach	<i>Only when all members are participating on equal basis, will the members be truly committed to the network's goals and objectives. The lack of motivation and commitment to the network's purposes is a critical element which seem to significantly hinder the networks potential. It has been considered as currently being 'worked on' to improve. With an improvement of the commitment rules, it should be also thought about clear consequences for the members in a case they do not follow the rules. Such form of 'sanctions', simply making the members accountable for their actions/non-actions in the network, can improve the overall image of the network and belief, which was genuinely shared in the interviews, that some members simply do not follow any rules, have no contributions to the network and just benefit from it. It should be noted that such 'sanction system' could lead a departure of the network organisation by some members. However, in line with these the following recommendation should be considered.</i>
Realize the trade-off between efficiency vs. inclusiveness	<i>It is important to realize a trade of between efficiency (and more broadly also effectiveness as accomplishing of the network's purposes) vs. inclusiveness. Building a collaboration is generally seldom an efficient endeavour. To build a collaboration, the motivation from the members is crucial, as the more they are involved in the network organisation, the more time consuming and resource intensive their participation tend to be. Although members can be very enthusiastic about their involvement at the beginning during the earlier stages of the network evolution, as Provan and Kenis (2007) describe, a members' 'burn-out' can occur as their participation in the network comes with expectations which increases a toll on their time and energies. A likely outcome then is, and also something which could be discussed as a current stage of the analysed network organisation, that a small number of participants may end up doing most of the work and network's activities, producing a drop in the enthusiasm about a network and increased level of frustration. To prevent this from happening and to increase the network's efficiency and effectiveness, the level of network inclusiveness could be reconsidered (meaning also the current members, which number could be reduced simply because the members does not seem to be motivated to stay and comply to the network's rules). It is understood that the network is very open and flexible when it comes to new members joining the network also, where a better consideration and proof of a commitment by the newcomers could be applied.</i>
Encouragement of learning behaviour at the level of network	<i>By encouraging a learning behaviour on the level of the network, the members can arrive at more joint achievements and outcomes for which they mutually adjust their individual strategies. Realizing such common achievements not only motives the members to collaborate with others more, but also allow them to better deduce the connection between their individual achievements (such as their innovation adoption) and the network's role in it.</i>
Encourage more collaboration and knowledge sharing between the members	<i>The potential of network organisation going beyond the market and commercial purposes has been identified by the interviewed members. By improving of the network's structure which would stimulate more interactions between the members and so more opportunities for 'sharing', such greater potential could be more easily accomplished. In line with this, enabling better collaborative arrangements for learning and experimentation could be very beneficial in this regard. The 'sharing' between the members could be done in a more interactive and pleasant way in a form of a 'games', such as identifying a 'weekly/monthly challenge' which the entrepreneurs faced in connection to their enterprise. Their challenges could be then discussed with the other members. Such sharing with the others on a regular basis can be an easy, not very time-consuming activity (e.g. if the WhatsApp chat will be used for this purpose) and can connect the members better together. Identifying such challenges can be beneficial for members sharing the challenge (to frequently think about and realise where they have moved with their enterprise and what is the recent barrier they are facing), for the other members (in cases of sharing a similar challenge when they could help one another, or in a case another member has already successfully overcome the mentioned challenge and can share his story with others) as well as for the MVO Nederland (to keep being up-to-date with the participating entrepreneurs and identify better their present needs, challenges and ways how they could potentially help them with their overcoming).</i>
Keep enhancing the relationships between the members	<i>Some of the facets of the relational dimension of social capital are present and well developed in the network organisation. The others could be still strengthened and stimulated to improve. For instance, although the networks operation works on the basis of providing its members with enough space for their individual brands and stories, the strengthening of the shared identification with the other members – as all of them being social entrepreneurs aiming to achieve the same goal – could lead to stronger unification of the members, realizing their interdependencies and importance of collaboration.</i>
Build on the present and well-established assets of cognitive dimension of social capital	<i>The facets of the cognitive dimension of social capital reached the highest score and so proved to be the most influencing dimension embedded in the network organisation. The facets of the cognitive dimension can be highlighted to the network's members, and further build on to try to advance the other social capital dimensions. In particular, the relational dimension of social capital could be strengthened by stressing the shared facets of cognitive dimension, enhancing the relationships between the members and their commitment to the network organisation.</i>
Encourage stronger goal intertwinement among the members	<i>By encouraging stronger goal intertwinement around the well-established joint image on 'fighting the food waste together', a win-win solution of the collaboration can be better presented to the members (since their collaboration eventually realizes the objectives of them all). It can similarly reduce the go-alone strategies of members when they rather present themselves and act as individuals and not as a part of the network. Since the overall aim of all members is 'fighting' and reducing the amount of wasted food, by highlighting and strengthening the image of this goal intertwinement to the members, they could increase their willingness to always present and refer to the whole network, presenting and referring to the other members also (e.g. on different festivals, food fairs, etc.). Featuring the interactions and coordinated efforts as a way of not only achieving the network's main objective, but also member's individual goals, the members can better connect the benefits and importance of their interactions with others, increasing their commitment for greater participation.</i>
Identifying intermediate objectives and goals to be achieved by the network	<i>Having a common target to achieve, and not an individual on the level of the participating enterprises, can similarly stimulate the motivation and willingness to collaborate and contribute to the network's advancement. Setting up a set of common aims, which shall be identified by the members themselves as what they would like the network organisation to achieve on a 6 months basis, can improve the communication (by discussing their individual wishes concerning the network, drawing compromises and setting up the set of common aims, keeping discussing afterwards in what ways the common aims can be achieved and finally together evaluating the success of their results) and so also increase the frequency of interactions between the members. These could in a likewise improve the network's external image, building up their legitimacy as an efficient group of ambitious entrepreneurs who are capable of achieving common objectives for a greater good.</i>
For the enterprises: importance of working on their knowledge absorptive capacities	<i>Highlighting the importance of absorptive capacity, particularly for smaller organisations as the social enterprises participating in the network organisations are, as their abilities to keep up with external environment is crucial for their existence and development. The members may need an assistance in building their absorptive capacity, especially if the enterprise comprises only of the entrepreneur himself. The importance of the absorptive capacity in actively obtaining of the knowledge can be highlighted again, and in this regard also the need for enterprise's approaches and mechanisms to learn, disseminate and to exploit knowledge which can lead to more innovations.</i>

6.4. Limitations

Several aspects need to be discussed as limitations of this thesis. To start with, the findings refer to the four enterprises only, being the four subcases of this thesis, and so do not present overall findings applicable for all members of the network. As a matter of fact, it is expected that if subcases of this research presented other enterprises of the network, the findings and so the way in which the research question would be answered, would have been different. The selection process of the subcases did not proceed as planned. As such, the enterprises suggested by the MVO to be adequate for the aims of this research, as they were believed to create novelty and adopt several innovations precisely thanks to their participation in the network, did not present the subcases of the case study. Next, the national background of the researcher, not being Dutch, could be assessed as another aspect causing certain challenges and limiting the research. The researcher has had only a limited access to the data, since all the information shared by the MVO concerning the network organisation as well as by the entrepreneurs concerning their social enterprises were in Dutch. Narrowing down the focus of the study, might have caused certain restraints, as aspect which might have had a direct influence on the findings were neglected. Simultaneously, although narrowing down the scope, the research remained rather complex, presenting a combination of compound theoretical concepts into one conceptual model, causing a difficulty in finding and explaining the causality between the concepts at the stake.

Another limitation is the researcher's bias and operational choices. For instance, as some parts of the research depended solely on the researchers' discretion, such as coding of the data, there is a possibility of unintended mistakes. Moreover, also the information bias should be highlighted too, since the data were derived solely from the entrepreneurs themselves. The study itself is therefore rather subjective, tied to the analysed subcases and the network organisation, providing a rather limited external validity.

For instance, a subjective rating of innovation was applied, when the entrepreneurs themselves were asked to assess the innovation adoption of their enterprises. Thereof, it is difficult to demonstrate the data rigidity as entrepreneurs' individual perspectives present the foundation of the data. And since it is a natural feature of human minds that we tend to idealize certain things and remember them in a way we want to remember them, which is undoubtedly influenced by multiple contextual factors and can also vary in different time, the information provided by the entrepreneurs might have affected the validity of the data. As a matter of fact, this was observed during the second round of interviews when the entrepreneurs were asked to review the preliminary findings in connection to their subcase and some have altered their previously given answers. Triangulation of the data was applied to mitigate the subjective singular bias. Secondary data acquired through the desk research were used to validate the information gathered from the interviews with the entrepreneurs. Moreover, the information provided from the MVO project employee was similarly used to corroborate the authenticity of the findings.

As every research strategy has its advantages and disadvantages, the nested case study presented in this thesis has a weak capacity for generalization. Placing emphasis on 'intensiveness' rather 'extensiveness', to broaden up the findings and apply them on a larger scale is hardly approachable. Next, the distinction made between three dimensions of the social capital could be considered more of a theoretical tool, being hard to distinguish and compare in practice. The dimensions are undoubtedly interrelated, and so their clear disconnection from one another for the purposes of this thesis was a challenging task, which requires attention of further research. Based on the findings, particularly the cognitive dimension of social capital could receive more future research attention. In overall, the dimensions of social capital are interesting concepts, which could be applied and tested in numerous different ways. For instance, it could be exiting to analyse the strength and weaknesses of different network organisations by looking at the social capital dimensions at work. The conceptual framework of this research requires further testing, and so could be applied on the same network organisation in a couple of years or differently on another network organisation. However, the selecting procedure should be in such case more meticulous and place emphasis on a network organisation in which the stimulation of innovation plays a primary role.

Sources

- Anderson A., Park J. and Jack S. (2007). Entrepreneurial Social Capital: Conceptualizing Social Capital in New High-tech Firms. *International Small Business Journal* 25(3), 245-272.
- Andrews R. (2010). Organizational social capital, structure and performance. *Human relations* 63(5), 583–608.
- Bio Goat Meat. Retrieved on June 04 2019, from <https://www.biogoatmeat.nl/bio-goat-meat/>
- Bokken Bunker. Retrieved on June 04 2019, from <https://www.bokkenbunker.nl/waarom-zijn-er-bokjes->
- Bridge S., Murtagh B. and O’Neill K. (2009). Understanding the social economy and the third sector. Palgrave Macmillan.
- Burt R. S. (1997). The Contingent Value of Social Capital. *Administrative Science Quarterly* 42 (2), 339-36.
- Camisón C. and Forés B. (2010). The influence of knowledge absorptive capacity on shared value creation in social enterprises. *Journal of Knowledge Management* 21 (5), 1163-1182.
- Campos-Climent V. and Sanchis-Palacio J. R. (2017). The influence of knowledge absorptive capacity on shared value creation in social enterprises. *Journal of Knowledge Management* 21 (5), 1163-1182.
- Chengke Yu and Du Junshu (2013). A Literature Review of the Effects of Social Capital From the Personal Network Perspective. *International Journal of Business and Social Science* 4 (12) Special Issue, 251-259.
- Cohen W. M. and Levinthal D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly* 35 (1), 128-152.
- Creswell J. W. and Creswell J.D. (2018). Research Design. Qualitative, Quantitative & Mixed Method Approaches. Fifth edition, SAGE publishing.
- Duniam M. and Eversole R. (2016). Social enterprises in rural community governance: evidence from Tasmania. In: Edelenbos, J. & I.F. van Meerkerk (2016) (eds.), *Critical Reflections on Interactive Governance. Self-organization and participation in public governance*, (298-317). Cheltenham: Edward Elgar Publishing.
- European Commission (2019). Social Enterprises. Retrieved on April 08 2019, from http://ec.europa.eu/growth/sectors/social-economy/enterprises_en
- European Parliament News (2017): Food waste: the problem in the EU in numbers [infographic]. Retrieved on March 08 2019, from

<http://www.europarl.europa.eu/news/en/headlines/society/20170505STO73528/food-waste-the-problem-in-the-eu-in-numbers-infographic>

- Folmer E., Nederveen C. And Schutjens V. (2018). Network importance and use: commercial versus social enterprises. *Social Enterprise Journal*, Vol. 14 (4), 470-490.
- Ford J. D., Keskitalo E. C. H., Smith T., Pearce T., Berrang-Ford L., Duerden F. and Smit B. (2010). Case study and analogue methodologies in climate change vulnerability research. *John Wiley & Sons, Ltd.* 1 (10), 374-392.
- FUSIONS (2016). D3.5. Recommendations and guidelines for a common European food waste policy framework. *FUSIONS EU project on reducing food waste through social innovation*.
- Gilsing V. A. and Duysters G. M. (2008). Understanding novelty creation in exploration networks—Structural and relational embeddedness jointly considered. *Elsevier, Technovation* 28, 693–708.
- Glorious Bastards. Retrieved on June 04 2019, from <https://www.gloriousbastards.nl/>
- Habisch A. and Adai CH. R. L. (2013). ‘A Social Capital Approach Towards Social Innovation’ in Osburg T. and Schmidpeter R. (eds.), *Social Innovation. Solutions for a sustainable future*, (pp. 65-77). Springer, London.
- Jamali D., Yianni M. and Abdallah H. (2011). Strategic partnerships, social capital and innovation: accounting for social alliance innovation. *Business Ethics: A European Review* 20 (4), 375-391.
- Kittikunchotiwut P. (2015). The role of social capital on absorptive capacity and organizational innovation. *Journal of Business and Retail Management Research*, 27-39.
- Kittikunchotiwut P. (2018). Social capital as knowledge absorptive capacity and firm innovation. *Business & IT*, 13-25.
- Klijn E. H., Edelenbos J., Stein B. (2010). Trust in Governance Networks: Its Impacts on Outcomes. *Administration & Society* 4(2), 193-221.
- Klijn, E.H., Koppenjan J. (2016). *Governance Networks in the Public Sector*. Routledge, London and New York.
- McNabb D. E. (2002). *Research Methods in Public Administration and Nonprofit Management. Qualitative and Quantitative Approaches*. M.E. Sharpe, London.
- Minbaeva D., Pedersen T., Björkman I., Fey C. F. and Park H. J. (2014). MNC knowledge transfer, subsidiary absorptive capacity and HRM. *Journal of International Business Studies* 45, 38–51
- Moran P. (2005). Structural vs. relational embeddedness: social capital and managerial performance. *Strategic Management Journal* 26, 1129–1151.

- MVO Nederland. About us. Retrieved on April 03 2019, from <https://mvonederland.nl/english/about-us>
- MVO Nederland. News. Retrieved on June 03 2019, from <https://mvonederland.nl/nieuws/jumbo-wageningen-plaatst-schap-tegen-verspilling-samen-met-verspilling-verrukkelijk-2.6.2019>
- MVO Nederland. News: Ondernemen met impact. Retrieved on June 03 2019, from <https://mvonederland.nl/nieuws/ondernemers-lanceren-ambitieuus-platform-verspilling-verrukkelijk>
- MVO Nederland: Verspilling is Verrukkelijk. Comment from Mr. T. Timmermans, Retrieved on April 10 2019, from <https://mvonederland.nl/nieuws/ondernemers-lanceren-ambitieuus-platform-verspilling-verrukkelijk>
- Nahapiet J. and Ghoshal S. (1998). Social Capital, Intellectual Capital, and the Organizational. *The Academy of Management Review* 23 (2), 242-266.
- OECD (1999). Social Enterprises.
- Ofori D. & Sackey J. (2010) Assessing social capital for organisational performance: initial exploratory insights from Ghana. *Organizations and Market in emerging economies* 1 (2), 71-91.
- Osburg T (2012). 'Social Innovation to Drive Corporate Sustainability' in Osburg T. and Schmidpeter R. (eds.), *Social Innovation. Solutions for a sustainable future*, (pp. 13-23). Springer, London.
- Pérez-Luño A., Medina C. C., Lavado A. C. and Rodríguez G.C. (2011). How social capital and knowledge affect innovation. *Journal of Business Research* 64, 1369–1376.
- Popp, J., MacKean, G., Casebeer, A., Milward, H. B., Lindstrom, R. (2013). Inter-organizational networks: *A critical review of the literature to Inform practice*.
- Provan K. G., Kenis P. (2007). Modes of Network Governance: Structure, Management, and Effectiveness. *Journal of Public Administration Research and Theory* (18), 229-252.
- Ruef M. (2002). Strong ties, weak ties and islands: structural and cultural predictors of organizational innovation. *Industrial and Corporate Change* 11 (3), 427–449.
- Schöning M. (2013). 'Social Entrepreneurs as Main Drivers of Social Innovation' in Osburg T. and Schmidpeter R. (eds.), *Social Innovation. Solutions for a sustainable future*, (pp. 111-119). Springer, London.
- S.-h. Liao, W.-Ch. Fei and Ch.-Ch. Chen (2007). Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge-intensive industries. *Journal of Information Science* 33 (3), 340–359

- Sørensen, E., & Torfing, J. (2011). Enhancing Collaborative Innovation in the Public Sector. *Administration & Society*, 43(8), 842-868.
- Spithoven A., Clarysse B. and Knockaert M. (2010). Building absorptive capacity to organise inbound open innovation in traditional industries. *Technovation* 30, 130-141
- Szymanska A. and Jegers M. (2016). Modeling Social Enterprise. *Annals of Public and Cooperative Economics* 87(4), 501-527
- The Ketchup Project. Retrieved on June 04 2019, from <https://theketchupproject.nl/about/>
- Thomas G. (2011). A Typology for the Case Study in Social Science Following a Review of Definition, Discourse, and Structure,. *Qualitative Inquiry* 17(6), 511 –521.
- Three-sixty. Info. Retrieved on June 03 2019, from <https://www.three-sixty.info/why-three-sixty>
- Trivedi C. and Stokols D. (2011). Social enterprises and corporate enterprises: fundamental differences and defining features. *Journal of Entrepreneurship* 20 (1), 1-32
- Tsai W. and Ghoshal S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal* 41(4), 464-476
- United Nations (2019). Sustainable development goals. Retrieved on April 08 2019, from <https://www-un-org.eur.idm.oclc.org/sustainabledevelopment/sustainable-consumption-production/>
- Urban B. and Gaffurini E. (2017). Organisational learning capabilities as determinants of social innovation: An empirical study in South Africa. *SA Journal of Human Resource Management*, 1-10.
- Van Meerkerk I., Kleinhans R. and Molenveld A. (2018). Exploring the durability of community enterprises: A qualitative comparative analysis. *Public Administration*, 1–17.
- Verspilling is Verrukkelijk. Retrieved on April 03, 2019, from <https://verspillingisverrukkelijk.nl/>
- Verspilling is Verrukkelijk: Verrukkelijke Spelregels.pdf, Retrieved from <https://verspillingisverrukkelijk.nl/>
- Yin R. K. (2003). Case study research design and methods. Third Edition, Sage Publications.
- Y.-S. Chen, M.-J. James Lin, Ch.-H. Chang (2009). The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets. *Industrial Marketing Management* 38, 152–158.
- Zheng W. (2010). A Social Capital Perspective of Innovation from Individuals to Nations: Where is Empirical Literature Directing Us?. *International Journal of Management Reviews*, 151-183.

Appendix

Figure 8: Dimensions of social capital by Nahapiet J. and Ghoshal S. (1998)

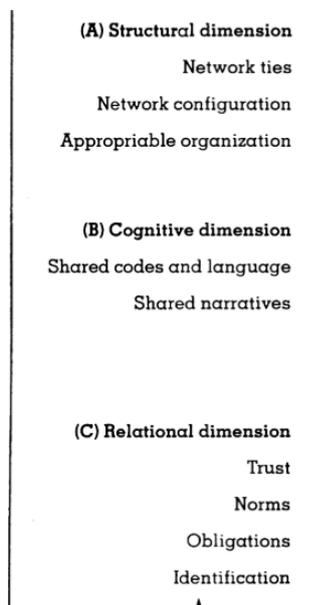


Table 9: Members of the Verspilling is Verrukkelijk

Name of the social enterprise	Way of dealing with food waste	Website
<i>Instock</i>	Waste from supermarkets (e.g. Alberth heijn) -> Beer, granola & serving restaurants (utrecht, amsterdam, the Hague)	https://www.instock.nl/en/contact/
<i>Thijsthee</i>	Wholesalers, growers - > ice-tea	http://www.thijsthee.n
<i>Betuwse Krenkelaar</i>	Wasted apples ->apple ciders, apple sparkle	https://www.defruitmotor.nl/contact
<i>The bokkenbunker</i>	Organic goat farm	https://www.bokkenbunker.nl/contact/

<i>Kromkommer</i>	Waste ->Soups	https://www.kromkommer.com/contact/
<i>Souपालicious</i>	Waste from retail -> soups for Dutch food banks (e.g. Eindhoven food bank serves all soups from them)	http://souपालicious.nl/contact/
<i>Glorious bastards</i>	Waste ->soup, ketchup, chutney	https://www.gloriousbastards.nl/contact
<i>AND Cheestrade</i>	Old cheese->Re- cheesed cheese and delicious spread-it	https://www.andcheestrade.nl/contact/
<i>GRO</i>	Coffee grounds- >oyster mushroom snacks	https://gro-together.com/contact-us/
<i>The Verspillingsfabriek</i>	Waste ->soups and sauces	https://deverspillingsfabriek.nl/nl/contact
<i>Coco Conserven</i>	Canning products from surpluses and residual flows	http://www.cococonserven.nl/contact/
<i>Yespers</i>	Waste->granola, spreads	https://yespers.com/new-index#contact-1
<i>Potverdorie</i>	Waste -> Jams, chutneys, salsas	http://potverdorie.nl/eindejaarspakket-verspilling-is-verrukkelijk/
<i>Twisted jams</i>	Waste ->jams and chutneys	http://www.twistedjams.nl/contact/
<i>De tweede jeugd</i>	Leftovers from bakers - > toasties, croutons, crostini, bread soldiers	http://www.detweedejeugd.nl/contactmaken

<i>Beeblue</i>	Organic residual flow - http://www.wearebeeblue.com/ >beer and soaps
<i>De lekkere man</i>	Charcuterie from https://www.delekkereman.nl/ rooster, goat and bull as ,unwanted man'
<i>The ketchup project</i>	Wasted tomatoes - https://theketchupproject.nl/contact/ >ketchup from dried tomatoes

Table 10: Subcases of the nested case study

<i>Fictive name of the social enterprise</i>	Way of dealing with food waste	Interviewee
Subcase 1	Wasted/unwanted vegetables ->soups, ketchup	Entrepreneur 1a Entrepreneur 1b
Subcase 2	Wasted tomatoes from Kenya ->ketchup	Entrepreneur 2
Subcase 3	Waste ->soup, ketchup, chutney -endures no longer	Entrepreneur 3
Subcase 4	Organic goat farm, organic goat meat -no longer active member	Entrepreneur 4

Interview guide universal (questions adopted for each subcase, e.g. referring to the name of the social enterprise and not 'the enterprise'):

When referring to you/your view, your motivation, experience, etc. I would kindly like to ask you to speak for the enterprise, as such please try to answer from the perspective of the enterprise as a whole.

Intro:

How would you describe with your own words the Verspilling is Verrukelijk platform?

How often do you meet with the other members of the platform?

....

Questions on social capital:

Structural:

NETWORK TIES:

1. Has the platform Verspillig is Verrukelijk increased the number of your 'connections'? Either direct connections, meaning the other entrepreneurs and members of the Verspillig is Verrukelijk, or indirect ('friends of a friends type'). Generally, were these connections useful for you?

NETWORK CONFIGURATION:

1. In general, do you consider the Verspillig is Verrukelijk network's structure to be adequate for the overall purposes of the platform? (e.g. is it transparent enough? (such as for network's non-member but still involved with food waste); is it flexible enough (such as for the information to flow, new members to join, etc.))

2. Has the network's structure stimulated cooperation between you and other members? Has it provided you with opportunities for learning, exchanging of the knowledge with other enterprises?

3. What is in your view the position of MVO in the platform? Is it maybe different now than it was during the platform's establishment?

4. Is there any member who would you consider as a 'leading enterprise' in the platform?

APPROPRIABLE ORGANISATION:

1. Verspillig is Verrukelijk has been created to support and enable growth of the Dutch entrepreneurs tackling food waste, establishing a joint alliance of them. Can you maybe think of a situation when this platform has been used (by you or other member) for other purposes?

2. Have you ever 'brought in' your personal connection into the network (they might have been useful for another member) or can you think of a situation when any other member have done so?

Relational:

Generally, would you say that the relationships with other members of the platform are more personal or impersonal?

TRUST:

1. Do you feel like the other members of the platform take your interest into account?

2. Genuinely, do you have trust in the other members of the platform? Do you think that any of them could ever misused your trust and act in a way which could cause a harm on your enterprise?

Have you ever felt a sense of competitiveness between the platform's members?

NORMS:

1. Can you identify any norms which you share with other Verspillig is Verrukelijk members?

OBLIGATIONS AND EXPECTATIONS:

1. (hypothetical) In a case you share something with the other members (e.g. your new recipe) do you expect them to share things in the same way with you?

2. Have you ever felt like you 'owe' something to another member?

IDENTIFICATION:

1. Do you identify yourself with Verspillig is Verrukelijk platform/other members?

Cognitive:

SHARED LANGUAGE AND CODES:

1. Does the Dutch language, which you share with the other members or the fact that you are all Dutch enterprises play any role in your willingness to communicate and share information with them? (/Do you see any importance in the fact that you are all Dutch enterprises and in the Dutch language?)
2. Can you identify any shared 'codes' which you have with the other members of Verspillingsfabriek?

SHARED NARRATIVE:

1. Does the shared narrative of food waste and the shared vision of tackling food waste motivate you to collaborate with other members more? Did it play any role in your willingness to join the platform at the first place?
2. Altogether, has the network strengthened your motivation to deal with food waste?

Questions on knowledge absorptive capacity

Potential:

ACQUISITION:

1. Have you ever been able to identify information and/or knowledge resources valuable for your enterprise from the platform?
2. Generally, are you motivated in learning and gaining more information and/or knowledge to advance the Verspillingsfabriek?

ASSIMILATION:

1. Have you been able to understand the information and/or knowledge which the platform and/or its members offer?
2. Was there any case when such information was too specific (e.g. context-specific like a scientific information) making it hard for you to understand it?

Realized:

TRANSFORMATION:

1. Have you been able to combine the information and/or knowledge from network and/or other network' s member with the information and/or knowledge which your enterprise already possess?
2. Have you ever found yourself in a situation when you felt like you should reconsider your information and/or knowledge because of the information and/or knowledge shared within the network?

EXPLOITATION:

1. Have you ever adjusted your enterprise (e.g. its operation, your products, etc.) based on the information and/or knowledge shared within the platform?
2. Has the network maybe reinforced innovation of your enterprise? If yes, what role has it played?

Questions on innovation

Can you think of an innovation which your enterprise has in the recent year adopted or intends to adopt in a near future?

Innovation is a vague term, used in multiple meanings and contexts, but it can be simple defined as a creation and adoption of something new that creates value for the organization that adopts it (Baldwin and Curley 2007 in Osburg T., 2013:14). I will ask you some guiding questions, which can help you when thinking of the possible

innovation adopted. However, feel free to talk about anything else which comes to your mind in connection to your enterprise and innovation adoption/implementation.

For instance, have you:

- introduced a new type of product/service in a local or regional market niche?
- introduced a new type of product/service in the national or international market niche?
- introduced a new production method?
- introduced a new distribution method?
- introduced a new marketing method?
- developed new supplier linkages?
- attempted to entry an unexploited market niche?
- reorganized the enterprises' operation and/or production?
- adopted any other innovation?

Questions on the enterprise

How old is the enterprise, when did you started?

When did you join the Verspilling is Verrukellijk? (When did you leave the platform and what were the main reasons for doing so?)

How many people are involved with your enterprise?

Questions on products...

....

Table 11: Summary of the findings and values assigned on the social capital

Variable	Dimension	Subcase 1	Subcase 2	Subcase 3	Subcase 4
Social capital	Structural	-1	1	-6	-2
	Score of structural social capital (out of 10/-10)				
	Relational	1	4	1	2
	Score relational social capital (out of 10/-10)				
	Cognitive	8	5	1	4
Score of cognitive social capital (out of 8/-8)					

Table 12: Summarised findings and values assigned on the knowledge absorptive capacity

Variable	Dimension	Subcase 1	Subcase 2	Subcase 3	Subcase 4
Knowledge absorptive capacity	Potential absorptive capacity	2	1	2	-1
	Score of potential absorptive capacity (out of 6/-6)				
	Realized absorptive capacity	1	3	-6	-6
	Score of realized absorptive capacity (out of 8/-8)				

Table 13: External recommendations for the network organisation

External recommendations for the network organisation	
Strengthen the emphasis of the network's 'circular image'	<i>Highlighting the image of the network as applying approaches of the 'circular economy' can be beneficial strategy to increase the external awareness and support for the network. Since the majority of the social enterprises participating in the network are indeed applying an 'upcycling' approach (converting the surplus food into new products), the network fits nicely into the image of 'circular economy'. And as 'circular economy' is a highly popular term which attracts a lot of attention lately, framing and presenting the network organisation in such way could potentially open up new possibilities for the network, like as lobbying options or connecting the network with other larger initiatives and organisations reaching the circular economy.</i>
Stress the aspect of social innovation	<i>By stressing the aspect of the enterprises generating a social innovation, the network can increase its support base and the overall image. Similarly to the 'circular economy', social innovation receives a considerable amount of attention, particularly in the European Union with the European Commission offering different initiatives and investment packages provided for facilitation of social innovation solutions. Moreover, a FUSIONS (2016) 'Recommendations and guidelines for a common European food waste policy framework' suggested a creation of a 'food surplus social innovation network'. In case this recommendation will be considered in the European Union, it could be interesting for the network organisation, and highlighting its social innovation nature beforehand could be in such case very beneficial.</i>
Stimulate creation of attractive partnerships between surplus donors and retailers	<i>Approaching more food waste suppliers and retailers can lead to successful negotiations on new partnerships of the network organisation. With the raising awareness of food waste problem, such partnerships can be attractive to the food donors as well as retailers, as they can better adjust to the trends and build on their 'social' image. As such, development of networking activities in order to strengthen the network's image, to enlarge the endeavour of its activities, and also to meet its overall objectives, can be something which the network should continuously work on.</i>
Improve the usage of the network's brand 'Verspillings is Verrukkelijk' by the members	<i>Agreements on higher frequency and usage of the 'Verspillings is Verrukkelijk' logo, such as on the retailed products of the participating enterprises, could significantly strengthen the image of the network organisation. Such presentation as a matter of fact, could not only help the network organisation as a whole, but also the individual members. By placing the logo on the enterprises' products which are in reach of ordinary consumers, the potential of all member's reach of consumers increases as anyone can search for the meaning of the logo (and so also the brands of other members) online.</i>
Increase the awareness of the network organisation in the Netherlands	<i>The increase of the awareness of the network organisation in the Netherlands is important to meet the network's goal of decreasing the number of wasted food. MVO Nederland can play meaningful role it this inside of the MVO organisation, but also externally. In regard to external presentation, media can be particularly helpful in increasing of the network's awareness. At the present time, the individual members are rather active online and their profiles on social media are well established. The same however, cannot be said about the network organisation as a whole, which besides having its own website does not represent itself on other social media channels. A professional could be hired by the MVO Nederland to increase the network's awareness, such as by creating a dynamic strategy to be followed for the upcoming months and establishing the network's profile on the different social media.</i>
Broaden the network's horizons outside of the Netherlands	<i>Although it is challenging, the network should try to work on its internal and external legitimacy simultaneously. By broadening its scope and opening itself up for other existing social enterprises and food waste initiatives outside of the Netherlands, the network can strengthen its position, increase its awareness, and also potentially help its members by providing them with successful examples from other countries. By networking, creating more links with like-minded individuals, consultation and best-practice sharing outside of the Netherlands, new possibilities could be open up for the network as well as its reach of the overall objective of 'decreasing the food waste'. Broadening its horizons and working on connections outside of the Netherlands can similarly facilitate more exchange of information and knowledge, and so encourage more learning and innovation of the network's members.</i>
Promote awareness and education	<i>The network organisation can play more meaningful role in improving the lack of general stigma, when people don't feel bothered about wasting food. Promoting more awareness and education, the network could launch an awareness-raising campaign against the food waste in the Netherlands. It can be particularly beneficial in resolving the people's confusion on the expiry dates on the labels and excessively cautions consumers habits when deciding on what food they can no longer consume. Proving and spreading the wisdom that the enterprises' products (made out of food waste) are safe for the human consumption, can play a pivotal role in the awareness-raising campaign. Some of the participating enterprises in the network provide such information on their websites. However, no information like that can be found on the Verspillings is Verrukkelijk website, which should be changed since the network being an aggregation of all the enterprises can play a bigger role in this regard. By dissemination the information, which is in cases unimaginable for an ordinary consumer, the campaign can stimulate public dialogue on food waste, hopefully leading to an alternation of the consumers patterns when it comes to throwing away their food.</i>
Keep exercising and advance the application of a 'suasive approach'	<i>Suasive approach encourages changes in behaviour through the provision of information. Being connected to the recommendation of stressing the awareness and education, not only the consumers can be targeted by the awareness-raising campaign of the network organisation. Producers, retailers, restaurants, but also local authorities and corporate entities can be targeted by the network's education and awareness campaign against food waste. Strategies and tools can be applied to persuade them to behave in a more ethical and environmentally responsible manner, mainly by providing them with more information and good-practice of how to prevent food waste. Communication campaigns, such as in a form of public events (e.g. festivals, workshops, exhibitions, etc.) are good examples of the application of the suasive approach.</i>

Findings on the individual subcases (analysis of the findings from the perspective of each enterprise):

Subcase 1

Subcase 1 belongs to the largest enterprises in the platform. This has been highlighted and indicated as problematic, hindering the enterprises collaboration with the other members: *'For us sometimes, it is difficult to have a cooperation with the platform because there are a lot of small companies, who joined that platform and we are one of the biggest companies in that platform. So sometimes the issue is that the things addressed on the agenda are sometimes too small to pick it up.'* The platform being very likely more beneficial for smaller/younger enterprises is something which the representative MVO project employee has agreed on as well.

At the same time, the enterprise 'supports the platform' and also provides some direct support to the other members. These can be also noticed by a visitor of the enterprise's location, where one can see several posters of the *Verspillig is Verrukkelijk* as well as a corner presenting all the platform's retail-ready products. During a general presentation of the enterprise's location building, these products receive a compelling attention. Although they are not offered for sale, and similarly cannot be commonly consumed at the place, all the products were presented, highlighting their brand, the story behind it and in several cases also the name of their inventors. Moreover, it was stated that most of these products are in cases of enterprise's private events offered to the guests for consumption. *'Instead of whatever kind of ice-tea, we naturally always offer the Thijstee'* (Thijstee as a platform's participating enterprise). This could suggest the Subcase 1 being a 'referral' to the other members, endorsing their reputation, offering and presenting the other enterprises' products. Similarly, it can be noted that the Subcase 1 is a member, which follows the 'game rule' number 2, offering products of the other members with not only five products, but the whole *Verspillig is Verrukkelijk's* range.

Within the facet of the network configuration, epitomizing the network's structure, the property of hierarchy has been touched upon and criticized in terms of too direct role of the MVO Nederland as *'taking the lead in it'*. Concurrently, the structure was described as *'it is very flexible, I think new business partners can do proposition that will be accepted or not to join, so I think that is also okay...'* At the same time, the standpoint on the platform's structure (which is facilitated by the MVO Nederland) stimulating the cooperation between the enterprise and the other members has been classified as highly relevant, indicating an affirmative opinion: *,that is very strong of that platform that everybody cooperates together and communicate together to get the team of waste to a next level.'*

When it comes to the connectivity of the structure in terms of network ties, the network has been regarded as not very beneficial. When asking whether the Verspilling is Verrukkelijk increased the number of enterprise's connections and if they have been beneficial, the answer was: *'Not so much. We have a lot of connections by ourselves. And the most connections that were new were mostly the business partners themselves'* (meaning the other members). It can be said that the network enabled development of at least several new direct ties for the enterprise, being the other platform's members, but these have not produced any beneficial indirect ties. As such, the ego network size of the enterprise has through its participation in the platform enlarged only marginally.

The reasoning for this could be essentially the fact of the Subcase 1 being one of the largest, oldest and most developed enterprises in the platform. Moreover, the enterprise seems to have a rather stable background in its location building, which offers a wide range of networking opportunities and possibilities to develop direct and indirect ties, as it is home to many like-minded enterprises and start-ups involved with the circular-economy. Furthermore, the affluence of 'their own connections' can be also derived by exploiting the connections of its much larger 'sister company'- being a sizeable well-known catering company, which connections can be potentially used for the enterprise's benefits.

The connectivity of network's structure shall in theory ease the information sharing and exchange. This was however classified as 'highly irrelevant' for the Subcase 1, as on the question of general sharing of information or news with the other members, the answer was: *'No, it is not common. Not yet.'* Such sharing and exchange, for example in discussing of a new products, seems to be more relevant internally, within the enterprise: *'We have a lot of employees... so we are really focusing on the market, so it is not always open to negotiate about the process of new products. We do it only internally.'*

In regard to the appropriable organisation and 'bringing in' the enterprise's own connections to the platform, the answer was *'yes, that happen'*, but no further elaborated on and so classified as fairly relevant. The platform has never been used by the enterprise for other purposes than explicitly dealing with food waste *'I think the focus is really food waste, so really other information I don't think there is'*, and so considered as highly irrelevant.

In regard to the rational dimension of social capital, the importance and aspect of trust was distinctly highlighted. Firstly, when agreeing on having trust in the other members of the platform and could not imagine a situation of them misusing this trust: *'no, no, we trust the other members definitely'*, and secondly it has been mentioned as one of the norms shared with the other members of the platform: *'and norms like trust, transparency, cooperate...'* Moreover, having the same goal of combating food waste was described as *'the most important norm'*. Connecting the same goal to a facet of cognitive dimension of social capital, the shared narrative and shared vision, these were classified as highly

relevant, as the shared narrative of food waste and the shared vision of tackling food waste together was considered motivational to collaborate with other members. Similarly, it was considered motivating the enterprise to deal with the food waste more: *'Yes, they energise it.'* The entrepreneur disapproved any sense of competitiveness among the platform's members and the enterprise does not seem to feel a sense of obligations to or expectations from the other members. It identifies itself with the platform and/or other members only *'sometimes'*. This could be again reasoned with the enterprise's characteristics, for example not having the same challenges as some of the smaller, only starting enterprises. Also, the objectives of the enterprise are broader than just explicitly dealing with food waste, as some of the other members have.

The cognitive social capital on the other hand, seems to be convincingly relevant dimension for the enterprise. The importance of having shared narrative and shared vision with the other members was already discussed. In a similar way, the prominence of Dutch as a language shared among all members, was highlighted. Moreover, the Subcase 1 is the only enterprise of the subcases which noted relevance of 'shared codes' among the platform's members as something which might have been challenging to understand for an outsider. Providing an example: *'maybe it is the food rescue that kind of terms, so, to make it positive, that I think is at least what we try...'*

Both facet of the cognitive dimensions with their affiliated questions were regarded as highly relevant, and so altogether the cognitive dimension of social capital is for the enterprise a convincingly important essential of the platform. The structural dimension of social capital can be regarded as not really relevant, essentially scoring minus values. Based on the critique, the structural properties of the network are not particularly beneficial for the enterprise, not fitting very well with their needs and wants. Some facet of the relational dimension of social capital were considered to be relevant, while others were not. Similarly to the structural facets, the values revoked each other out, and so as a whole the relational dimension of social capital is classified only marginally relevant for the enterprise.

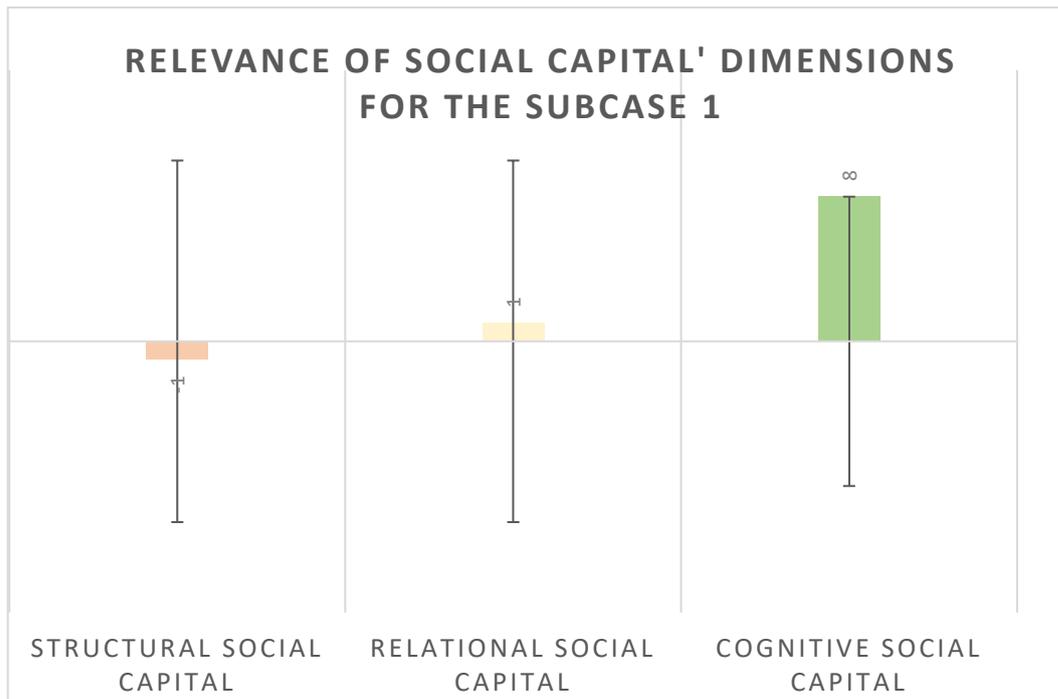


Figure 9: Relevance of social capital' dimensions for the subcase 1

The knowledge absorptive capacity of the enterprise seems to be at place, with both the potential as well as the realized capacities operating. In terms of acquisition, it was stated that the enterprise is not able to identify valuable information and/or knowledge resources for itself from the platform. Although, it is highly motivated in learning and gaining more information and/or knowledge to advance itself, this seems to be again done more internally, from within the enterprise's staff, by *'personally following the latest trends.'* The information flow and the knowledge which the platform offers has been regarded as easily understandable, so the assimilation capacity does not seem to be a problem which could potentially hinder the reach of information/knowledge resources from the platform. As such, it could be concluded that from the viewpoint of the enterprise the platform simply does not offer valuable information and/or knowledge.

The transformation capacity was rather relevant as it was acknowledged that through *'sharing of some knowledge'* with the other members, the enterprise was able to combine its existing knowledge with a new knowledge coming from the network. Moreover, there were cases when the entrepreneur found himself in a situation of feeling a need to reconsider his information and/or knowledge because of the information and/or knowledge shared within the network: *'Yeah, I think that happened. I think it is more the conversations that you have about food waste and how market does respond to it, to the theme and how you can react on it.'*

However, although feeling like reconsidering its existing knowledge resources, an action of actually making some adjustments based on the information and/or knowledge shared within the network was disapproved.

Both the potential as well as realized knowledge absorptive capacity seem to be present and applicable for the enterprise. To some extent also relevant for the enterprise’s abilities to gain and transform information and/or knowledge from the network. However, the transformation does not reach the exploitation capacity as no adjustments were made and the network was not considered to reinforce the enterprises innovation.

In overall, the enterprise seems to possess the knowledge absorptive capacity and so it is certainly not hindering its ability to exploit the social capital present in the platform. The capacity similarly does not hinder the innovation adoption, but at the same time does not convert into one. The network simply does not seem to offer a knowledge resources needed for the more ‘advanced character’ of the enterprise, and thus was regarded as not beneficial for its innovation adoptions, which were acknowledged as internal achievements of the enterprise.

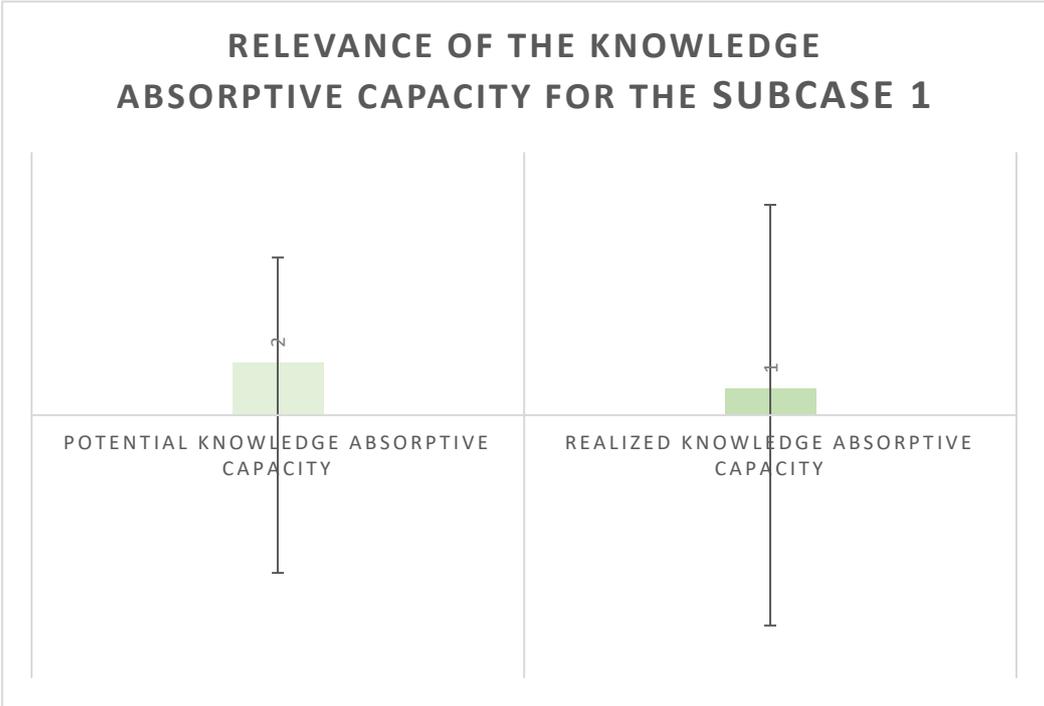


Figure 10: Relevance of the knowledge absorptive capacity for the subcase 1

Subcase 2

Subcase 2 seems to be the enterprise with genuinely the most positive opinion about the Verspilling is Verrukkelijk. It also seems to be an enterprise which realizes and is capable of exploiting the social capital which the platform offers. This might go hand in hand with the enterprise’s active engagement in the platform, its commitment to meet the platform’s purposes as well as its belief in its relevance.

Furthermore, the positive opinion about the platform strengthened in the lifespan of the enterprise's membership: *'Yeah so eehm, so I am very positive about the platform. At first, I was not that much because I didn't see the value directly. But now the primary value for me is the finding of support in like-minded entrepreneurs. And because we chat a lot with each other and know each other very well and we are in the same pretty volatile way of developing a business it is really nice to have a group and to be bounded with such a group'*. The affirmative viewpoint on the platform could be divided on one hand to a more relational/supportive origin, with the platform as a source of like-minded individuals and entrepreneurs with similar characters and challenges. On the other hand, a more commercial origin, with the platform adding value and improving the enterprise. *'I really enjoy it and yeah commercially we do have some added value by being together... Yeah, so I think commercially it is also of value and then of course for example you can ask each other like hey how do you do the counting, how do you this and that and we have a common fulfilment partner. So, it definitely helps us, it gives some leverage to sales, to logistics. But also, especially for me it's a platform of like-minded entrepreneurs.'*

When it comes to the structural dimension of social capital, the Subcase 2 was the only enterprise for which the facet of network ties had been regarded as highly relevant. The entrepreneur undoubtedly proclaim that the platform increased the number of their connections: *'Yeah, definitely! Yes, in sales maybe 10 parties...and yeah then also a lot of other interesting persons and parties.'* The structural properties of the network had been criticized due to several aspects: in terms of its size and lack of funding; in regard to the very low commitment and interest in the platform from the side of some members; and in communication terms. The critique of the communication aspect concerned mainly a dissatisfaction of the WhatsApp chat being the main communication channel. Generally, the online communication was labelled as a 'poor way' of communicating. *'I have been in more platforms and online sharing is for me not really effective, I like traditional phone calls because then you can really evaluate things and talk through things and by online sharing... online databases in which you can share ideas or so, that for me doesn't really work because then you have to really be active online and the way of communicating is a bit poor I think.'* The entrepreneur clearly prefers a conversation in form of phone calls rather than chatting: *'by phone I think eehm you can really generate and evaluate ideas and yeah, it is much more effective'*. As such the regular skype sessions were praised: *'so this three weekly meeting is really useful by phone'*, but at the same time in consideration of the entrepreneur's preferences does not take place often enough. Three weeks period was thereof viewed as too long as *'there is too much stuff going on to really share effectively all the things.'*

Besides a room for communication improvements, aspect of remodelling the network's structure in terms of improving of the commitment rules was highlighted, but also assessed as something which is currently working on. A larger potential of the platform was discussed, as something which could

happen if the network would alter and advance itself more in the future. This potential is seen mainly in its function going beyond the market and commercial aspects, such as *'exchanging of the sale opportunities'* to more learning and exchanging: *'also on like production fulfilment, on that side, or you know accounting, finance, investing, investors, we can learn a lot from each other and that we haven't yet. So there is no structure that facilitates that yet.'* Emphasising again the non-existing structure which could enable the stronger learning and more exchanging potential of the network. Altogether, the positive view still remain as: *'I mean we are all really busy.. and I think so far, for this short time yeah I am pretty positive about what we have got.'*

The facet of appropriable organisation is in this case rather interesting. Although answering adversely about the platform being ever used for other purposes than explicitly dealing with the enterprises' developments and with food waste, a pattern had been described when several members from within the platform form their own smaller partnerships. Within these partnerships they support each other also outside of the platform's operation: *'we are a large group...but you know some hook up with each other a little bit and they know each other better than the others and they really support each other.'* For the enterprise such extraordinary partners from within the platform are two other participating enterprises. As such it seems like the social capital from within the platform is moved to outside of the platform also, and similarly it was agreed on that the personal connections have been 'brought into' the platform as well.

The facets of relational dimension of social capital began with describing the relations with platform's members as: *'Veery personal, very informal. Yeah, I like it a lot, it is really.. it is not business relations we have.'* The general belief is, that the other members take the enterprise's interest into account, providing an example which involved the two extraordinary partners: *'the two partiers that are really, I mean they get along with us because we are having similar clients and they make tosties so they can easily sell our product as well. So they really take into account our interest.'* There is a genuine feeling of trust in the other members, although a slight suggestion of selfishness of some members was raised: *'And there are some parties maybe that do make goal for themselves a bit more... but because the common spirit is different and the leading parties really have a generous mindset... yeah I am really not concerned with the goals for themselves a bit more'.* Norms shared among the platform's members have been considered as highly relevant, convincingly identified as: *'Really fighting for sustainability, and yeah I think again the common spirit is really to support each other and not to compete. So support is really prevailing above competition'.* Expectations from the other members, supported by an example of sharing, were identified as highly irrelevant as: *'there are so many things to share that we really don't compare who shares what with whom and no, it is not.. I think it is pretty open and if somebody wants to keep something for themselves, he probably has a reason so'.* On the other hand, there was a strong

feeling of obligations towards some members: *Yees, yeah definitely, yeah. So I think the two parties ... they are helping us a lot and I would like to do something in return, so I feel like owing them'*. The aspect of identification was once again rather undecided, as the entrepreneur identify itself only *'with some members yes, but that's more like as an individual'*. The reasoning is again, that the enterprise has broader objectives than explicitly dealing with food waste and that making improvement in Kenya is really at the heart of enterprise's essence: *'we are focusing on food waste but we are much broader that. Yeah, I am currently in Kenya and we are really working on agriculture here...so that really is a different perspective from most of the members.'*

Concerning the cognitive dimension of social capital, the facet of shared language was considered as relevant, but more in a broader sense with all of the participating enterprises being Dutch: *'eehm, not so much the language but rather that we are living close to each other and maybe sharing the culture... and have the same market, same logistics here in Holland, that makes us much closer rather than the language'*. Shared codes among the members were regarded as nonrelevant. Differently, the shared narrative was highly relevant, and the importance of the shared vision was emphasized as very important as it provokes *'feeling of common ground with others'*. Another platform was brought up as an example in this regard, in which case the shared narrative and vision is something that the entrepreneur is missing: *'We are also in a platform 'Amsterdam Made', you may know it. It is a platform of entrepreneurs in Amsterdam that make products.. and for me it is pretty meaningless. So we have joined the platform and we got some yeah help a bit, but I don't feel common grounds with the other members.'* The shared narrative also serves as a motivational boost, strengthening the enterprise's willingness to deal with food waste. Although this have been described through a more commercial language, of tackling food waste in terms of increasing the sales of enterprise's product : *'I have learned a lot from the others and I mean we are not competing individually, but if you look at how motivated for example the sales people of ... are, it motivates me also to move the product, to increase the sales.'*

Summarizing, the indicative questions on the cognitive social capital as well as on the relational social capital were to a large extend answered affirmatively, indicating the dimensions relevance for the enterprise. A strong affiliation to the relational capital was in this case noticeable, with a narration of for example finding a *'like-minded individuals'*, *'hooking up'* with some members and forming stronger partnerships, feeling of obligations towards some members and describing the relations as very personal. It indeed felt like the enterprise's connections with platform's members evolved into friendships. The structural dimension of social capital did not score very high in terms of its relevance

for the enterprise, which can be reasoned mainly with the enterprise's critique of the network's structural properties and undoubtedly feeling plenty room for improvements.

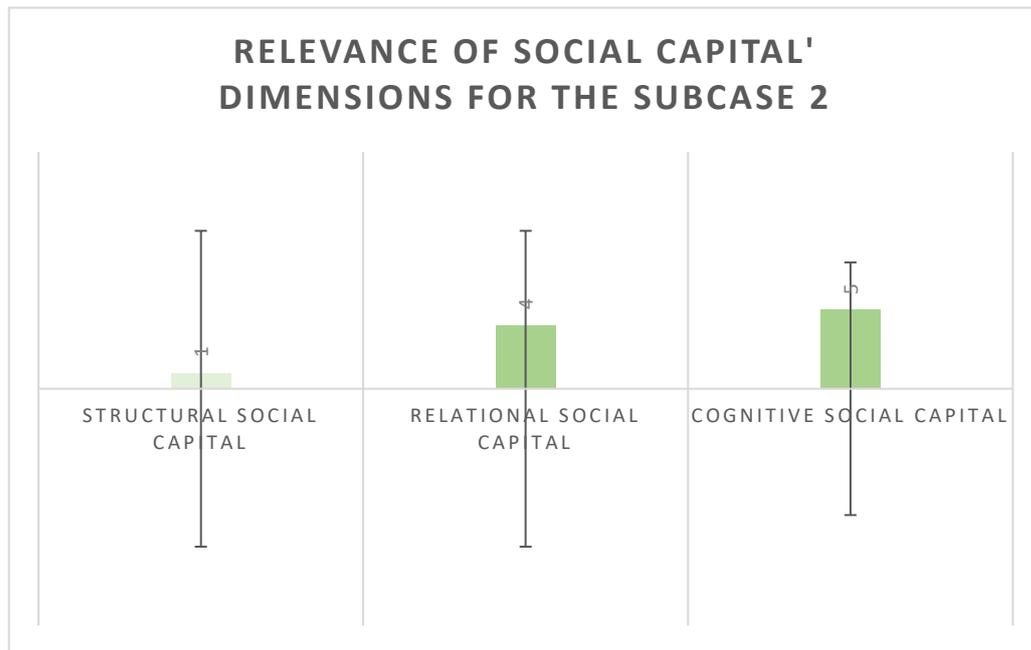


Figure 11: Relevance of social capital' dimensions for the subcase 2

The Acquisition capacity of the enterprise was considered as relevant since the entrepreneur claimed to be definitely motivated in learning, acquiring new knowledge resources and so advancing the enterprise. Similarly information and/or knowledge resources valuable for the enterprise were identified from within the platform: *'Yes, I have learned a lot. I mean they are few entrepreneurs, so enterprises that are way further. So like ... they have been supplying food service parties for long time and they know how to deal with this parties so I have learned from that a lot. And also, how to do your fulfilment, and production, so these things are really useful.'*

Assimilation capacity on the other hand was seen as more problematic and considered as highly irrelevant. The entrepreneur found it rather challenging to understand the information and/or knowledge shared within the platform and was not able to always understand it. *'No, not at all. This is really important point. Because newcomers, the people who join the platform the first months they have no clue what we are talking about. And it is not about the terms we are using, .but more like we talk through a lot of things so many times that we are using shortcuts. So, you know, we are not explaining a situation very well because we know the situation and then we go from there. But for a newcomer it really takes time to understand what is happening, who is who, to learn everybody's involvement. So, it's yeah, not always clear.'* When elaborating on the topic, it was explained that in order to really understand the information and knowledge coming the platform, the member needs to be actively involved. Otherwise the information with the time becomes too specific and hard to understand.

Concerning the realized absorptive capacity, the transformation capacity of the enterprise seems to be well developed, considered as highly relevant. The entrepreneur claimed to be able to combine the enterprise's internal knowledge with the external new knowledge shared within the platform and also found herself in situations when she felt like reconsidering her information and/or knowledge based on the information and/or knowledge coming from the platform. An example was mentioned in this regard: *Yeah so for example like price or margins, like how are others doing it, why are we doing this this and this way, so we started to really reconsider indeed'*. This particular example of reconsidering the price margins however did not proceed into actual adjustments of the enterprise: *'Well based on this particular case not, because we have found out that we couldn't really change it'*, but other examples of adjustments due to the network's knowledge were mentioned: *'for example our fulfilment and yeah I think we made some other decisions. Some other changes yes. Yeah especially in how to approach customers, which customer...'* The exploitation capacity thereof similarly seemed to be relevant. However, when asked about opinion whether the network reinforced innovation of the enterprise or helped to create some novelty based on the adjustments made, the answer was more sceptical: *'Eeeh, its strengthens us but it is not that it is really helping innovating, that no, I don't see it like that. It motives and it helps to reconsider certain things, but ehm I wouldn't say it is really helping us to innovate'*.

Both the potential as well as realized knowledge absorptive capacity were classified as more relevant, as the enterprise seems to possess these qualities. Although the application of its assimilation capacity in the network was described as more problematic. So, despite admitting that the platform offers valuable knowledge resources and both the potential and realized knowledge absorptive capacity seem to be in place, the entrepreneur was very clear about the enterprise's innovation being their own and not connected to the platform. When inquiring the innovation adoption, the initial reaction was: *'Yeah, just ourselves right, not by ViV, but with our own force a lot yeah...'*

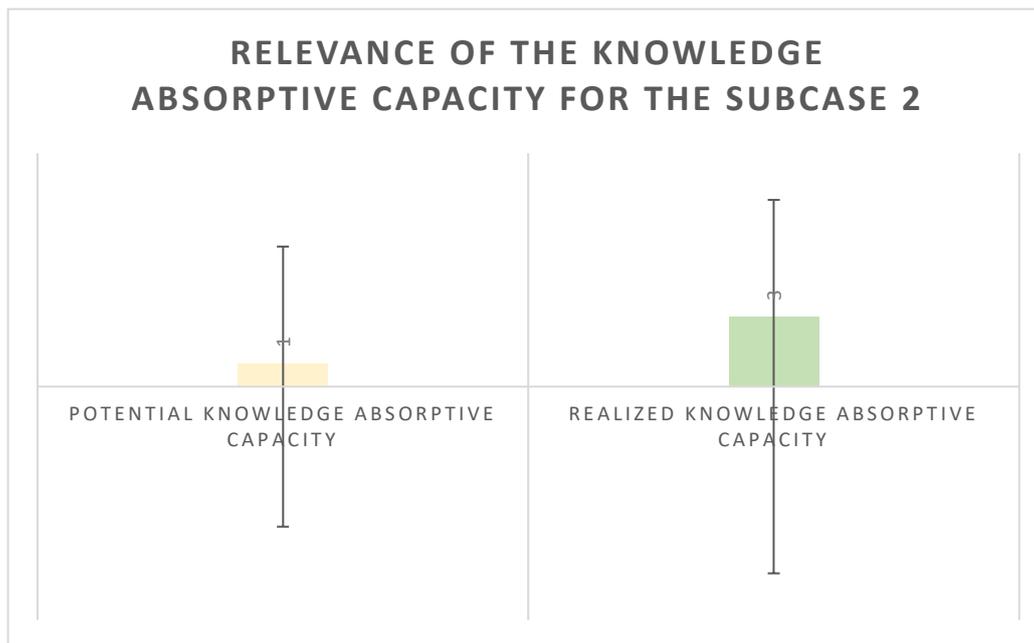


Figure 12: Relevance of the knowledge absorptive capacity for the subcase 2

Subcase 3

It should be noted that since subcase 3 is no longer an active member of the network, nor an enduring enterprise, some of the indicative questions were adapted to these circumstances. This affected primarily the inquiries on the knowledge absorptive capacity and the innovation adoption.

In regard to the structural dimension of social capital, the facet of network ties was considered as highly irrelevant. The entrepreneur disclosed that the participation in the network did not generate valuable direct or indirect connections: *'No, not really. I have met some five people or so but have not done anything with them, yet'*. These few new people were not considered useful for the entrepreneur: *'No. Everything I have done came from before the ViV network attachment.'* The view on the network's configuration was not very positive either, with the core idea being that the network consists of too many different enterprises and no structural rules on their commitment in place. As such, the structure was described as flexible, but maybe too flexible. The main problem was seen precisely in the lack of commitment and rules in place, with an opinion: *'I guess it would help if something would be more mandatory, or if people would have the guts to say to each other: listen you are never participating but you are...'*

The view on the network's structure stimulating the cooperation between the members was undecided. *'I don't know actually, I mean there is not like, or at least what I know, there is not like a combined databased or something that you can access. I mean it would help to know, so that everybody shares their knowledge, hmm but on the other hand they are organising events, organising calls...'*. In

connection to the facet of appropriable organisation, a potential of the platform going beyond its primary purposes was discussed. These were according to the entrepreneur mainly the representative purposes, *'so, food waste is a core reason why it was established, but I mean, if you look really into a core of it, it was to combine the power or the non-existing power that all companies have into bigger platform to have more PR, to be bigger...'*. There was a sense of belief that the platform could be used for more than that, and that it could indeed stimulate more cooperation and knowledge sharing between its members. However, for this to happen, the communication has been described as a key. And this key was also seen as something which the platform precisely misses. *'I mean if it should be the most effective there needs to be a good communication.. like we say in the NL the wheel is always being re-invented, ehm and it might be even re-invented by a colleague sitting three desk from you, but if you don't talk to each other, then you never gonna know. There is always, every company is inventing somekind of wheel for themselves that other companies might have already invented and established ... so yeah adapting a more sharing idea.. I mean sharing is caring so if you know something you share it with others so that the others could profit from it'*. Bringing into the platform personal connection was considered as highly relevant: *'Yes I think I have done that. I am always in sharing connections so yeah, I think I did. Or sent some connections from ViV to other persons.'* However, when asked about other members doing so as well, the answer was more sceptical: *'hhhmm I mean there are some people actively stepping up and doing their part, but I don't see a lot of new, I mean I never see any names being send on the whatsapp group...so it is not like hey I have talked to that guy and he is... I mean sometimes it is maybe, but then it is not very frequent.'* Other enterprises not transferring their individual social capital into the platform was reasoned with looking more inwards, meaning the enterprise itself, than outwards.

From the facets of the relational dimension of social capital, trust has been considered as highly relevant, mentioned also as one of the core norms shared among the members: *'I would say there is more than normal level of trust because we are social people tackling the social challenges of the world. So hmm, I would say that we are above normal willing to share and to help'*. Discussing competitiveness, there was a direct note on the Subcase 2: *'If I were to be more successful then I was going to be a ketchup producer and there is also the ..., so it is exactly the same product, I mean ketchup. Ketchup is a very generic product... But if you are just a shopper and you are looking in a store for products, then you see almost identical types of products if they are side by side on a shelf.'* However, the sense of competitiveness among the network's members was concluded to be highly irrelevant as although being direct competitors, the real competition is the 'regular commercial companies'. *'I mean at the end we are competitors, but on the other hand hmm we are in competition ketchup-wise against for example Remia, Heinz or the others. I mean Heinz is a multibillion company and we are companies making a*

couple of thousand euro. So on that side, from that point of view it is better to have 15 more social ketchup making companies, ehm because if you look at it from that point of view there is never any competition because we are all tackling somekind of social challenge and as long as there is social challenges and food waste in the world there is never going to be competition between us'.

The aspect of identification with the other members was regarded as undecided, the entrepreneur identified himself 'somewhat' with the other enterprises, but that mainly because of 'having some same challenges as they face, but that is mostly to do with being a small starting entrepreneur.'

Within the cognitive dimension of social capital, the facet of shared language was considered to be highly relevant, essentially easing the communication with others. Relevance of all enterprises being Dutch and sharing the same language was also highlighted by bringing up an example of Flanders in Belgium: 'Sure, because everywhere it is like that.. in your country if I cannot speak the language then it is hard to communicate and it is hard to understand, and it is a basis for a disagreement. Because it is not even that you are actively trying to disagree or actively look for a verbal fight, but it sometimes just happens because you misunderstand... But even if a case is a Dutch person talking to a Belgium person, ehm from the west of the Belgium, they speak Dutch but it doesn't mean that they are using our words...'

The facet of shared codes was considered nonrelevant. However, some interesting insights were mentioned on shared narrative of food waste when describing that although there seem to be a common shared vision of tackling the food waste, the individual members have all different ideas on how to do so in the best way. As such the suggestion is that the broader narrative seems to be in reality split into many individual narratives and specific visions. 'Everybody in the network is busy with his or her vision on food waste, so there are companies fighting food waste from producers' side, there is companies fighting food waste for project in Africa, there are companies who are fighting food waste like male chicks or male eehm male animals which are thrown away or killed instantly, so they are doing something else. So everybody has his own vision on how to deal with food waste'. The shared narrative of fighting the food waste together was considered as motivational for the entrepreneur to join the platform at the first place, 'it was the combined effort of tackling the food waste problem, that was my reason to join'. However, the shared narrative and the platform itself did not strengthen the entrepreneur's motivation to deal himself with the food waste in the future.

It can be summarised and as the figure below indicates, the structural dimension of social capital was mainly classified as highly irrelevant, with examples as facet of network ties not being beneficial or facet of network configuration considered as inadequate. The relational dimension of social capital scored differently, reaching the positive values. From the cognitive dimension, only the shared language and

shared narrative motivating to join the platform at the first place were considered as highly relevant, while the rest was assigned negative values, balancing out the final score.

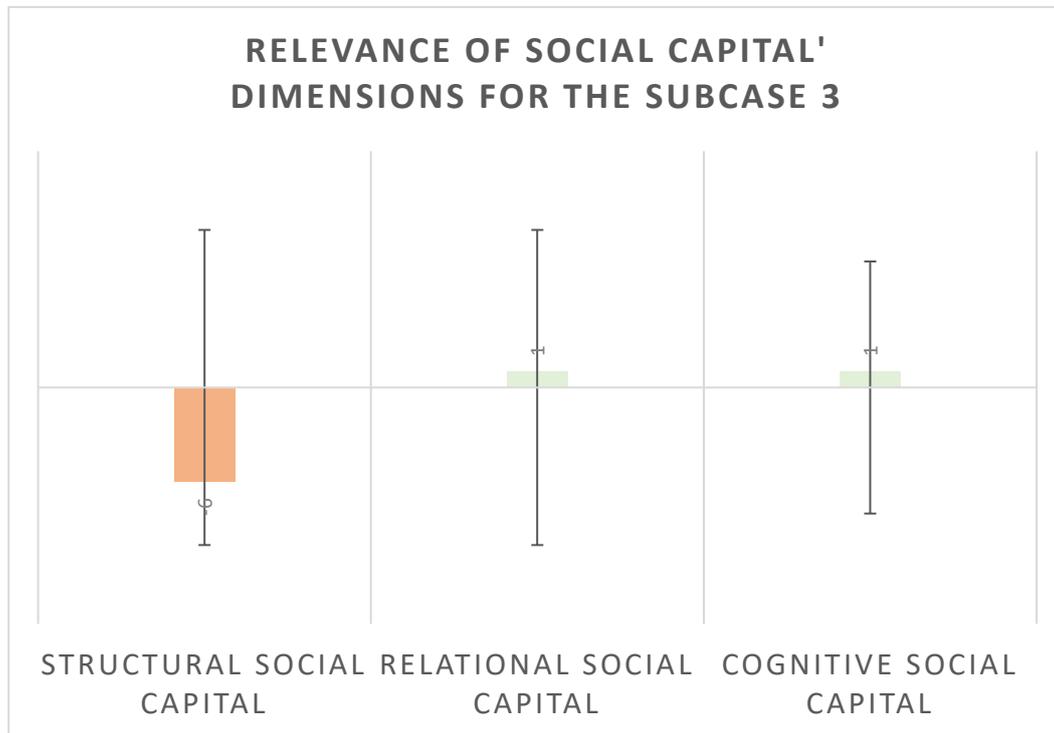


Figure 13: Relevance of social capital' dimensions for the subcase 3

As mentioned, to operationalize the knowledge absorptive capacity of the enterprise was rather challenging as in this case the entrepreneur had to look back in the time when the enterprise was still enduring. Altogether it can be summarized that it was stated that the enterprise was not able to gain any valuable knowledge from the network. As such, no knowledge or any new information could have been used for reconsideration, adjustments, or creation of novelty when the enterprise was still functioning. *'No, hardly any. Everything I have done myself. Hhmm actually I didn't gain anything, I mean I have learned some people, but I would have met them otherwise if I wasn't in the platform. Because in the end you all move sort of in the same circles and same events...'* The absence or only a limited knowledge absorptive capacity of the enterprise can be one reason for these disclosures. On the other hand, the entrepreneur also admitted to that his not very active attitude neither helped to gain something out of the network. *'as always standing on a side line or not going to events never helps. So if I would have participated frequently, would be in a skype call every three weeks, if I would join the events then sure I would have met so much more people. And there are sometimes face-to-face meetings...and I have never visited... It was because I wouldn't have gained anything.. otherwise it would cost me some couple of hours, cost me tens of euros for the train.. and I would have known maybe then some more people'.*

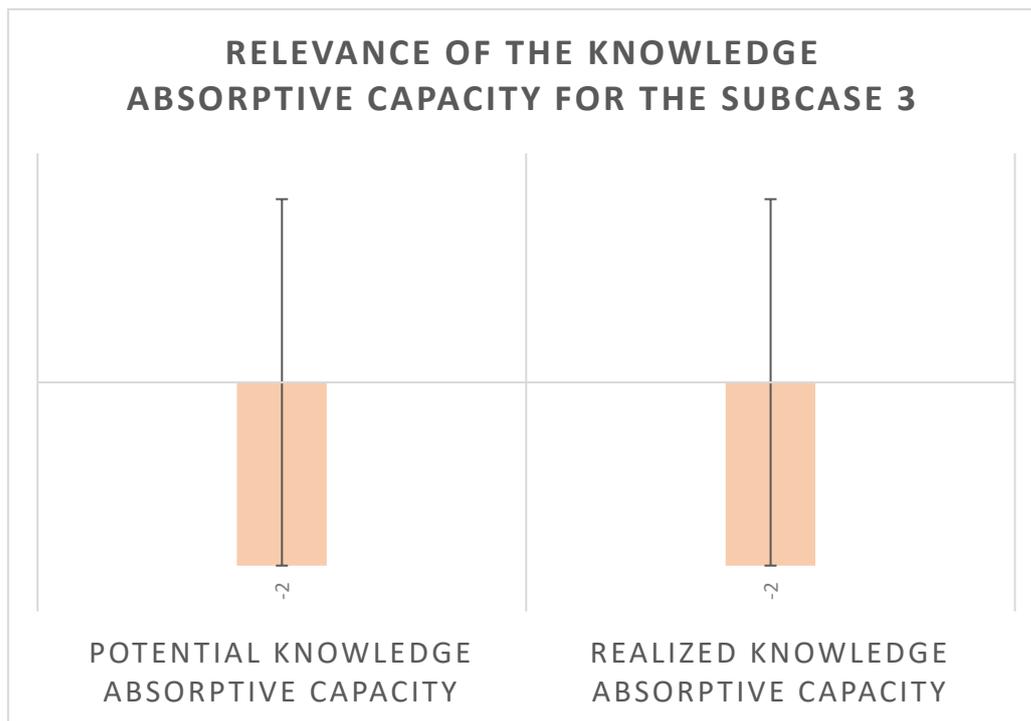


Figure 14: Relevance of the knowledge absorptive capacity for the subcase 3

Subcase 4

It shall be noted that for the Subcase 4, as a no longer an active member of the platform, the indicative questions were phrased in a past tense and the entrepreneur was asked to recall back the situation when the enterprise was still part of the Verspilling is Verrukkelijk.

In terms of structural social capital, the network ties were considered as highly irrelevant as the network did not increase the number of enterprise's new indirect or direct connections. The other members of the platform were considered as not useful, as a matter of fact the entrepreneur had troubles to even identify them. Name of one member was mentioned as someone, who the enterprises already knew before. The structure of the network was criticized and labelled as *'lot of talking and not that many actions'*. When asked about whether the structure of the platform in place stimulate cooperation between the members, a more doubting opinion was shared, highlighting the differences between the members as problematic: *'Maybe it tries to stimulate it, but every company is so different, one makes juice and another one meat, I cannot see how juice and meat or so can join each other.'* At the same time, the structure was recognized as providing the enterprise with opportunities for learning and exchanging of the knowledge with the other members. Also, it was considered as stimulating discussions between the members to see their common grounds: *'Yeah, I think that it helps that everybody gets more understanding from each other. Because they try to find more companies to join and then there is always a discussion about can this company join or not, is it really about verspilling, or*

is it more commercial...' The facet of appropriable organisation was in this case considered as highly relevant since the entrepreneur agreed to use the platform for other purposes that primarily meant for. An example was mentioned when knowledge resources from the platform were used for setting up their own cooperation. The platform, in particular the MVO inputs, were concluded as rather helpful in this regard. In terms of whether the enterprise have ever 'brought in' to the platform their own connections or if a situation when any other member had done so can be recalled, the entrepreneur could not say anything.

From the facets of relational social capital, trust was regarded as relevant, supported with saying that there was never feeling of competitiveness among the members. As such, the perception was, that genuinely the platform's members take into account the interest of others. Regarding the shared norms, the core norm of *'all of us being against the verspillen'* was identified. When a hypothetical situation was described to the entrepreneur, in case she would share some news or information with the other members if there would be an expectations from the members to share things in a similar way, the answer was: *'yes, I think so'*, and thereof classified as fairly relevant. Although, such situation didn't seem to happen in the reality. Differently, the feeling of obligations was considered highly irrelevant, as the entrepreneur never felt like 'owing' something to the other members. The aspect of identification was once again undecided and described as *'somewhat yes'*. The main obstacle in this case seemed to be the biological profile of the enterprise, which was not shared with the other members: *'Yeah, we are biologic, and I would have expected a little bit more biologic companies in this.'*

Proceeding to the cognitive dimension of social capital, the facet of shared language was considered as highly relevant, as once again the matter of all the members being Dutch was considered influential for proper functioning of the platform. Accordingly, an example from their own cooperation was brought up: *'...but we have this little problem also in the Cooperati that the Belgian people would also like to join, the Belgian farmers I mean, and that is a little bit too difficult with the rules in Belgium and with import and export of animals...'* As such a certain relevance of the entrepreneurs being Dutch was acknowledged. Shared codes within the platform were considered to be nonrelevant. The shared narrative of combating the food waste was regarded as important aspect of joining the platform at the first place, supported by the commercial aims *'to sell more meat'* also. The shared narrative of the platform is also believed to support the enterprise's motivation to do what they do and continue dealing with the food waste problem in the future.

To summarize, the structural social capital was altogether considered rather negatively, although this was the only case in which the facet of appropriable organisation was really enforced as the enterprise used some of the network's resources to build up their own network of biological farmers. The relational

capital was neither very relevant as the enterprise seemed to have more distance relations with the other members, hardly considering them as their 'connections', and so the relations with them could be not labelled as personal. The cognitive dimension of social capital scored some relevance, mainly due to the shared narrative of tackling food waste, which in this case was really highlighted as pivotal for the entrepreneur, who is at the same time farmer and besides the food waste aspect wants to improve the life of billy goats in general.

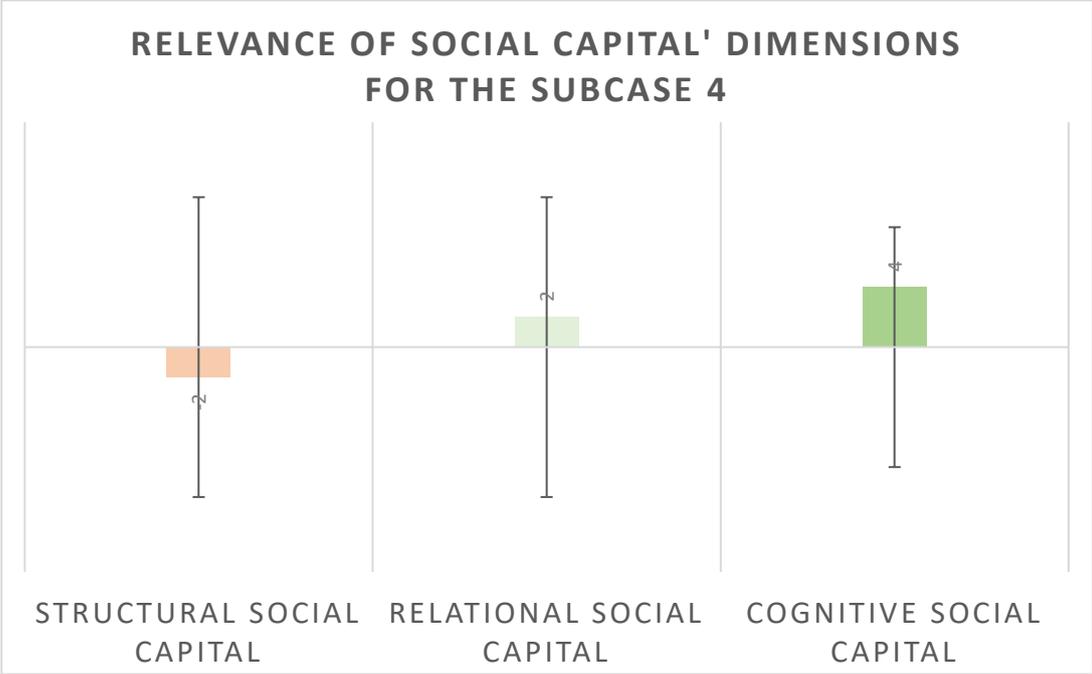


Figure 15: Relevance of social capital' dimensions for the subcase 4

In regard to the potential knowledge absorptive capacity, the enterprise is generally motivated in learning and gaining new information/knowledge to advance itself. However, this is being done individually, by the entrepreneur herself. The main areas of deepening the existing knowledge were identified as: *'I try to get more knowledge about restaurants, what they need and what they want, and how we can deliver the things they really want. We also try to understand companies better that would try to use our meat. And we also want to look how we can help the farmer to produce the best bokken for the meat'*. The entrepreneur was not able to identify any valuable information among these areas from the platform. In parallel, the assimilation capacity of the enterprise was not fully sufficient, not always being able to understand the information and/or knowledge coming from the platform. *'Sometimes it was difficult all the English terms, they use... yeah always use these English terms so it was difficult to understand what they really say'*.

Regarding the realized knowledge absorptive capacity, the enterprise was not able to combine their internal knowledge with the external knowledge shared within the platform. This could be also reasoned with the specific character of the enterprise, being undoubtedly very different in comparison with the other members as the entrepreneur is a farmer and the products at stake being fresh meat. This naturally significantly differs from most of the participating members, whose products are packaged and have long shelf-life. The network did not stimulate the entrepreneur to reconsider its internal knowledge according to the information shared within the platform. Accordingly, there were no adjustments made in the enterprise based on the information/knowledge shared within the platform, and the platform was not considered to stimulate the enterprises innovation.

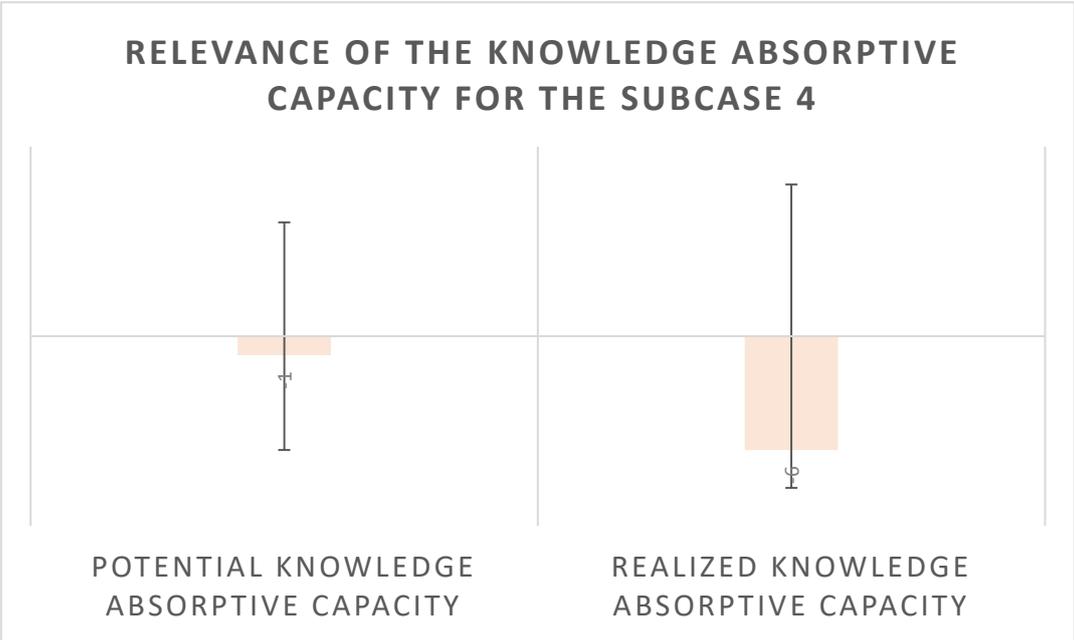


Figure 16: Relevance of the knowledge absorptive capacity for the subcase 4