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# **Innovation in Organizations Providing Debt Advice:**

Understanding Organizations'  
Willingness to Adopt or Develop ICT-  
enabled Innovations

**Gied van Hoorn**  
Master's thesis Contemporary Social Problems  
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## **Preface**

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This research was carried out as part of my internship at the DNA-Academy, an associates initiative connected to Berenschot Consultancy. The DNA-Academy is a commercial initiative aimed at brokering public sector innovations internationally. I would like to thank both Mark Vermeulen and Berenschot for the opportunity to do my internship at the DNA-Academy. The last couple of months have been very valuable for my personal development. I would also like to thank dr. Zoltán Lippényi for providing his critical feedback during the process of writing my thesis. Lastly I would like to thank my family and my girlfriend for their unwavering support the past five months and all of my respondents for their willingness to participate in my research.

## Abstract

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One contemporary social problem that has gained considerable attention the past decade is the problem of household debt. Due to the 2008 financial crisis and the expansion of credit markets, (semi-)government bodies have paid increasing attention to addressing overindebtedness through debt advice in many European countries. In the Netherlands, the growing amount of household debt is accompanied by high societal costs. Practitioners in the sector of debt advice stress the need of an integrative approach between stakeholders in order to address this problem. Widespread digitalization of (semi-)government bodies and an increasing number of ICT-enabled social initiatives may hold the answer to facilitating in such an integrative approach to addressing household overindebtedness. Whereas digitalization of government bodies and ICT-enabled innovations have been well documented, much less is known about development and adoption of ICT-enabled innovations use in organizations providing debt advice. As such, this thesis is devoted to understanding what explains debt advising organizations' willingness to develop or adopt ICT-enabled innovations. Based on the Resource-Based View, the Institutional Perspective and scientific literature on organization innovation capability, a theoretical model is proposed that explains how we can understand debt advising organizations' willingness to adopt or develop ICT-enabled innovations. In order to assess the extent to which the expectations hold, 18 interviews with experts from debt advising organizations in 8 European countries were conducted. The results of this thesis suggest that organizations providing debt advice base the development and adoption of ICT-enabled innovations on competitive pressures on the one hand, and social environmental pressures on the other. In addressing competitive pressures, these organizations develop and adopt ICT-enabled innovations in order to enhance organization efficiency and organization-specific value. In addressing social environmental pressures, these organizations develop and adopt ICT-enabled innovations in order to meet cultural expectations. However, they often find themselves constrained in developing their ICT by legal mandates and negative side-effects of digitalization. In addressing competitive pressures and environment pressures, debt advising organizations to some extent promote their organization innovation capability through organization learning on ICT-enabled innovations. This is done by connecting to knowledge institutes, by organizing meetings and by organizing reward and award systems related to ICT-enabled innovations. Ultimately, this thesis shows that organizations providing debt advice want to improve their service provision and organization efficiency using ICT-enabled innovations, while being constrained by legal mandates and side-effects of ICT-enabled innovations use on vulnerable citizens.

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# 1. Introduction

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## 1.1 General Introduction

One issue that has gained considerable attention in western European countries in the past few decades is the problem of increasing household debt. As a consequence of the financial crisis and the expansion of credit markets average levels of household overindebtedness have steadily increased (Chmelar, 2013; Bouyon & Musmeci, 2016). A 2013 international comparative report on European debt advising organizations concluded that, according to stakeholders, situations had worsened in nearly all countries (Alleweldt et al., 2013). Overindebtedness is a social problem that comes about through different types of payment arrears from water, electricity and gas bills to household mortgage and credit card debt. Many western European and North-American countries have different approaches on how to address issues of overindebtedness on an institutional level (Korczak et al., 2016). Organizations have taken on the role of providing services to overindebted households. Some organizations engage with overindebted individuals and households in order to clear their debts. Other organizations provide general debt advice to their target population in order to prevent households from accumulating bigger debts.

In the Netherlands, two factors have contributed to an increased awareness of overindebted individuals and households and a call for improvement of debt advice and signalling of groups at risk of becoming overindebted. First off, the size of the problem and related costs for society as a whole. A 2011 report on the costs and benefits of debt advice (one year before the introduction of the law on municipal debt counseling) found that approximately 980.000 households (13% of the Dutch population) have an aggravated risk of getting into problematic debt, of which 76% has at least light debts (Aarts et al., 2003). This group of households generates a little over one billion euros of debt-related costs. Of these costs, nearly 52% comes at the expense of the municipalities, 2% comes at the expense of the creditors and 47% comes at the expense of the rest of society. For municipalities, a large part of these costs come about through social security payments, administrative costs and reintegration trajectories. For society, a large part of debt related costs comes about through unemployment of the overindebted group and costs for sickness absence. In comparison, in the UK the average costs per debt problem to the public have been estimated to be over £1.000 (Pleasence, Buck, Balmer & Williams, 2007). Secondly, there has been an increasing interest in the lack of an integrative approach between organizations in the debt advisory sector to addressing overindebtedness (Van der Lans, 2011). Overindebted households often have arrears in payments for multiple private and semi-public organizations collecting credit. These organizations pressure overindebted people to repay their debts through their own communication channels. The lack of integrativeness of communication channels between these organizations complicates repayment processes for debtors, often resulting in the debtors experiencing stress. As such, a nation-wide understanding of the system

of debt advice and proper (anonymized) information sharing between (local) government organizations, creditors and intermediaries is desirable according to policy makers (Jongsma et al., 2016). Relating to this view of professionals on how the problem of overindebtedness needs to be addressed is that there's been a change in professional views on overindebted people and households. Recent literature on psychological effects of financial problems and debt influenced the views of policymakers on this social group (Geuns, Jungmann & Anderson, 2016). A book by Mullainathan & Shafir (2013), is an exemplary work of this movement, that explains the stress experienced by people with financial problems as a lack of mental energy. According to the authors, poverty makes people less aware of their problems and makes them more forgetful and impatient.

The lack of an integrative approach by organizations in the field of debt advice and changing perceptions on overindebtedness by professionals sparks the interest for innovative methods to tackle the societal problem of household overindebtedness. The late 19th and early 21st century are characterized by widespread digitalization. Societal digitalization is accompanied by development of information and communication technology (ICT) and the use of ICT is prominent in many types of organizations, be it public organizations or private firms. ICT may improve inbound logistics, operations, outbound logistics, marketing and sales and services (Porter & Millar, 1985). For private firms, ICT leverage may lead to competitive advantage (Pavlou & El Sawy, 2006; Tippins, Sohi, 2003). Within public organizations, ICT may improve efficiency, quality of service provision, and according to some, may result in the emergence of new governance functions (Dunleavy, Margetts, Bastow & Tinkler, 2006). Earlier research on ICT-enabled social innovations found that these ICT-enabled innovations contribute to better coordination among citizens and social service actors, encourage active inclusion and provide support to care practices of communities and can transform service delivery models through better integration between employment and life-long learning services (Misuraca, Pasi, Abadie, Kucsera & Virginillo, 2017). The same research found that these ICT-enabled innovations may be incremental, sustained, and potentially disruptive in terms of their effect. Additionally, the rise of computer network technology has allowed the development of computer-based learning, such as e-learning in pedagogics (e.g. Garrison, 2011) and mobile devices and applications use in healthcare (Ventola, 2014). This technology, which delivers information and instruction to individuals provides consistency, reduces delivery cycle time, increases convenience, reduces information overload, improves track and lowers expenses for both users and practitioners (Welsh et al., 2003).

Taking this knowledge into account, the expansion of ICT functions can be regarded as potential means to facilitate in developing an integrative approach in the debt advisory field and the development of financially educating overindebted citizens and citizens at risk of becoming overindebted. As such, these developments may improve prevention methods, service provision methods, and communication and administration channels.

**1.2 Research goals**

This master’s thesis is devoted to gaining an understanding of debt advising organizations’ willingness to either develop, or adopt ICT-enabled innovations. As such, this research sets out to discover what ICT-enabled innovations are currently being adopted and developed by debt advising organizations and understanding why these organizations choose to develop or adopt ICT-enabled innovations. In this regard, this research takes both an exploratory and an explanatory approach.

In determining what knowledge is required for accomplishing these research goals three research question have been formulated (Verschuuren & Doornewaard, 2015). A descriptive research question has been formulated in order to acquire knowledge about what is currently being done with regard to ICT-related innovations in the debt advisory sector internationally. An explanatory question has been formulated in order to address understanding of why and when organizations choose to develop and adopt ICT-enabled innovations. Finally, a policy advice question has been formulated in order to provide recommendations to policymakers and ICT developers in the field of debt advice and learning from ICT-enabled innovations being adopted and developed internationally. The research questions are presented in table 1.

*Table 1. Research questions postulated in order to address the research problem.*

| <b>Research question</b>      |  |
|-------------------------------|--|
| <b>Descriptive</b>            | What ICT-enabled innovations are being developed and adopted by organizations providing debt advice internationally?   |
| <b>Explanatory (in-depth)</b> | How can we understand debt advising organization willingness to adopt or develop ICT-enabled innovations?  |
| <b>Policy recommendation</b>  | What are important considerations for policymakers and ICT developers in the debt advisory field with regard to developing and adopting ICT-enabled innovations and what practical implications does taking an international approach to exploring ICT-enabled innovations hold? |

In order to comply with the explorative approach of this research, the research itself was conducted internationally. This reasoning follows from theory on Diffusion of Innovation and international policy exchange. According to the diffusion of innovations theory by Rodgers (2010), an innovation in itself, communication channels, time and social systems influence the diffusion of innovations in networks. Scholars of (international) policy exchange argue that growing global economic pressures increased the need to look abroad for practice and policy, and rapid growth in communication types has made it easier to exchange ideas and knowledge since the 1980’s (Dolowitz & Marsh, 2000).

This research was carried out in organizations in a subset of European countries. These countries are Austria, Belgium, Denmark, Finland, Iceland, the Netherlands, Sweden and the United Kingdom (UK). These countries have been selected based on two requirements. First, organizations have been incorporated when the governments of these countries score high on e-government rankings (United Nations, 2016). Not all organizations providing debt advice are government organizations, nor may they be directly connected to government organizations. However, Marche & McNiven (2003) argue that governments harbour the notion of governments as lead user, being a kind of living demonstration for private organizations and other-level governments. Countries of which governments score high on e-governance may therefore be expected to have similarly developed progression in terms of ICT in niche sectors, such as debt advice. Examples of countries of which their governments score high on their level of e-governance are the United Kingdom and Finland. Second, relating to the lack of an integrative approach, a high level of integrativeness of the debt advisory sector is considered desirable (Alleweldt, 2013; Giaux, Jungmann & Sol, 2016). As such, organizations have been selected when debt advice in that country scores high on the integrativeness of approach to fighting overindebtedness. Examples of countries of which the debt advisory sector is high on their level of integrativeness are Austria and Iceland.

In order to address the exploratory aspect of this research and to gain an understanding of why debt advising organizations choose to adopt ICT-enabled innovations interviews with 18 experts from organizations providing debt advice in their countries were held and analysed using the Constant Comparative Method (Glaser & Strauss, 1967). Specifications of the types of debt advising organizations incorporated in this research is provided paragraph 1.4. A theoretical framework has been constructed in order to explain why organizations providing debt advice want to develop and adopt ICT-enabled innovations. The theoretical framework is built on three specific theories: the Resource-Based View, the Institutional theory and Innovation Capability. The theoretical framework will be discussed further in chapter 3 of this thesis.

### **1.3 Scientific relevance**

Organization innovation development and adoption has been of great interest to scholars in the past decades. Frambach & Schillewaert (2002) provide a summary of the nature of innovations, its adoption and its acceptance within organizations. The authors developed a model that explains how organizations perceived innovation characteristics, environment influences and structural organization characteristics affect organizations innovations adoption. A systematic review on the literature of organizational innovation has been provided by Crossan & Apaydin (2010), who argue that leadership, managerial levers and business processes influence innovation both as a process and as an outcome. Much of the research reviewed takes a managerial approach. With regard to ICT adoption, Jeyaraj, Rottman & Lacity (2006) found that top management support, external pressure, professionalism of the information unit and external information sources are the best predictors of ICT adoption by

organizations. This review, however, only applies to the adoption of structural ICT in organizations and therefore doesn't apply to the wider definition of ICT-enabled innovations used in this research (which is discussed in paragraph 1.4).

Research on ICT innovations adoption and development have largely been conducted in private sector firms (e.g. Jeyaraj, Rottman & Lacity, 2006) and although some research has attended to innovation capability of public sector organizations (Borins, 2001; Damanpour & Schneider, 2009), ICT innovations in organizations providing debt advice have not been discussed in scientific literature. Similarly, academic research on debt advice and debt advising organizations isn't as prominent (Collins & Orton, 2010). Although laws have been made to attend to issues of overindebtedness and insolvency in several European countries since the 1990's, the larger share of research that has been carried out is done by local and national governments, and private sector organizations. Most academic research that has been published is of economic nature and stresses the trends in growing consumer debt in European countries (e.g. Finocchiaro, Nilsson, Nyberg, Soultanaeva, 2011). Research on the effect of debt advice specifically is also largely non-academic (e.g. Pleasence et al., 2007). No academic research has been done on adoption and development of ICT-enabled innovation in organizations providing debt advice specifically.

In order to advance knowledge on technology use in the debt advisory sector this research takes a first step in understanding ICT-enabled innovation adoption and development in the organizations providing debt advice from a sociological perspective. This research combines sociological theories on market pressures, environment pressures and innovation capability in order to provide a multi-dimensional framework for understanding ICT-enabled innovation development and adoption in (semi-)public and (semi-)private organizations providing debt advice.

#### **1.4 Debt advising organizations & ICT-enabled innovations**

Before proceeding to the theoretical framework it is useful to clarify two key recurring themes in this research. The first relates to what organizations provide debt advice and what type of advice they provide. The second relates the concept of ICT-enabled innovations.

##### *Debt advising organizations*

Several types of organizations provide debt advice (Alleweldt, 2013). Four types of organizations providing debt advice have been taken over from Alleweldt et al.'s typology<sup>1</sup>. The first type of organization is the non-governmental organization (NGO). These are non-profit organizations, or charities. Some of these organizations are specialized in debt advice. For other organizations debt advice is one of several services. NGO's often have a national or even international scope of coverage.

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<sup>1</sup> Alleweldt et al. (2013) distinguish five types of organizations providing debt advice. Due to the smaller amount of organizations in this research, full private debt advising organizations have not been incorporated in this research.

Secondly, there are consumer organizations. These organizations usually cover a broad range of consumer protection issues and consumer organizations discussed in this research attend to financial education with regard to particular features, such as debt advice. The consumer organizations incorporated in this research all have a national scope. Thirdly, there are public service organizations, or municipal services. In some countries, such as Sweden and the Netherlands, local authorities are legally bound to provide debt advice services. Lastly, there are (semi-)public organizations at some distance of public administration. These are often partially or indirectly publically funded and usually receive part of their funding from other (private) organization membership.

The organizations incorporated in this research were selected from 8 countries. For a discussion on selection criteria of the countries selected see paragraph 1.2. Table 2 provides a list of respondents, the country in which the organization is situated, the type of organization they work, and organization types. An overview of organization types and the countries they are situated in, see table 3 in paragraph 3.2.

*Table 2. Respondents interviewed per organization type and country.*

| <b>Organization type / Country</b>  | <b>AT</b> | <b>BE</b> | <b>DK</b> | <b>FI</b> | <b>IS</b> | <b>NL</b> | <b>SE</b> | <b>UK</b> |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>NGO/Charity</b>  | -         | -         | -         | -         | -         | 1         | -         | 2         |
| <b>Consumer organization</b>  | -         | 2         | 1         | -         | -         | 2         | -         | -         |
| <b>Public service organization</b>  | -         | -         | -         | -         | -         | 1         | 1         | -         |
| <b>(indirectly/partially) Publically funded at some distance of public administration</b> | 1         | 1         | 1         | 1         | 1         | 3         | -         | -         |

*Debt advice*, as a concept, is loosely defined. Collins & Orton (2010) broadly define *debt advice*, or *debt counseling*, as being generally comprised of services that provide information, advice and guidance to individuals dealing with debt problems. As was explained earlier, organizations and countries differ in the services they provide. Using the definition by Collins & Orton allows for the inclusion of ICT-enabled innovations both in intensive debt advice provided by professionals and volunteers and ICT-enabled innovations in broad financial education and budgeting advice to overindebted people and people at risk of becoming overindebted.

The organizations that have been incorporated in this research vary widely in the services they provide (Alleweldt, 2013). Some organizations provide debt advice to a larger share of their population on different topics. Consumer organizations, for example, often offer several types of advice relating to administration of household income, savings and expenses. These organizations provide information to households on how to manage their finances and inform households on

budgeting or laws and legislation. Innovation for these organizations may entail development of prevention and educative methods. Other organizations engage into closer contact with their recipients. They may facilitate arrangements and legal procedures between debtors and creditors. This branch of debt advice is often provided by public service organizations (e.g. in the Netherlands & Sweden) and by NGO's or charities (in the United Kingdom). As such, they may have developed ICT-enabled innovations to attend to communicative and administrative processes. Professional debt advisors and volunteers may engage into personalized debt advice and may make smart use of (mobile) applications.

#### *ICT-enabled innovations*

The concept of ICT-enabled innovation consists out of two components; information and communication technology (ICT) and innovation. ICT is a broad term, which refers to applied computer systems – both hardware and software - and often including networking and telecommunications, usually in the context of a business or other enterprise (Lunt et al., 2008). Innovation can be defined as “the production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and establishment of new management systems’ (Crossan & Apaydin, 2010). Innovation, according to Crossan & Apaydin, is therefore both a process and an outcome. The concept is not limited to either innovations conceived or developed by the organization itself, or innovations adopted from other organizations or inspirational sources. In other words, innovation refers both to development and adoption of products and services by organizations.

Many present day technological developments include mobile software applications and online service provision, intended for overindebted end users of a service. On the other hand, technological developments may also relate to the development of communication and administrative processes within and between organizations providing debt advice. The definitions provided above allow for both types of innovations. Combined, ICT-enabled innovation captures the development and adoption of new methods of production of a value-added novelty brought about by ICT *in* or *by* organizations providing debt advice (for an overview of the ICT-enabled innovations encountered in this research, see paragraph 4.1).

## 2. Theoretical Framework

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Organizations are embedded in their social and institutional environment. They interact with humans and other organizations. Debt advising Organizations have varying goals, and use various means to achieve these goals, as was discussed in paragraph 1.4. Some of these organizations solely offer advice to debtors, others offer advice to the general population, such as charities and consumer organizations. Others are situated closer to their overindebted end-users and attempt to mediate between debtor, creditors and other stakeholders, such as public service organizations. While these organization types may be similar, in the goal that they want to provide service to overindebted individuals, they differ mainly in terms of accountability, target population and funding. Also, organizations in the field of debt advice are increasingly influenced by attention to EU wide increases in households debts and arrears (Dubois, 2012). Organizations providing debt advice therefore have varying reasons for investing in or choosing to adopt IT related innovations and developments.

In this chapter I elaborate on three theories that explain to what extent organisations are willing to adopt and develop ICT-enabled innovations. First, I discuss the Resource-Based View of organizations, focusing on use of resources in organizations that are (partly) situated in a competitive environment. While all organizations compete with other similar public service organizations in their environment to a certain extent, some organizations are situated in a more turbulent competitive environment. Examples of these organizations are charities and (semi)public NGO's and charities receiving funding from corporations and banks. Second, I discuss the Institutional Perspective, focusing on organizations and their need to acquire and maintain legitimacy through environmental pressures. These pressures apply to all organizations. However, some organizations, such as public service organizations, are expected to more explicitly elaborate on their institutional environment when it comes to developing and adopting ICT-enabled innovations. In the last paragraph of this chapter I discuss innovation capability and organization learning factors that enhance organizations innovation capability. Innovation capability differs per organization and is expected to be enhanced in order to improve learning, also on ICT-enabled innovations.

Together these theoretical expectations form a conceptual model of what influences debt advising organizations' willingness to innovate or adopt ICT-enabled innovations in three dimensions; horizontal influences, the Resource-Based View; vertical influences, the Institutional Perspective; and within-organization innovation capability. The model is depicted in figure 1. In the results section of this research the model is elaborated on with regard to the findings of this research.

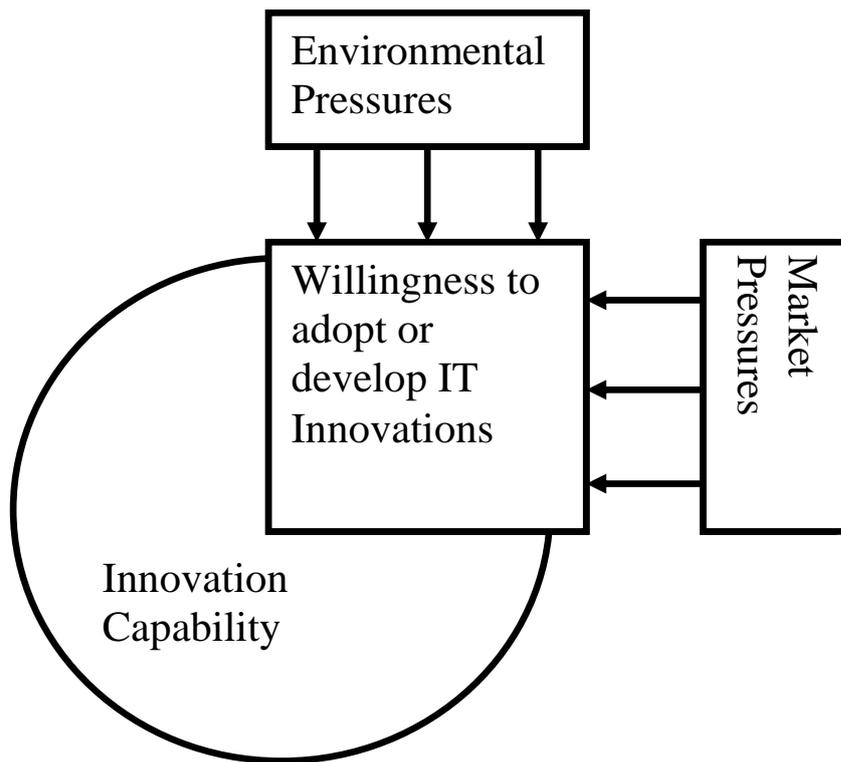


Figure 1. *Conceptual model of environmental pressures, market pressures and within-organization innovation capability on organizations' willingness to adopt or develop ICT-enabled innovations.*

## 2.1 The Resource-based view

Organizations that are situated in a market with competing organizations aim to adapt with respect to their service in order to sustain their existence. Adopting ICT-enabled innovations and developments may facilitate sustained competitive advantage over other organizations. The Resource-Based View (RBV) explains how competitive advantage is gained, and sustained, when organizations identify and use valuable resources at their disposal to their advantage (Barney, 1991). Organizations will therefore attempt to identify valuable resources and use them in order to gain and sustain competitive advantage over organizations in their environment. More specifically, the Resource-Based View states that competitive advantage can be sustained when the resource is; valuable; heterogeneously distributed across competing firms; and not perfectly mobile. Research by Kozlenkova, Samaha & Palmatier (2014) proposes four features of resources that allow for it to add to organizations competitive advantage. In order for organizations to gain and sustain competitive advantage resources should allow for the development and implementation of strategies that lower costs and increase revenues. Secondly, the innovation should be controlled by a small number of competing organizations. Third, the innovation should be non-imitable for other competing organisations. And lastly, organizational structure and processes should support the innovation.

Some organisations developing debt advice methods are situated in relatively competitive environments. It's important to note that sustained competitive advantage, as discussed in the Resource-Based View, in the field of debt advice, doesn't refer to the amount of profit that is made by an organization, but to the sustained relevance for existence of the organization. Debt advising organizations, whether they are funded by governments, corporations, or by means of donations need to hold up to similar organizations in their environments. Organizations providing debt advice are expected to compete over their customers. They obtain reputation by helping out a larger number of overindebted households in shorter time periods and with better quality of service. Organizations that don't meet up to the quality of service delivery and minimization of costs, according to the Resource-Based View lose out on their value and may eventually be pushed out of the market by similar organizations. The most important feature of the resource; value, should be interpreted as the value the resource adds to the organization in staying a relevant actor in the field of debt advice in a country or region.

Organizations providing debt advice may choose to develop or adopt certain ICT-enabled innovations when the functionality of the innovation adds considerable value to the service provision of these organizations. They will choose to develop or adopt ICT-enabled innovation when they are expected to allow for the development and implementation of strategies that lower costs and increase revenues, while they are difficult to imitate, or substitute. Since debt advising organizations are influenced by competitive pressures, these organizations are expected to adopt ICT-enabled innovations when they add to the efficiency of the organization. Relating to Kozlenkova et al.'s (2014) last feature of valuable resources for competitive advantage, it was also expected that debt advising organizations in competitive markets will adapt their organization structure and processes to support the innovation.

Although information technology can be a source of temporary competitive advantage (Powell & Dent-Micallef, 1997), some scholars argue that it cannot be a source of sustained competitive advantage as IT innovations are inherently mobile and may thus only lead to temporary competitive advantage (Mata, Fuerst & Barney, 1995). If ICT is considered a resource for competitive advantage, it should therefore be an ICT-enabled innovation that has either been adopted from other organizations or is expected to be adopted by other organizations in the near future. It is therefore expected that organizations don't hold on to specific rare, non-imitable, non-substitutable ICT-enabled innovations. In other words, ICT-enabled innovations were expected to be mobile within their environment. This is not to say that ICT-enabled innovations can't be a resource for temporary competitive advantage. When organizations newly develop ICT-enabled innovation this innovation may temporarily increase competitive advantage and profit in terms of relevance for existence for a limited duration of time.

## 2.2 The Institutional Perspective

In this paragraph, the Institutional Perspective is discussed. The Institutional Perspective provides for an understanding of environmental influences that pressure organizations to change. The Institutional Perspective, developed by Scott (2001), states that aside from production and task-related information, the social and structural forces in the environment of the organization shape organization structures. The Institutional Perspective views organizations not just as production systems, but rather as social and cultural systems. The Institutional Perspective states that innovative practices that improve organization specific value to organizations become legitimized in their environment. Over time, the newly developed practice, or in this case ICT-enabled innovation, will become normalized in the environment. In order to maintain their legitimacy, organizations will adopt innovations from their environment and as such, organizations will tend to become similar. Ultimately, the innovative practice at hand will have become embedded and failure to adapt to the innovation will be seen as negligent by the environment, in this case by other debt advising organizations and society.

Over time, organizations will adopt other organizations structures and forms because they are legitimized, even if the structure or practice no longer increases value. This process is guided by means of three mechanisms; coercive isomorphism, normative pressures, and mimetic processes (DiMaggio & Powell, 1991). Coercive isomorphism is a process that forces a population of organizations to resemble other organizations that face the same set of environmental conditions and comes about through other organizations and society's cultural expectations. These pressures may be legal, governmental, or financial mandates. Normative pressures come about through similar attitudes and approaches of professionals in, and in close proximity to, organizations. Norms that are developed in education are entered into organizations and, as such, organizations will become more similar. Mimetic processes occur in times of high uncertainty and result in copying of successful structures and innovations. Organizational models and innovations are diffused through employee migration or by consulting firms. Powell and DiMaggio found that the tendency of organizations to become similar to other organizations increases when organizations are highly dependent on the institutional environment; when organizations are situated in highly uncertain environments and have ambiguous goals; and when organizations are largely dependent on professionals (assuming that these professionals have similar educational backgrounds).

Debt advice organizations are situated in an environment of actors and stakeholders that act as, or represent creditors and debtors. They have a public duty towards society. Citizens in social welfare states have rights to assure them of social benefits and assistance in solving their financial issues and, as was explained earlier, debt advising organizations are influenced by environmental cultural and legal pressures and alerts of growing EU households debt and arrears (Dubois, 2012). According to Institutional Perspective, changes in the institutional environment of debt advice organizations pressure them to constantly legitimize their actions to this environment. Investing time and effort in

innovating with respect to ICT is thus expected to be a result of environmental pressure to change. Debt advising organizations are therefore expected to adopt ICT-enabled innovations because the organizations environment, and society's attitude towards overindebtedness, pressured the organizations to adopt these innovations. In relation to these cultural expectations, earlier attempts to explore practices on debt advice have been made and exemplify an integrative approaches to debt advice (Giaux, Jungmann & Sol, 2016). This integrative approach holds that professional debt advisors and creditors engage in integrative cooperation, adjusting business processes to add to other stakeholders, on solving cases of overindebtedness. Organizations engaging in integrative cooperation with stakeholders in the process of debt advising processes, in line with expectations from the Institutional Perspective, are expected to have structured their ICT add to this cooperation or have a desire to do so.

As was mentioned earlier, overindebtedness has gained considerable attention in many countries, including the UK and the Netherlands (Bouyon & Musmeci, 2016). The increased awareness on the matter of overindebtedness increased the need to provide better financial advice to households and better debt advice to overindebted households (Collins & Orton, 2010). According to the logic the Institutional Perspective the increase in awareness of the problem increases the uncertainty of the environment, which according to theoretical expectations should increase similarity of these organizations. Debt advising organizations are thus expected to be similar to each other in terms of structure, culture, advice practices, and technology. As such, they are expected to look for similar ICT-enabled innovations. Other sectors, such as the education sector and healthcare sector, have seen growing interest in computer-based learning (e-learning) (e.g. Garrison, 2011; Ventola, 2014). The rise in computer-based learning is expected to be the same for debt advising organizations and, as such, they are expected to develop or adopt ICT-enabled innovations that address societal expectations on how to address household overindebtedness. They are thus expected to develop and adopt ICT-enabled innovations addressing the population of overindebted citizens and households and will opt for innovations that deal best with cultural and societal expectations. In other words, they will develop and adopt ICT-enabled innovations in order to address the contemporary social problems of their society.

### **2.3 Innovation capability**

Whether organizations choose to adopt ICT-enabled innovations based on a competitive viewpoint, or based on an environmental viewpoint, within-organization processes also play a role in organizations' willingness to develop or adopt technological innovations. Research on organizational performance suggests that organizational learning is a key indicator of ICT competence (Tippins & Sohi, 2003). Earlier research found that organizations must be innovative in order to survive in volatile environments (Johnson et al., 1997). Management literature has found several factors to be of importance for organization innovation capability (Calantone, Cavusgil & Zhao, 2002). Calantone and colleagues argue that learning orientation is essential for innovation capability as it leads to enhanced firm performance. Diffusion of innovations, which was shortly introduced in the introduction of this research, brings about innovation capability (Rodgers, 2010). Rodgers distinguishes five stages in the innovation adoption process; the knowledge, persuasion, decision, implementation and confirmation stages. In the first two stages, organizations learn about the innovation at hand. In the third stage the organization decides to either reject or accept the innovation, and in the last two stages the organization looks for ways to implement the innovation. Debt advising organizations that seek to improve their advice and internal processes are therefore expected to search for ICT-enabled innovations. Whether ICT-enabled innovations are adopted will be influenced by previously discussed public pressures (Institutional Perspective), competition (Resource-Based View). Aside from institutional and market pressures, organizations strive to increase their innovation capability in order to meet up to their environments.

Learning orientation is primarily achieved through four distinct managerial features (Calantone, Cavusgil & Zhao, 2002). These concepts are commitment to learning, shared vision, open-mindedness and intra-organizational knowledge sharing. Commitment to learning refers to the degree to which an organization values and promotes learning. Shared vision refers to organization focus on and organizations members unanimity on learning. Open-mindedness refers to the willingness to critically reflect on operational routines and the readiness to accept new ideas, primarily by organization management and is represented in the organizations culture. Intra-organizational knowledge sharing, or within-organization knowledge sharing refers to beliefs and routines related to the spread of learning among sub-units in organizations.

Organizations providing debt advice are situated in volatile environments, they are expected to adhere to within-organization learning on ICT-enabled innovations. As such, they will invest resources in order to increase commitment to learning, shared vision, open-mindedness and intra-organizational knowledge sharing on ICT-enabled innovation adoption and development.

Furthermore, research on public sector innovations found that several factors promote public sector innovativeness (Borins, 2001). A traditional view on public sector innovation is that innovation comes about in times of internal crisis. Also, strong top management support is seen as key factor for predicting public sector innovation (also: Damanpour & Schneider, 2009). Thirdly, the use of reward and award systems are said to predict innovation in public sector organizations. A fourth factor that is proposed is the definition of jobs in public sector organizations, related to job autonomy. When jobs are narrowly defined, they don't allow for innovative practices. When they are more loosely defined, these jobs allow for more innovativeness on the work floor. Loosely defined jobs, however, are usually not very common in public sector organizations. Lastly, there is the factor of learning from outside the organization. Organizations that connect well to private organizations, universities and other organizations are more suited to adopting innovations. For (semi-)public service organizations providing debt advice, the utilisations described above, namely internal crisis, strong top-management support, reward systems, job autonomy and investment in connecting to private sector organizations and universities, are expected mentioned by organizations in increasing organization learning on developing and adopting ICT-enabled innovations.

## **3. Data & Methods**

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### **3.1 Research design**

In understanding debt advice organizations' willingness to adopt ICT-enabled innovations, this research takes qualitative approach. The decision has been made to do in-depth interviews with experts in ICT and debt advice innovations in these organizations. One of the main advantages of using a qualitative approach to research is that new relevant subject of matter may emerge (Baarda et al., 2013). In order to assess what ICT-enabled innovations debt advice organizations develop and adopt and what factors contribute to their willingness to develop or adopt these ICT-enabled innovations, fully structured interviews don't provide for the desired level of depth, as they don't allow for an equal level of interpretation for the respondent (Bryman, 2012). Therefore, the choice has been made to use semi-structured interviews. A total of 18 interviews were carried out. The interviews were open to the extent that several topics had to be addressed. Probing questions on these topics were used to obtain valuable data on a set of topics. These topics are discussed in paragraph 3.4. An adaptation of the Constant Comparative Method was used to analyse the data (Glaser & Strauss, 1967). The Constant Comparative Method requires initial and secondary data collection and analysis and usually entails developing expectations based on the initial data collection. In this research, the initial data collection phase was replaced by the literature study provided in the theoretical framework chapter. The Constant Comparative Method was used because it allows for identifying new concepts, while maintaining the theoretical structure. Coding of the data was therefore mainly in line with the theoretical framework and new concepts were added when they recurred frequently.

All of the interviews were done by telephone or skype call, which was motivated by the fact that the research sample is international. The decision to do short 30 to 40 minute interviews has been based on two restraints. First, the total amount of time available for doing the research was 5 months and the difficulty of establishing international contact has been taken into account. Also, respondents were required to be experts in their fields and as such, often occupied high positions within their organizations, limiting their flexibility.

### **3.2 Research Population**

The research population of this thesis consists of managers and employees of a number of debt advising organizations. The organizations can be divided into four categories. These are NGO's and charities, consumer organizations, public service organizations and organizations at some distance from public administration being partially or indirectly publically funded. Each of the respondents was required to be involved in decision-making processes and have a good understanding of their organizations' vision. As these are expected to have an understanding of social conditions and their institutional environment, as well as within-organization structure and processes. Therefore a large

part of the respondents involved in the research were department or division managers of ICT and innovation related departments. A list of respondents, the type of organization they work for, and occupational status has been provided in table 3.

Table 3. *Overview of respondents, countries, organizations and organization types.*

| <b>Respondent</b> | <b>Country</b>     | <b>Organization</b>                 | <b>Organization type</b>                                |
|-------------------|--------------------|-------------------------------------|---|
| 1                 | The Netherlands    | NIBUD                               | Consumer organization                                   |
| 2                 | Austria            | ASB Schuldnerberatungen             | (Partially) Publically funded                           |
| 3                 | The Netherlands    | Municipality of Nijmegen            | Public service organization                             |
| 4                 | The United Kingdom | Stepchange Charity                  | NGO/Charity   |
| 5                 | The Netherlands    | NIBUD (2)                           | Consumer organization                                   |
| 6                 | Denmark            | Forbrugerrådet Tænk                 | Consumer organization                                   |
| 7                 | The Netherlands    | Financieel Paspoort                 | Charity/Citizens initiative                             |
| 8                 | Sweden             | Skellefteå Kommun                   | Public service organization                             |
| 9                 | Belgium            | Vlaams Centrum Schuldenlast         | (Partially) publically funded                           |
| 10                | Iceland            | Umboðsmaður skuldara                | (Indirectly) publically funded                          |
| 11                | Finland            | Takuu-Säätiö Guarantee Foundation   | (Indirectly) publically funded                          |
| 12                | Denmark            | Den Sociale Rethjælps Fond          | (Indirectly) publically funded                          |
| 13                | The Netherlands    | Plangroep                           | (Indirectly) publically funded                          |
| 14                | The United Kingdom | MoneyAdviceTrust                    | NGO/Charity   |
| 15                | Belgium            | CEBUD                               | Consumer organization                                   |
| 16                | The Netherlands    | NVVK                                | (Partially/indirectly) publically funded                |
| 17                | Belgium            | Wikifin                             | Publically funded (distance from public administration) |
| 18                | The Netherlands    | Municipality of Alphen aan den Rijn | Public service organization                             |

### 3.3 Topics

Prior to the interviews a topic list has been constructed in accordance with the theoretical expectations. The topics and their relation to the theoretical framework are discussed in this section. The topic list is provided in appendix A.

Respondents were asked to introduce themselves, the organizations they work for and their organizations goals and vision. Secondly, the organizations were asked about what ICT-enabled innovations they had currently adopted and three rounds of questions were asked, each relating to the theoretical expectations. After current ICT-enabled innovations had been discussed, or respondents

proceeded to discuss earlier ICT-enabled innovations or ICT systems in general, these were discussed. Lastly, future expectations on use of ICT-enabled innovations were discussed. In follow-up questions, the respondents were asked to explain the reason for the development of the ICT-enabled innovation at hand, relating to the three main theoretical concepts of this research.

Probing questions were used to gain better insight of decision-making with regard to ICT-enabled innovations and its relation to organization goals. In order to sustain the flow of the interview, they weren't asked in a particular order and were only probed when respondents did not bring them up themselves. The probing questions related to the three theoretical concepts of the conceptual model.

The first topic, ICT-enabled innovations as a resource to acquire or sustain competitive advantage, was triggered by asking questions about the size of the market, similar organizations (and citizens/social initiatives) and funding. These questions related to the theoretical expectations of the Resource-Based View (Kozlenkova, Samaha & Palmatier, 2014); the value-added, the rareness, the substitutability; and its imitability. Statements by respondents were coded when the benefits of ICT-enabled innovations added to the organizations value in comparison to other organizations in the market. In these statements, the requirement for them to be coded lies in the fact that organizations explicitly mention that the ICT-enabled innovation at hand is perceived as containing added value over services provided by other, similar organizations in the environment.

The second topic, ICT-enabled innovations as a means to acquire or sustain legitimacy by the institutional environment, was triggered by asking probing questions relating to the problem perception of debt advice (when the ICT-enabled innovation was targeted at overindebted people and households) and to the problem perception of organizational efficiency (When the ICT-enabled innovation was targeted at within-, or between-organization administration and communication processes). Also they were asked where they got the information for the development of the ICT-enabled innovation and they were asked who the organization accounted to in terms of end-users and stakeholder. The probing questions related to the three environmental pressures described by DiMaggio & Powell (1991); coercive isomorphism, normative pressures and mimetic processes. Questions to relate to coercive isomorphism were asked in order to relate to the societal problem perception of the respondents and in order to gain insight into who the organizations are accounting for. Closely related are questions relating to mimetic processes, which were asked in order to gain insight into uncertainty of the environment of debt advising in the country at hand and the copying of successful ICT-enabled innovations. Questions relating to normative pressures were asked to relate to organizations information and knowledge provision. Statements were coded when the ICT-enabled innovation was perceived to add value to the perception of the problem, related to the information provision or related to accounting to the organizations environment. Additionally, probing questions were asked in order to gain insight into the extent to which organizations engage in integrative approaches to debt advice with stakeholders.

Lastly, the topic of innovation capability on ICT-enabled innovations, was triggered by asking probing questions relating to organizational learning. These questions related to the theoretical expectations on within-organization innovation capability (Calantone, Cavusgil & Zhao, 2002); commitment to learning, shared vision, open-mindedness and intraorganizational knowledge sharing. Statements by respondents were therefore coded when commitment to learning, building a shared vision, promoting open-mindedness and intra-organizational knowledge sharing were deployed in order to improve innovation capability of ICT-enabled innovation. Questions about factors increasing public service innovation, such as reward systems, job autonomy and top-management support, were asked for only when they didn't mention them themselves, as it may have steered the respondents too much in their answers (Borins, 2001).

As a final question, the general explanatory research question on to what extent respondents' organizations are willing to adopt or develop ICT-enabled innovations was probed to the respondents in order to obtain an answer on respondents perceptions of innovative ICT use in their field of work.

### **3.4 Ethical considerations**

A short note should be made on ethical considerations. This research does not deal with particularly sensitive data. However, due to widespread attention for the issue of overindebtedness in some of the countries of the organizations researched, collected data should be processed with care, in order to prevent harmful consequences for the respondents. Accordingly, ethical considerations should be taken into account.

Considering the respondents, research should comply with four ethical considerations (Baarda et al., 2013). First, the respondents gave consent to the use of the data they provided and they were told that they can opt out of the research at any given time. Secondly, the respondents have been accurately informed on the goals of the research and the added value of their participation. From first to last contact optimal transparency has been pursued on the goals of the research. Respondents were offered a summary of the findings of the research. All of the respondents consented to this objective and all respondents received the summary. Thirdly, anonymity was guaranteed to all of the respondents. Lastly, participation in this research should not lead to negative consequences for the respondents. Therefore collected data has been processed with utmost care and several respondents, if requested, were asked to consent with quotations used.

### **3.5 Research criteria**

In performing a high quality research, optimal reliability and internal and external validity should be pursued. However, these criteria are typically explained based on quantitative research methods. In qualitative research four similar criteria assure the quality of a research. These criteria are credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985, in Bryman et al., 2012). Credibility equates to the concept of internal validity and refers to the extent to which we believe the

results. The purpose of qualitative research is to describe or understand phenomena from the respondents view. Only they can judge the credibility of the results. In maintaining optimal credibility for this research all respondents have been interviewed separately. Transferability refers to the degree to which the results of qualitative research can be generalized or transferred to other settings. The transferability of this researched was maintained by accurately describing the research context and by explicating the assumptions that are central to this research. Dependability emphasizes the need for the research to account for forever-changing context within which research occurs. Due to the context dependent nature of qualitative research reliability is difficult to obtain in comparison to quantitative research methods. Accordingly the research design and the research context have been described accurately and after some initial changes the same topic list has been used for all of the respondents. The final criterion, confirmability, refers to the degree to which the research results can be confirmed. Researchers should be able to critically evaluate the corroboration between the theoretical framework and the results in this research. Accordingly, the theoretical framework and the results sections have been linked using the topics of the research. Also, in order to allow for replication and evaluation of this research, interviews have been recorded and transcribed.

### **3.6 Data collection & analysis**

For this research, eighteen interviews were held with respondents from seventeen different organizations providing advice to overindebted citizens in eight countries. A considerable share of the organizations contacted was derived from Alleweldt et al.'s (2013) list of debt advising organizations. Organizations were initially contacted via e-mail. A smaller share of the organizations contacted was found through earlier respondents using a snowballing method. Respondents were asked if they had contacts in other similar debt advising organizations that fit the research population. Respondents were contacted by e-mail and all interviews were held by telephone or Skype. All of the interviews were recorded and transcribed. A part of the interviews was conducted in Dutch and has therefore been transcribed in Dutch. Citations and quotations from Dutch respondents were translated by the author of this thesis. The information that resulted from the interviews has been analysed by making use of NVivo 11 (QSR International, 2015). The analysis entailed coding parts of the text in order to quantify the concepts introduced in the theoretical framework. The analysis follows the approach of the Constant Comparative Method, as was described in paragraph 3.1. This approach leaves room for identifying concepts not, or not explicitly, discussed in the theory. As a result, new concepts have been identified that may prove to be useful for the development of new theories.

## 4. Results

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The results of the qualitative data analysis will be presented in this chapter. In line with the theoretical discussion, the results will be presented in three paragraphs, in accordance with figure 1. First, however, an overview of ICT-enabled innovations will be provided. Next, the findings on the role of competition on debt advising organizations' willingness to adopt ICT-enabled innovations is presented, relating to the Resource-Based View. In the third paragraph I present the findings on the role of the environmental pressures on debt advising organizations, which relates to the Institutional Perspective. Lastly, the findings related to organization learning of debt advising organizations are presented, relating to theoretical expectations on innovation capability.

### 4.1 ICT-enabled innovations

In this paragraph I briefly present the ICT-enabled innovations discussed with the respondents. No theoretical expectations were posed with regard to what types of innovations were to be encountered. However, as was stated in paragraph 1.2, organizations were selected from countries that score high on either the level of digitalization within its government or the level of stakeholder integration in debt settlement processes. An overview of ICT-enabled innovations developed and adopted by debt advising organizations is provided in table 3.

During the interviews respondents were asked to describe the most recent, and prospective use of ICT-enabled innovations developed or adopted by their organization. Respondents provided for a range of applications varying in terms of utility and functionality. From the findings, I distinguish 2 types of ICT-enabled innovative applications in organizations in the debt advisory field; the first being innovations in within-organization ICT structures; the second being mobile and web-based applications for professionals and overindebted end-users. Innovations in within-organization ICT structures can be separated into four categories; within-organization ICT system & debt advisor tools; integrated ICT systems with stakeholders; Integrated ICT system for clients and debt advisors; and country-level ICT databases.

Within-organization ICT systems innovation and debt advisor tools involve smart use of software application used in debt advising organizations. For example, a within-organization service which generates different scenario outcomes based on client statistics and local and national legislation for clients or debt advisors. Integrated ICT systems with stakeholders comprises ICT systems that allow quick access to information of debtors from stakeholders (e.g. banks and housing corporations) in debt settlement processes. The same goes for integrated ICT systems for clients and debt advisors, only for these two users. Country-level ICT databases comprise nation-wide databases holding client information. Mobile and web-based applications generally comprised tools for debt advisors (not bound to a specific organization) and applications for financial education and early signalling of

**Table 3.** Overview of ICT enabled innovations developed and adopted by debt advising organizations.

| Type of ICT-enabled innovation                                  | Organization   | Brief explanation   |
|---|--|---|
| <b>Innovation in ICT structures</b>                             |  |   |
| <i>Within-organization ICT systems &amp; debt advisor tools</i> | ASB Schuldnerberatungen – Austria  | Same nation-level ICT system for debt advisors in all 10 provinces. Pro: Everyone uses same system. Con: Organizations vary on province level, system grows too big.  |
| <i>Integrated ICT systems with stakeholders</i>                 | Stepchange Charity & MoneyAdviceTrust– United Kingdom  | Large scale decision logic systems used by advisors and clients. Calculates best debt settlement solutions for clients. Structural innovation involves adjustment to laws and legislation and efficiency development. |
|   | Debtors Ombudsman - Iceland  | Integrated ICT system with Ombudsman’s office, large corporations and banks. Allows for quick obtainment of client data.  |
| <i>Integrated ICT system for clients and advisors</i>           | Den Sociale Rethjælps Fond & Forbrugerrådet Tænk – Denmark<br>Municipality of Nijmegen – The Netherlands | Attempts to launch development of integrated ICT system with multiple partners and creditors (No integrated ICT system in place yet).   |
|   | Municipality of Alphen aan den Rijn – The Netherlands  | ICT system for use both by clients and advisors. Allows for better communication between vulnerable client and advisor. (in use for treatment of particularly vulnerable citizens – not in use for debt advice)       |
| <i>Country level ICT databases</i>                              | NVVK – The Netherlands   | Nationwide debt information system. Database development acquiring debt information of citizens in debt settlement process. (Cancelled, partially due to privacy legislation)   |
| <b>Mobile applications &amp; web based services</b>             |  |   |
| <i>Tools for debt advisors</i>                                  | NIBUD – The Netherlands  | Calculating tool for budget advice used by professional debt advisors in associated organizations. Contains e-mail and SMS coaching of clients.   |
|   | Skellefteå Kommun – Sweden<br>Den Sociale Rethjælps Fond - Denmark                                       | Calculating tool for budget advice used by professional debt advisors in associated organizations.  |
|   | CEBUD - Belgium  | Calculating tool for budget advice used by professional debt advisors in associated organizations.  |

|  |   |   |
|--|---|---|
| <i>Prevention: Financial education</i>                         | Financieel Paspoort (civilian initiative) – the Netherlands | Mobile application that takes financial information from a number of partners and provides them in an overview to users. Aimed for use by citizens having trouble keeping up their administration (in development)  |
|  | NIBUD – the Netherlands                                     | ICT-enabled web-based tool (Money plans) built for clients and volunteers advising overindebted citizens in communities. Two uses: 1. Assists citizens with monetary problems. 2. Improves sustained quality of service to clients by volunteers in financial administration. |
| <i>Prevention: Early signalling of overindebted households</i> | Takuu-Säätiö Guarantee Foundation - Finland                 | Realtime panel overview of income and expenses for citizens. (online discussion board in development)   |
|  | Wikifin - Belgium   | Number of financial education tools designed relating to citizens' life phases.   |
|  | Mentioned by a number of organizations.                     | No case identified - Prospective: Development of ICT-enabled early signalling methods (including use of Blockchain technology <sup>2</sup> and community level household data)  |

- a. ICT-enabled innovations were added when they contributed any type of innovation added the debt advice sector (for a discussion on what encompasses an ICT-enabled innovation see paragraph 1.4).
- b. Examples of basic web-based debt settlement information provision was not included in this overview.
- c. Prospective innovations mentioned by respondents who are not or are not planning to partake in the adoption of an innovation posed by other organizations than their own were not documented unless mentioned otherwise.

overindebted people. Early signalling involves signalling over households that are at risk of becoming overindebted (Kuiper & Fleuren, 2015). Information on these households may allow debt advising organizations to reach out to these households in order to prevent accumulation of problems. Notice that the total number of ICT-enabled innovations in the overview is not equal to the number of interviews held with respondents. This is due to the fact that some organizations mentioned that they used nor provided any use of ICT aside from basic databases, websites and phone, e-mail and chatting services.

## 4.2 Competitive Pressures

The findings of this research with regard to expectations on competition to some extent reflect the findings of previous research. First I discuss the added value of ICT-enabled innovations to debt advising companies in relation to competing profit organizations. Next, I discuss ICT-enabled innovations efficiency gain for organizations.

<sup>2</sup> (Blockchaintoepassingen Binnen de Overheid, 2017).

Sixteen respondents mentioned the need for ICT-enabled innovations to add value to the service delivered by their specific organization. Nine respondents discussed their organizations value in relation to that of other organizations in the field. While the funding of these organizations differed considerably, most of the organizations spoken to (save several examples) are recognized by the state as official debt advising institutes. None of the organizations spoken to makes profit of the hands of debtors. Five respondents stressed their preference for mobile applications and tooling devices not to be funded by for-profit firms and banks. The value of these mobile applications and tools comes about when they are free of use for the customer, no contributions are made to private organizations (such as banks) and, most notably, information of the customer isn't shared with third parties. With regard to a Belgian initiative to make an inventory of social ICT enabled initiatives, respondent 9 mentioned:

*"[...] A lot of banks and private sector firms are active in that regard and they want to be a part of that inventory. However, it proved difficult to assess what entails a productive inventory of tools and where commercial activities and advertisement come into play?"*

Non-commercial value is a value that is non-imitable for for-profit organizations as financial merits may decrease. These findings are in line with Kozlenkova and colleagues (2014) first and third feature of the Resource-Based View; the value and imitability of resources. While for-profit organizations providing debt advice to their clients may choose to develop mobile applications and tools, they will likely not imitate its freeness of use. On the other hand, not-for-profit debt advising organizations and citizen initiatives seek ways of developing and adopting tools through non-commercial means. This process proves difficult as organizations, whether they support non-commercially funded ICT-enabled innovations or not, are said to often take their hands of financial responsibility. Respondent 7 on difficulties he encountered in setting up the social initiative Financial Passport mentions:

*[A problem that we encounter is that] there are organizations don't feel responsibility for financing our cause. [...] Organizations say they want to facilitate in our development, however, it's not on my to-do list to facilitate in the development of citizens ability to cope with their finances independently."*

In another case, respondent 17 explains that his organization, Wikifin, being a publically funded consumer organization, shouldn't attempt to compete with ICT services banks and large organizations already provide. He stresses the need to continuously explore the market and identify gaps and fill them up with their own tools, which is where they add their value:

*"With our budgets it's of no use to compete with tools that are launched into the market with a lot of advertisement. Therefore, you have to look for gaps. Can we fill those? What competition is there? And what value can we add there?"*

When looking at ICT-enabled innovations with regard to (automated) administration and communication within and between organizations. Although all debt advising organizations, be they

organizations providing direct advice to clients in financial difficulties or providing indirect advice to clients at risk of becoming overindebted, point towards their lack of funding for developing ICT-enabled innovations, 15 respondents stressed the need of ICT development to improve organization efficiency. Innovating with regard to ICT was said to prevent duplication of data and duplication of processes. Especially in large organizations, such as Stepchange Charity and the MoneyAdviceTrust in the UK, where due to the size, teams and employees tend to develop similar roles. Modernizing and continuously developing ICT structure genuinely benefits these organizations efficiency. Respondent 4 mentioned:

*“The modernization is more about helping us become more efficient. Because we’re a charity we don’t charge our clients for our advice, for our help. For us, it is important that we can help more people.”*

In becoming more efficient, debt advising organizations may improve their service capacity, which in turn adds to the organizations competitive value. Organizations that obtain the greatest efficiency, through but not limited to, ICT-enabled innovations sustain their relevance for existence over similar (not-for-)profit debt advising organizations. These findings are in line with Kozlenkova and colleagues (2014) fourth feature of the Resource-Based View; organizations structure and processes support the ICT-enabled innovation. Several respondents from debt advising organizations mention the need to adapt their ICT to structure and processes in the organization. Organizations who are more dependent on private funding, for example from banks and corporations, mentioned this more often than (semi-)public service organization and consumer organizations. In the case of the Danish debt advising organizations Den Sociale Rethjælps Fond, improving service delivery may increase the financial shares social service organizations receive from money pools for social services by the Danish government as they become more efficient and thus attend to more citizens. As respondent 12 stated:

*“The government makes like a kind of a pool of money and with eleven organizations we have to share that money. [...] Most of our updates are on that we want to make better statistics. [...] We report what we do and how many clients we have and so on.”*

Funding differs per organization and per country, however most respondents report being (indirectly) funded by local or national government, or private sector firms (banks and corporations). Organizations situated in countries where municipalities or province departments are, by law, appointed to address household debt problems, more often deny the proposition of market competition.

With regard to expectations on temporary and sustained competitive advantage, findings are in line with earlier research. ICT-enabled innovations, be they applications and tools or developments of ICT systems, are very mobile and most organizations seek to develop either. Many innovations differ in their specific use and workings, but most of what is currently being used by organizations is relatively

widespread across countries. Social initiatives, like the case of Financial Passport, compete with one another in their search for attending public needs, funding and reach. These initiatives mostly differentiate from one another instead of offering equal services. These findings are in line with Mata and colleagues (1995) findings that ICT development is inherently mobile and may only lead to temporary competitive advantage.

Two respondents from organizations specifically denied the notion of direct competition with similar service organizations when asked. Rather, these organizations stressed the need to collaborate with organizations in the field in order to add to each other in their service provided. Consumer organizations seek to facilitate social initiatives exploring possibilities for ICT-enabled innovations in many countries in order to attend public needs. In addition to this matter, respondents mentioned engaging in the political arena of their country in order to increase funding for debt advisory services, although none of the organizations mentioned doing this explicitly for ICT-enabled innovations in debt advice exclusively. According to Respondent 9, Belgian politicians stress the need to develop online social work:

*“[The Belgian minister of welfare] finances a number of welfare sectors, among others debt advice. He stresses the need to develop online social work. Although this doesn’t apply for debt relief medication, it does apply to the policy area of welfare.”*

Summarizing the findings on competitive pressures, it was found that debt advising organizations structurally innovate with regard to ICT in order to improve organization efficiency to attain and maintain their market position. While funding differs per organization, innovating in ICT should hold that either the amount of clients served is improved, or quality of service is improved. These organization goals relate back to competitiveness in the market of debt advising organizations. Organizations have differing views on what addresses household debt best and strive to add their own value to the field. ICT-enabled innovations, in this regard, are used as resources to increase efficiency and ultimately maintain competitive advantage over similar organizations. This finding is in line with the Resource-Based View, innovating should add to organization value, which in practice translates to improving quality of services and responsiveness to debt advice demand (Barney, 1991; Kozlenkova, Samaha & Palmatier, 2014).

#### **4.3 Environmental pressures**

From the interviews with respondents, environmental pressures to a large extent explained organizations’ willingness to adopt or develop ICT-enabled innovations. Organizations’ problem perceptions vary considerably per country and depend on social conditions and societal issues in these countries. Social conditions of the country and large scale societal developments increase the need for becoming more efficient and develop more effective measures in order to attend to a larger proportion of society, as was interpreted of mentions by 15 respondents. This finding is in line with Scott’s

(2001) institutional perspective; social and structural forces in the organizations environment shape its structure. More specifically, they are in line with expectations on coercive pressures perceived by organizations (DiMaggio & Powell, 1991). Respondent 7 stressed the need to develop a Financial Passport, an overview of all of one citizens finances in a mobile application. He stresses that in comparison to a couple of decades ago keeping an overview of ones finances is becoming increasingly hard, especially for vulnerable citizens. Combined with the decline of social welfare benefits, this causes increasing financial difficulty for an increasing number of household; a problem that is mentioned by several other Dutch respondents.

Another prime example of social conditions influencing the need for development of ICT-enabled innovations is given by respondent 10 of the Icelandic Debtors Ombudsman. Due to the 2008 financial crisis, which affected Iceland severely, the Icelandic Debtors Ombudsman's office was established, which through state obligation is financed by large corporations and banks in Iceland, to develop its own ICT system in order to attend to the need of many citizens in a short amount of time. Respondent 10 stated:

*“In our organization [drastically developing IT] was the reason we were able to process all the applications we got. [...] In six months we had over 700 applications for debt medication in 2011<sup>3</sup>. [...] And in order to attend all of them we had to develop our own system here.”*

A third example is provided by the Danish and Finnish cases. Considerable attention is paid to youngsters financial education in Denmark, Finland and several other countries. Since youngsters are found to be very proficient in their use of mobile applications and tools, the need for developing ICT-enabled innovations for mobile phones was perceived as the most appropriate way to attend to public needs. As Respondent 6, of the Danish Consumer Council mentions:

*“[A project] is basically, they're trying to figure out how do we change the society through campaigns. How do we train young people not to take out debt they can't pay back? Can we maybe make some apps?”*

From these findings, it seems that organizations thus adapt to cultural expectations and are largely influenced by social conditions in their countries. Debt advising organizations thus seek to innovate with regard to ICT when, from their position and function, they can address societal expectations.

In discussing coercive pressures, references to legal and governmental mandates are being mentioned by 10 respondents. This is also where one of the biggest limitations in the adoption and development ICT-enabled innovations comes into play. In terms of prevention, many debt advising organizations adhere to systematic collection of household expenses by means of, among other things, housing,

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<sup>3</sup> Iceland has approximately 320.000 inhabitants.

water and electricity bills in order to identify households at risk of becoming overindebted; a method referred to as ‘early signalling’ (Kuiper & Fleuren, 2015). When data on these types of payments is transferred freely, and debt advice organizations are able to capture it in databases, prevention is arguably best developed. However, due to privacy legislation obtainment of data often requires individual consent. As a result, organizations willing to develop ICT functions that assist debt prevention using this method find themselves constrained due to this privacy legislation, as was mentioned by 10 respondents. Respondent 6 describes the problem as follows:

*‘We don’t have anything that’s automated yet and that’s because of the personal information. So the law wouldn’t really allow it. We can’t send personal information between organizations so we basically can’t automate it.’*

In this regard, organizations providing debt advice find themselves pressured in their objectives by legal mandates and as a result organizations opt to develop ICT structure or promote ICT for financial education practices.

A noteworthy mention to a development that is taking place in many western European countries is the increasing interest of a behavioural-scientific approach to debt advice; especially in developing debt difficulties prevention methods. Seven respondents from Belgium, the Netherlands and Finland mentioned their policy development to be influenced by behaviour-psychological research and several respondents directly stated that in adopting and developing mobile applications or online tools the behavioural-scientific aspect should be profound. This finding is in line with normative pressures perceived by organizations that come about through similar attitudes and approaches of professionals in, and in close proximity to, organizations (DiMaggio & Powell, 1991). One respondent mentioned in order for ICT applications or tools to be effective in personal debt advice, such tools should attend to the behaviour of clients and be based on behavioural-scientific research:

*“So actually, the IT aspect is but the technical side. However, the IT aspect should be based on behavioural sciences which can be built into[the tool or application].”*

Respondents in several occasions mentioned turning to other organizations for developing ICT structure and ICT-enabled innovations in their own organization. In line with expectations on normative pressures on organizations, three respondents mentioned turning to ICT systems in other job sectors. For example, the development of the ICT system in the Austrian ASB Schuldnerberatungen was copied from legal organizations in the same country. Three respondents mentioned looking internationally (e.g. the Debtors Ombudsman in Iceland & Takuu-Säätiö in Finland). Several respondents mentioned looking at other countries for policy on debt advice, of which a part contained use of ICT-enabled innovations. These development adhere to expectations regarding mimetic pressures in the debt advisory field (DiMaggio & Powell, 1991).

Debt advising organizations adopt and develop ICT-enabled innovations when it helps them achieve their organizations' goals. The organizations adapt their goals as a result of the environmental pressures discussed earlier. Causes for developments of ICT-enabled innovations depend on the problem perception of debt advising organizations and social conditions. Since overindebtedness is regarded as a growing societal issue in many Western European countries, collaboration between organizations is perceived as a means to attend this problem. In line with expectations with regard to inter-organizational collaboration as a means to develop ICT, 15 respondents stressed the need, and the tendency, of multiple parties to cooperate in developing ICT enabled innovations and adapting ICT structure to this cooperation (Giaux, Jungmann & Sol, 2016). Five of these respondents specifically mentioned the lack of an integrative approach. In line with the institutional perspective, collaboration between organizations in the field of debt advice in developing ICT enabled innovations holds that organizations perceive cooperation with regard to ICT-enabled innovations to allow them to meet cultural expectations. Respondent 13 states:

*“At some point a party will stand up or become dominant, on which we'll agree that they provide a communications platform for all stakeholders and users involved on which information can be shared. [...] Because twenty years into the future, it will be there.”*

A final remark should be on 7 mentions of negative consequences of digitalization and effects of ICT-enabled innovations in debt advice. These negative consequences relate to tension between debt advising organizations and their institutional environment; be it the end-users of debt advice, or stakeholders in the field. Respondent 12 mentioned organizations in the field of debt advice and other organizations related to the field in her country have different views on what captures the problem and as a result it's difficult to develop tools or applications for specific groups of end-users. Relating to these debtors, respondents 9, 13, 14, 16 and 18 specifically mentioned that, for vulnerable end-users, it is perceived undesirable to have too much digitalization as it complicates administrative tasks for these end-users. Respondent (13) elaborated in this and mentioned another downside of many organizations dealing with debt settlement digitalizing their front office:

*“When you have to go to the physical front office of one organization, then log into another, and then you're only allowed to e-mail a third organization. In operating, this becomes rather expensive. This an example of digitalization no one is waiting for.”*

Both these respondents mention a more unanimous approach is needed for the development of successful ICT-enabled innovation. This is reflected in earlier research on integrated approaches of organizations involved in debt advice (Giaux, Jungmann & Sol, 2016). As was mentioned earlier, the need to develop an integrated approach to addressing overindebtedness in terms of governance legislation is mentioned by 5 respondents. As respondent 13 mentioned:

*“the technology is well developed. [...] In the future, I expect more innovation in the sense of governance and legislation.”*

Summarizing findings related to environmental pressures, debt advising organizations develop and adopt ICT-enabled tools and applications in order to satisfy expectations from their institutional environment. ICT-enabled innovations are expected to add value to the field in order to address the growing societal problem of household overindebtedness. Organizations to some extent look at other sector organizations (e.g. law firms) and internationally for developing their ICT. Innovating with respect to governance, on the other hand, is perceived as equally important. Organizations striving to improve prevention methods in order to address household overindebtedness often find themselves limited by privacy legislation. They strive to helping an increasingly larger share of the population, an objective that is more easily pursued when household and personal information is widely available. Debt advising organizations have put views on digitalization of services into perspective. Although ICT enabled innovation may improve organization efficiency and quality of service, an overload on digital service delivery complicates service for clients. These findings largely relate to expectations on the environmental dimension of the theoretical model; the institutional perspective (Scott, 2001; DiMaggio & Powell, 1991).

#### **4.4 Innovation Capability**

In the final paragraph of the results chapter of this thesis aspects of innovation capability are discussed. Seventeen respondents from debt advising organizations mentioned promoting organization learning on development and adopting of ICT-enabled innovation. 6 Respondents mentioned doing research on the products they provide for their clients. Consumer organizations and umbrella debt advising organizations mention coordinating learning on ICT developments for their local counterparts. Other organizations mention adapting their ICT structure to be in line with changes in their organizations (e.g. Plangroep in the Netherlands & Stepchange Charity in the UK). The latter, however, is only partially done to develop within-organization learning, as it's also done in order to improve organization efficiency and value, relating to competitive and environmental pressures. Two organization mentioned developing and managing online discussion boards for professional debt advisors, allowing them to communicate on difficult cases. Respondents mentioned attending or organizing seminars on learning with regard to ICT-related innovations. These findings represent organizations commitment to learning and open-mindedness (relating to the critical evaluation of organization routines and openness to new ideas), which according to Calantone and colleagues (2002) promote innovation capability of organizations and their environments. Searching for best practices and policy development is promoted and explicitly mentioned by three respondents. Respondent twelve mentioned the Danish state promoting the search for best practices in debt advice and instructed the newly established debt advising organization to search for these best practices internationally:

*“[A colleague] tried to get a lot of organizations from Ireland, from Germany, From Amsterdam, to Denmark and sit together with all the organizations in Denmark giving debt counseling and trying to figure out what kinds of systems there are [...] and how we can do it in a smart way.”*

In line with Calantone and colleagues (2002) findings on shared vision and intra-organization knowledge sharing it was expected that organizations promote within-organization vision development and intra-organization knowledge sharing on ICT-enabled innovations. However, 4 of them mentioned doing so for developing a shared vision and one respondents mentioned intra-organization knowledge sharing as a means to increase organization learning on developing or adopting ICT enabled innovations directly. When asked about these topics specifically, most organizations mentioned regular practices to improve shared vision and intra-organizational knowledge sharing. As such, intra-organization knowledge sharing was mentioned by a small number of respondents but mostly not in relation to ICT development or adoption.

With regard to expectations on public sector innovativeness some of these expectations are represented in the findings of this research (Borins, 2001). Reward systems were not often mentioned within the context of single organizations, however they have been deployed by state and banking foundations. Five respondents mentioned reward systems being organized by their own or governmental organizations, some of these mentions related to ICT-enabled innovations use. Connection to knowledge institutes was widely acknowledged by consumer organizations, especially as means to develop knowledge on behavioural and psychological effects of overindebtedness. Seven respondents mentioned their connection to knowledge institutes and for some of these organizations doing scientific research is regarded as a prime organization value, as is the case for Dutch consumer organization NIBUD and Belgian consumer organization CEBUD. This connection to knowledge institutes didn't, however, often relate to research on ICT-enabled innovations specifically. Strong management support as mentioned by no more than two respondents. This is likely due to the fact that experts spoken to were mostly middle to high managers within their organizations and as such, did not stress their own strength of support for ICT-enabled innovations. There were no mentions of internal crises not directly relating to external crises (e.g. the 2008 financial crisis) as means to innovate with regard to ICT.

Summarizing the findings on innovation capability, debt advising organizations to some extent invest in their own innovation capability in the form of organization learning on ICT-enabled innovations. Debt advising organizations seek to innovate with regard to ICT enabled innovations in fulfilling their within-organization learning promotion and open-mindedness. Organizations (mostly consumer organizations) do research on household overindebtedness and to some extent on effectiveness of ICT-enabled innovations. Other organizations (e.g. charities) seek to innovate with regard to ICT in order to improve within-organization learning on organization effectiveness. These findings relate to the theoretical expectations on innovation capability through organization learning (Calantone et al.,

2002). Aside from developing within-organization learning promotion and open-mindedness respondents didn't often mention public sector innovation features for developing or adopting ICT-enabled innovations. Respondent 16 specifically mentioned that organizations in the field very much seek to develop their organization learning, only ICT-enabled innovation doesn't play that big of a role yet as most practitioners in the field are largely concerned with innovation with regard to behavioural-scientific approach to overindebtedness and innovation in governance:

*“So everyone gets wildly enthusiastically when we're speaking of behavioural sciences or Mobility Mentoring. And I have to pull them by their hairs and tell them: guys, we're talking innovations, that's ICT.”*

Respondent 13, however, warns:

*“One important principle someone once told me is: high tech, high touch. The more IT you put in, [...] the more important organizing the human aspect gets.”*

## Conclusion

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This research set out to explore what ICT-enabled innovations are developed and adopted by organizations in the debt advisory sector and to understand organizations' willingness to adopt these types of innovations. A theoretical model was proposed incorporating market competition pressures, pressures from the institutional environment and within-organization innovation capability. Analysis of interviews held with respondents has resulted in several conclusions related to the initial research questions.

With regard to the descriptive research question, a number of ICT-enabled innovations was found, of which the value, or innovativeness, is open for discussion. These ICT-enabled innovations differed mainly in terms of type of user and target population. ICT-enabled innovations are being deployed by the full extent of organizations types incorporated in this research.

With regard to the explanatory research question, it was found that debt advising organizations want to develop with regard to ICT enabled innovations in order to comply with cultural expectations in combatting overindebtedness. These developments are largely affected by environmental pressures from varying societal conditions - relating to expectations based on the Institutional Perspective (Scott, 2001; DiMaggio & Powell, 1991). To a lesser extent they are affected by market pressures and a need to gain social sector funding, be it (semi-)government funding or private funding). The level of development of ICT and ICT enabled innovations in these organizations is therefore largely dependent on organizations requirement to be efficient and cost-effective - relating to expectations based on the Resource-Based View (Barney, 1991; Kozlenkova, Samaha & Palmatier, 2014). This research concludes that in addressing the growing societal problem of household overindebtedness (Chmelar, 2013; Bouyon & Musmeci, 2016) and related costs for society as a whole (Bouyon & Musmeci, 2016; Pleasence, Buck, Balmer & Williams, 2007) organizations providing debt advice base their development and adoption of ICT-enabled innovations to a larger extent on environmental pressures and cultural expectations than they do in order to compete with similar organizations in the field. The reason the Institutional Perspective appears to better explain debt advising organizations' willingness to adopt ICT-enabled innovations than the Resource-Based View is likely due to the fact that although these organizations compete over limited resources and funding, their legitimacy is largely maintained due to expectations of the organizations environment and cultural expectations. Although competitive pressures are felt by organizations, the need to address societal expectations is more prominent for most, if not all, organizations incorporated in this research. This conclusion can be derived from three findings of this research that illustrate what issues debt advising organizations are most concerned with when it comes to developing and adopting ICT-enabled innovations.

First, ICT-enabled innovation use is perceived as contributing to the integrativeness of approach of debt advising organizations and other organizations in the field in improving organization-level efficiency and value (Giaux, Jungmann & Sol, 2016). As a result organizations seek to cooperate and ultimately strive to adapt their ICT systems to this cooperation. In this regard, ICT-enabled innovations enable better accreditation to cultural expectations, and as such, innovating with respect to ICT is perceived as facilitating innovation in governance. Second, organizations in the debt advice sector stress constraints with regard to digitalization of service provision, both for their end-users and between-organization governance. Although digitalization of services adds to the efficiency, value and legitimacy of debt advising organizations, this same digitalization often complicates service for vulnerable citizens. As such, digitalization, and therefore the use of ICT enabled innovations, is desirable as long as service accessibility and user friendliness is secured. Lastly, organizations strive to improve prevention methods in order to address household overindebtedness. Organizations often value the need to help overindebted households over the necessity to (overly) secure their privacy. However, they find themselves constrained in achieving this goal by privacy legislation.

Finally, the organizations incorporated in this research to some extent strive to address societal expectations by increasing their innovation capability on ICT-enabled innovations. They invest in within- and between-organization commitment to learning on ICT-enabled innovations by connecting to knowledge institutes, developing online discussion boards, organizing reward systems for innovations and organizing and attending meetings. This conclusion relates to the theoretical expectations on organization learning (Calantone et al., 2002). However, it should be stated that from this research it is concluded that most focus in terms of innovation appears to be on governance related issues and behavioural-scientific approach to addressing overindebtedness.

## Discussion

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Before attending to the practical implications of this research, discussing the strengths and limitations may help the reader put the conclusions and policy implications into perspective. As such, three of the main strengths and three limitations of this research will be discussed.

First, as was mentioned in the introduction of this research, debt advising organizations are underrepresented in sociological scientific literature. This thesis provides an initial sociological understanding of debt advising organizations' willingness to adopt and develop ICT enabled innovations. Its results may prove useful for debt advising organizations willing to innovate with regard to ICT and help develop a foothold for these organizations from which they may start developing their policy on the matter. The exploratory approach to this research resulted in insightful knowledge on a number of ICT-enabled innovations obtained internationally. In this sense, this research takes into account Rodgers' (2010) notion of the diffusion of innovation and facilitates diffusion of ICT enabled innovations. Moreover it may enthuse debt advising organizations to explore ICT enabled practices on debt advice internationally. Several such commercial initiatives have already been launched. In the Netherlands, a for-profit initiative called DNA – Academy<sup>4</sup> has been established in facilitating a brokerage position between public organizations for ICT enabled innovations in a wide range of sectors. This research has provided a short inventory of what ICT-enabled innovations one can be expected to find in debt advising organizations.

Second, a broad range of (semi-)governmental organizations in Western-Europe were involved in this research, most of which countries governments score high on e-governance (United Nations, 2016). As such, a broad macro level understanding of debt advising organizations' willingness to adopt or develop ICT enabled innovations was provided. Although the focus of this research was on an organization level the results may prove useful for international comparative research on ICT-enabled innovations.

Third, this research tends to a fundamental understanding of environmental, competitive and internal pressures for debt advising organizations' innovation willingness, incorporating a multi-dimensional framework. It has integrated classical sociological theory in (semi-)public organizations. As a result, the findings of this research allow for a baseline in developing scientific knowledge on innovation in organizations providing debt advice.

With regard to the limitations of this research, one of the main things to keep in mind when interpreting the results is the open approach to what captures ICT-enabled innovations. Although the term 'ICT-enabled innovations' was defined, no separate distinction was made beforehand as to what encompasses ICT enabled innovation precisely. As a result, interviewees interpreted what

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<sup>4</sup> <http://dna-academy.com/>

encompasses ICT enabled innovation freely to an extent. Whereas some interviewees mainly discussed within-organization structural ICT development, others tended to prospective (mobile) applications and future developments. As such, different ICT functions may be interpreted differently by respondents. This may be a problem when organizations hold different attitudes to structural ICT innovation as opposed to financial education tools and applications. This raises the question whether different theories apply to various ICT-enabled innovations. Future research could make a more distinct separation between ICT structural development and specific (mobile) applications and tools and apply different theory to this distinction.

Another limitation closely relates to generalisability of this research, in that results presented explain organizations' willingness to adopt ICT-enabled innovations on a macro-, international level. Therefore no country specific implications can be drawn from the research. Future research, however, can use the knowledge gained from this research as a foothold for future research on ICT-enabled innovation in debt advising organizations in specific countries. Earlier research on social inclusion and exclusion in European Consumer Bankruptcy systems has made an attempt at distinguishing bankruptcy systems (Heuer, 2013). Combining the results of these two research projects may help organizations develop a theoretical foothold for ICT enabled innovations in their distinct legal environment.

Another, rather obvious limitation relates to the qualitative approach taken in to this research. Although valuable insight has been gained on debt advising organizations' willingness to adopt ICT enabled innovations, no systematic quantitative testing of the theoretical framework has been incorporated. Future research could use the results of this research to systematically test to what extent environmental pressures, market pressures, and organization learning values explain organizations' willingness to adopt and develop ICT enabled innovations, while taking into account different types of debt advising organizations).

A final limitation relates to the sampling bias of this research. Due to the explorative aspect of this research organizations were contacted due to their expected innovativeness of use of ICT enabled applications (based on the selection of organizations in countries based on their level of e-governance). As a result organizations holding positive attitudes toward innovating with regard to ICT may be overrepresented in the sample. Future research could incorporate debt advising organizations in a broader selection of countries.

All in all, it is expected that this thesis sparks the interest of academics in developing a more thorough understanding of ICT-enabled innovation adoption and development in the increasingly important sector of debt advice.

## Policy recommendations

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In this section of my thesis I turn to the final research question and will provide several policy recommendations. Part of these recommendations is aimed at policy makers working with ICT-enabled innovations and ICT developers seeking to understand debt advising organizations willingness for developing and adopting ICT-enabled innovations. The second part of these policy recommendations is aimed at improving methods for identifying (ICT-enabled) best practices and innovations internationally.

In developing successful ICT-enabled innovations, be it tools, applications, or within-organization ICT structural innovations, policy makers, ICT developers and other initiators should take several considerations in mind. First and foremost, policy makers, ICT developers and other initiators within the debt advisory field should seek to develop a thorough understanding of the debt advising field and the role they wish to facilitate. For ICT-enabled innovations developed for overindebted households as end-users this research emphasizes the need to develop a clear vision of the culturally perceived problems in their country or region and develop innovations so that they are in line with these perceptions. In order to pursue this goal, policy workers and ICT developers should map out the stakeholders and users. Examples of users may be overindebted individuals and households (of specific target groups), social and legal workers, volunteers, formal debt advisors. This research found that ICT-enabled innovations, such as tools and applications for overindebted individuals and households, should add to the field and relate to contemporary cultural expectations of the organizations environment. In this regard, developers of these innovations have to align their developments with the cultural expectations of the environment, the legal institutions (laws and legislation) and attitudes of professionals in the field as these align with results relating to the Institutional Perspective (DiMaggio & Powell, 1991; Scott, 2001). For example, in a subset of organizations it was found that ICT enabled innovations for overindebted households as end-users should integrate behavioural scientific views on overindebtedness in order for it to be legitimized.

Furthermore, it was understood from this research that there are two major limitations to developing with regard to ICT in debt advising organization. First, organizations pursuing early signalling of overindebted households and other preventive measures to combatting overindebtedness find themselves constrained by privacy legislation. Finally, many debt advising organizations signal the averse side-effect of digitalization for vulnerable citizens. Although these problems relate to most countries taken into account in this research, the following advice will relate to the case of the Netherlands.

Development of 21<sup>st</sup> century ICT-enabled innovations is indisputably related to policy development. Previous research stresses this (Navarra & Cornford, 2005), as well as respondents of the interviews as they stated that the most innovative of changes with regard to the field of debt advice

will relate ICT-enabled innovation to governance and legal environment innovation. As such, policy workers and ICT-developers should seek to align their ICT-enabled innovations with contemporary policy development. Policy literature identifies three types of complexities to be dealt with for successful development of policy in today's society (Klijn & Koppenjan, 2016). Substantive complexity is caused by the uncertainty and lack of consensus of the nature of problems, their causes and solutions (relating to cultural expectations of organizations). Strategic complexity follows from substantive complexity as actors and stakeholders develop a large variety of strategies (relating to competitive resources of organizations). Institutional complexity is caused because complex problems, policies and services often cut across the existing demarcations between organizations, administrative levels, and networks. In order to attend to these complexities, Klijn & Koppenjan argue, policy workers are to identify relevant actors and stakeholders, reconstruct their perceptions and analyse their positions and perceptions. Next, they should identify related arenas to the debt advisory field and their interaction to the field, identify interaction patterns and patterns of perceptions and trust relations. These are steps that need to be taken in order to successfully develop policy in governance networks and as was confirmed by this research, ICT-enabled innovations facilitating an integrative approach to dealing with overindebtedness should take these lessons of policy literature into account. Especially, if they are to attend to, for example, early signalling of overindebted households and other prevention methods. In short, policy workers need to understand what facilitating role ICT plays, how this relates to the contemporary cultural expectations of the organizations environment and how policy should be developed as such.

With regard to the international explorative approach of this research several considerations need to be made. Research on knowledge sharing between regions and international nodes shows that most innovative private sector firms show access to international sources of knowledge (Simmie, 2003). The topic of ICT-enabled innovations is interesting to many debt advising organizations as it improves organization efficiency and service value for organizations. As such, organizations were gladly willing to share their ways of practice and development of ICT-enabled innovations.

Due to the limited timespan and the lack of communication channels for expanding a network internationally this research wasn't able to capture a more complete inventory of ICT-enabled innovations in the countries included. Relating to the Diffusion of Innovations theory by Rodgers (2010), innovations in themselves, communication channels, time and social systems influence the diffusion of these innovations. As such, in order to improve a brokering position, communication channels need to be developed and time spent identifying best practices and innovations in a country should be increased. A more specific selection of countries could facilitate the discovery of particularly interesting cases of innovativeness in the debt advice sector. Of particular importance in this regard, is that internationally transferring the innovation may add considerable value to the field.

Related to finding best practices and innovations internationally, for example by means of approaches like the DNA-approach mentioned in the discussion section of this research, follow up research and development of the approach should entail putting the best practices and innovations found in a testing phase in other countries, taking into account the different institutional and cultural-historic background. This research has shown that in the sector of debt advice, organizations are willing to adopt and develop ICT-enabled innovations when they address culturally perceived problems, add to organization efficiency. In other words, they do so when they add value to the organization and its environment. Research on a testing phase is the next step in determining whether internationally exchanging ICT-enabled innovations leads to effective results. Research on policy transfer could provide insight into what factors influence policy transfer success and policy transfer failure (Dolowitz & Marsh, 2010).

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## Appendix A. Interview Topiclist

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- **Introduction**
  - Research goals
  - Formal
- **ICT-enabled innovations**
  - ICT-enabled innovations developed or adopted by organization
    - Example question: *What ICT-enabled innovations does your organization currently deploy [to households / within your organization]?*
  - Causes for development or adoption of ICT-enabled innovations
    - Example question: *What was the leading cause for the development or adoption of this specific ICT-enabled innovation?*
- **Competitive pressures**
  - Market pressures
    - Example question: *Do organizations in your environment compete [over clients / over the service you provide?]*
  - Similar organizations
    - Example question: *How does the services your organization provide differ from the organization you compete with?*
  - Funding
    - Example question: *How is your organization funded? [(semi-)publically / privately?]*
- **Competitive pressures**
  - Problem perception
    - Example question: *How do ICT-enabled innovations address household overindebtedness?*
  - Inspiration
    - Example question: *Where do you get information on ICT-enabled innovations?*
  - Accounting
    - Example question: *Who does your organization account to and to what extent do ICT-enabled innovations facilitate this accountability?*
- **Innovation capability**
  - Organization learning
    - Example question: *What does you organization do in order to improve learning on ICT-enabled innovations?*

- Commitment to learning/  
Open-mindedness/  
Shared vision/  
Intra-organization knowledge sharing
- Connection to knowledge institutes
  - Example: *Does your organization link to universities or other research institutes?*
- Reward/awards systems
  - Example: *Does your organization or organizations in you environment organize or attend reward / award systems relating to ICT-enabled innovations?*
- Job autonomy
- Top management support
- Internal crisis
- **Closing matters**

## Appendix B. Code Tree.

|   | Sources | References |
|---|---------|------------|
| <b>Competitive function of ICT-enabled innovations:</b>                             |         |            |
| - (specific) Competitive value added  | 16      | 85         |
| - (specific) Rarity value added   | 1       | 1          |
| - (specific) Non-imitability value added  | 3       | 4          |
| - (specific) Non-substitutability value added                                       | 2       | 2          |
| - Requirement to be (cost) efficient  | 15      | 69         |
| - Sign of actual direct competition   | 10      | 18         |
| - Competitive value added over other similar organizations                          | 9       | 19         |
| - Tools & (mobile) applications not funded by private partners                      | 5       | 6          |
| <b>Institutional outcome function of ICT-enabled innovations:</b>                   |         |            |
| - Perceived cultural expectation (coercive)   | 15      | 104        |
| - <i>Related to social &amp; institutional conditions in country</i>                | 14      | 40         |
| - <i>Related to behavioural-scientific approach</i>                                 | 7       | 14         |
| - <i>Related to integrated approach of stakeholders to address overindebtedness</i> | 5       | 21         |
| - Collaboration with other organizations  | 15      | 41         |
| - Mentions of laws & legislation  | 10      | 23         |
| - <i>related to privacy</i>   | 10      | 16         |
| - Uncertainty of environment  | 9       | 15         |
| - Copying ICT(-enabled innovations)   |         |            |
| - <i>From similar organizations</i>   | 3       | 3          |
| - <i>From organizations in other countries</i>                                      | 3       | 4          |
| <b>Innovation capability</b>  |         |            |
| - Organization learning   |         |            |
| - <i>Commitment to learning</i>   | 17      | 40         |
| - <i>Shared vision</i>  | 4       | 4          |
| - <i>Open mindedness</i>  | 6       | 6          |
| - <i>Inter-organizational knowledge sharing</i>                                     | 1       | 1          |
| - Connection to knowledge institutes  | 7       | 11         |
| - Job autonomy  | 3       | 3          |
| - Top management support  | 2       | 2          |
| - Reward/award systems  | 5       | 6          |
| - Internal crisis   | 0       | 0          |

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***ICT & ICT(enabled innovations)***

|   |    |    |
|---|----|----|
| - ICT-enabled innovation – Tool - explained                   | 18 | 74 |
| - Cause for development ICT-enabled innovation                | 17 | 57 |
| - ICT functionality problem                                   | 7  | 16 |
| - Limitation possibilities of ICT (tools & other innovations) | 7  | 11 |
| - Expected future use of ICT                                  | 13 | 22 |