Front-Line End-User Interactions' Impact on Front-End Activities: A Co-Creation Journey for Immigrant Integration Services, the Finnish Case

From idle capacity to full potentials, giving voice, visibility, and velocity to co-create value.

Hani Tarabichi, Pekka Berg, Jussi Pihlajamaa
Arcada AMK, Aalto University, Finland

***Abstract*--Trends are changing leading to shocks; organizations are faced with challenges and cannot operate at same level. Developing a dynamic business and operational model relying on new technological opportunities and clearer and faster customer insight is a must. Co-creating with end-users and various stakeholders through digital platform may offer the solution.**

When resources are becoming scarce, networks of collaboration could play an important role in value co-creation and access to business opportunities which leads to solutions being more inclusive and thus acceptable, adoptable, and scalable. Benefits are in applying technology to provide value at reduced cost and appropriate scaling. Multidisciplinary teams could offer solutions to achieve sizable understanding on how to develop dynamic capabilities for renewal.

The aim is to form a comprehensive understanding of organizations' ability to create impactful new offering from multiple hierarchical viewpoints: civil workers-immigrants-managers-directors, by developing new business and operational models while preserving, promoting, and empowering stakeholders to generate a productive impact and increase social inclusion. Acumen on front-end activities, co-creation, and value networks, are thought after by combining innovation management, information management, and design thinking for new insights. Output of this research is to make an impact on the integration and societal ecosystem.

I. INTRODUCTION

Trends are changing at fast pace leading to shocks; firms and organizations are faced with challenges and cannot operate at same level as before. Dynamic capabilities offer firms possibilities to succeed in re-inventing offerings that create better value.

Recent migration trends are challenging organizations and systems of integrations. Developing an agile model relying on new technological opportunities, clearer and faster customer insight is a must. Co-creating with immigrants and various stakeholders through digital platform may offer a solution.

> ***"The meaning of value and the process of value creation are rapidly shifting from a product and firm-centric view to personalized consumer experiences. Informed, networked, empowered and active consumers are increasingly co-creating value with the firm." [32]***

When resources are becoming scarce, networks of collaboration could play an important role in value co-creation and access to business opportunities which leads to solutions being more inclusive and thus acceptable, adoptable, and scalable. The provided benefits are in applying technology to provide value at reduced cost and appropriate scaling. Co-Creating new business and operational models and value offerings require combination of many competencies. Multidisciplinary teams could offer solutions to achieve sizable understanding on how to develop dynamic capabilities for renewal.

Since 2001, the number of quota refugees accepted by Finland has been 750 per year as in Figure 1 below. The refugee quota was increased, in 2014 and 2015 to 1,050 due to the severe situation in Syria. However, the reality of the influx of refugees from August 2015 onwards was around 32,000 refugees compared to a total of 16,612 refugees between the year 2000 and mid-2015. This sudden increase in numbers of refugees entering Finland is creating a challenge for the integration system which was not built originally for such a number of immigrants.

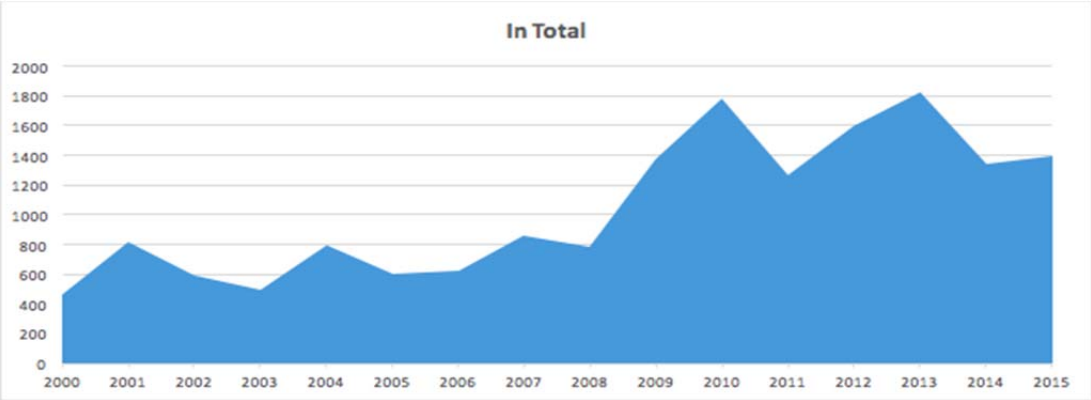


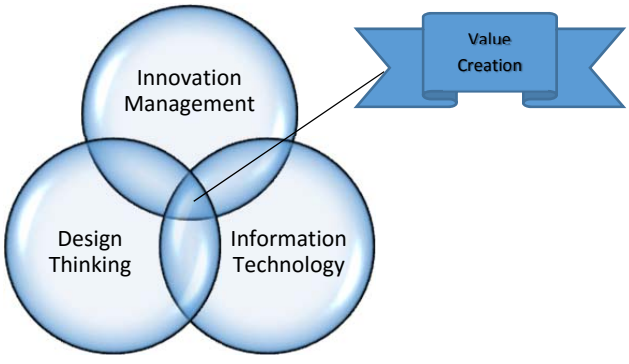
Figure 1. Refugees numbers in Finland 2000 ~ 2015
Source: http://www.migri.fi/asylum_in_finland/quota_refugees

This sudden influx of immigrants came while Finland is still recovering from the 2008 financial melt-down, high unemployment rate, and decline of exports. The numbers of new arrivals are threatening any economic recovery unless an effective, and more efficient system of integration is introduced to turn the idle capacity of new arrivals into positive force into the economy. The government announced that on average it takes an immigrant 7 years to be fully integrated in Finland. In the case of the author it was 22 months. The goal of this research is to radically change the integration system to make it efficient, effective, and full of impact to immigrants, companies, and society in general.

This paper describes conceptually the theoretical backgrounds and a tentative idea of impact of co-creation and front end activities on overall performance of new service development, and the role of immigrants and front-line civil service employees in customer interaction for the purpose of new service development. We are going to tentatively develop this approach amongst 5 public service providers (Ministry of Labor and Economic Affairs (TEM), Espoo city office of immigration services, employment office (TE-Toimisto), Police, and KELA) during the next three years, also this approach will be tested amongst private sector companies, new and old immigrants, language and integration program providers, and university students in academic setting.

II. THEORETICAL BACKGROUND

Emerging challenges are becoming more intense and frequent. Traditional, incremental management practices can no longer deliver thought after results for systems of integration. Creative out-of-the-box thinking is a must to drive ideas and concepts through radical processes into implementation and commercialization. In order to drive implementation as fast as possible and as large as possible, information management is needed to be applied in order to scale the offers of the integration system and at the same time achieving results efficiently while using resources rationally.



Information technology offers a complementary platform to radical innovation where offerings through excellent crafted business models can turn into real impact where all stakeholders can achieve their agendas efficiently while discovering new boundaries of collaboration.

As integration of immigrant cannot be a one-size-fits-all service, empathy towards customers and users is to be applied in our approach which calls for design thinking as an approach to better understand the immigrants and facilitate fertile collaboration amongst stakeholders for innovation.

This mixture is expected to develop better understanding of new radical ways to co-create value which benefits innovation management, design thinking, and information management scholars.

A. Innovation management

Effective and efficient innovation management practices and processes are instrumental in providing organizations with practical means to respond systematically to emerging challenges. Innovation management is a field which concentrates on creating ideas and developing them into commercial products and services. It covers methods to support creativity and ideation, formal processes and systems and strategies to guide idea selection, development, implementation and commercialization, and ways to create an environment where employees are motivated to contribute to innovation [29].

A business model is a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network [36]. Business models are needed to transform promising inventions to commercially successful innovations. The economic value of a technology and new products remains latent until it is commercialized in some way via a business model [8].

Firms often fail to benefit from promising new technologies and products because they are not able to rethink and align their business models with them. Typically, innovation processes evaluate the business potential of ideas only in relation to existing business models [28]. The more radical the innovation in question the more it is necessary to challenge existing business models and develop new alternative business models.

Many strategic choices related to e.g. target markets, customer needs satisfaction, value propositions, expected product price and product costs, the main functionalities of products, and the predominately used technologies are made at very early stages of an innovation project [5] [39]. This suggests that business model considerations should be a part of the innovation process straight from the beginning. However, many organizations have a ‘‘business model innovation leadership gap” and fail to cut loose from the conventional ways of creating and capturing value [9]. Organizations may have significant investments and processes for developing new services, products and technologies, but they often have no common understanding of how a new business model is developed [8] [31]. Developing new business models is difficult because it

requires rejecting the thinking that has led firms to success in their current businesses in the first place [19].

Business models have received quite a lot of attention in the recent years in the academia [40]. Despite of this, it is still a relatively poorly understood topic [17]. More knowledge is needed about how organizational processes should be changed to support business model innovation [8]. Other challenges are how to experiment and scale up new business models while simultaneously maintaining existing ones [9].

In our context, we study innovation management from expanded Triple helix view point. We study what are the critical factors, how do organizations collaborate and innovate with other stakeholders and how the maturity affects to strategic planning and management of activities.

B. Information management

Information management is a discipline which covers "the various stages of information processing from production to storage and retrieval to dissemination towards the better working of an organization [1]. Information is considered to be a crucial business resource, which needs to be managed efficiently [23]. It focuses on bridging the implementation gap between information technologies and business strategy. As [7] describes the situation:

> *"Spending money on technology is easy. Developing a business strategy – even one that takes full account of information technology opportunities – is also relatively easy. The problem lies in the space between these two, in the uncertain world of project management, systems implementation, business change management, benefits delivery, and performance management."*

Bridging this gap requires considering information systems, business processes, business benefits and their relations to technologies and strategy. Information management studies how to provide data and information to right people with high accuracy, timeliness, reliability, security, and confidentiality. It also includes ways to provide universal connectivity among parties and the ability to tailor infrastructure to emerging business needs and directions [24]. This enables a faster and a more responsive adaptation to changes in the environment.

Over the past 20 years, the use of information technologies has become crucial in developing new business models [27]. Disruptive business models are increasingly built around new digital technologies [17]. Despite of this, there has not been much interaction between information management and innovation management scholars.

Existing studies of the role of information management in innovation have mostly focused on how IT-based tools may support the innovation process. A less-studied phenomenon is how new digital technologies are unleashing new potential for value creation. At the moment, this question is very topical among information management scholars who have called for interdisciplinary perspectives to tackle the issue [26].

C. Design Thinking

Design thinking "is a systematic, intelligent process in which designers generate, evaluate, and specify concepts for devices, systems, or processes whose form and function achieve clients' objectives or users' needs while satisfying a specified set of constraints." [11]. Design thinking scholars argue that approaching management problems the same way designers approach design problems may provide new insights and solutions in many situations [10].

Design thinking is a human-centric methodology which highlights empathy towards customers and users [21]. When solving design problems, the designer has constantly in mind a client or a customer who, in turn, has in mind other users or customers for whose benefit the designer works [11]. Design thinking characteristics' focus on human values, need finding, rapid iterative learning cycles, prototyping, customer experience, action orientation (observe, prototype, test), and managing design team composition and dynamics, and finally, design thinking gives questioning an equal or greater status than deciding [34].

In order to benefit from design thinking methodologies new ways of working are needed. Organizations need to organize collaborative teams which work at the intersection of technology, business, and human values [21]. Utilizing design thinking methodologies in innovating business models helps organizations unleash their potential by tapping into team intelligence, creativity, and ambition. As a result, they can increase their ability to develop business models which have a meaningful impact in the customer's life, both functionally and emotionally [12].

Design research currently focuses on new frameworks, tools, systems, and methods which facilitate fertile collaboration for innovation [21]. In this study, we apply the design thinking approach to the context of digitalization and business model innovation. This combination is expected to improve understanding of new ways to create value which benefits innovation management, design thinking, and information management scholars.

III. PURPOSE AND IDEA OF THIS RESEARCH

The aim is to form a broad understanding of organizations' ability to innovate social impact by using innovation management to develop new solutions and operational models while preserving, promoting, and empowering stakeholders to generate impact and increase social inclusion and innovativeness. Acumen on leadership, networks, collaboration practices, and innovation processes are thought after by combining innovation management, information management, and design thinking. Action research, human centric approach of design thinking, and

storytelling to be used in multiple focus groups of various actors and finally an intervention session to confront all the actors together to co-creation an optimal solution for faster more efficient and effective model of immigrants' integration.

When the operating environments of organizations change due to slowly growing trends or sudden shocks, many firms realize they cannot do business the same way as before. However, only some succeed in re-inventing themselves to meet the demands of the new situation. Organizations which have the ability to time after time come out on top and overcome challenges are said to possess dynamic capabilities - systematic ways of rapidly and flexibly adapting to external changes.

In order to understand how to utilize the potential of new technologies and data, what is technologically feasible has to be matched with immigrant's needs. Organizations need to be able to integrate new technologies into their existing systems, identify emerging needs, tap into internal and external competences, and develop new offerings for effective and efficient integration of immigrants. In the context of digitalization, many business models emphasize the role of services in value creation. Hence, it is vital to comprehensively understand the needs of immigrants and various actors in the ecosystem, their thinking, doing, and feelings, and find new ways to collaborate with them.

Customer collaboration has a positive effect on the performance, effectiveness, and efficiency of new services, the fuzzy-front end can be less fuzzy if customers are involved in the front-end stages of New Service Development [2]. For instance, studies about the service innovations have emphasized the importance of idea generation, idea screening and concept development stages of NSD. These stages are often called the fuzzy front-end of an innovation process because they typically involve imprecise process and ad hoc decisions [25].

A. Research questions:

The importance of customer interaction in service innovations prompted numerous studies on this phenomenon. Previous writings on service innovations concentrated on the entire New Service Development process. In this study we aim to concentrate on the front-end stage of idea generation, idea screening, and concept development. More precisely, we try to answer and form an understanding of:

- What is the impact of co-creation, customer interaction, and front-end activities on overall performance of new services (immigrants' integration in Finland in this case)?
- What are the roles of service employees in customer interaction for the purpose of NSD in the case of integration programs of immigrants in Finland?
- How to innovate new business models of better integration through the use of digitalization, leadership, ways of working, value networks, management and collaboration practices, tools, capabilities, and innovation processes?

Despite great efforts, management researchers have not achieved breakthroughs in understanding how to develop dynamic capabilities for renewal through early stage interaction or co-creation with customers and front-line personnel. Lately, many experts have called for multidisciplinary research to dig deeper into the issue. Output of this research is to make an impact on the integration and societal ecosystem.

B. Self-Motivation

Having immigrated from Syria to Finland and being in a totally different environment, new language, business culture, and social setting was not easy. The hard economic situation led me to the process of integration through the unemployment office. It was then when I discovered the lengthy frustrating process where a lot of capacity was sitting idle while waiting in lines for decisions and queue numbers. In my case, it took me about 22 months to start realizing my potentials as a PhD candidate, researcher, and educator. At times, while sitting in the classroom of language and work culture I felt suffocated and useless. I wanted to be outside working for a better future for my family, building a network, making a difference, and making a meaning for my life. The process of integration was effective towards the end as it stipulated beneficiaries to do internships in future places where they wanted to work. It was then, after 22 months of waiting and being idle when I started realizing my passion and dreams. This frustration lead to ignite my passion for finding a solution for this wicked idle period of integration. There has to be a way to turn this idleness into more effective, efficient and positive energy. During the internship, at the Innovation Management Institute at Aalto University's School of Science, Department of Industrial Engineering and Management, I started developing this research plan as a part of my PhD proposal. Reading on innovation management, design thinking, action research, co-creation, concept shifting, business models, and startup ecosystems proved to draw me in everyday to try to satisfy my thirst for knowledge and making an impact, making a difference in the new society I am enjoying living in with my family. Carrying the research and implementing its findings will reduce the amount of investments in the integration efforts, immigrants will find meaningful jobs or careers faster, and hence this will provide a win-win formula for all stakeholders. Output of this research is to make an impact on the integration and societal ecosystem.

IV. METHODOLOGY

This project targets to learn more on how innovation processes and entrepreneurial initiatives can be more comprehensive and inclusive of grassroots level participants whose role has been minimal. Members of grassroots level (immigrants and front line personnel in our case) have been acting as beneficiaries and passive players of various integration and welfare development programs. However, these actors on grassroots level did not have the chance to give their inputs on such programs which lead these communities to become dependent on various social programs rather than empowered to sustainably develop their own welfare, the community, and the host country they live in.

Numerous researchers [13] [3] claim that members of the grassroots communities are being seen as consumers, producers, or beneficiaries rather than empowered actors in the innovation activities and thus providing sustainable welfare entrepreneurial results. Therefore, research should consider the economically challenged as producers and entrepreneurs rather than only customers [18].

The user as a subject phenomenon, that was US-driven, treated beneficiaries as passive users that merely gave their inputs or opinions about program concepts developed by others. The Northern European approach of users as partners is increasingly being adopted where beneficiaries have been given more influence and room to provide expertise and participate in forming, ideating, and conceptualizing activities [35]. As needs are becoming more complex, intertwined, and challenging inter-organizational collaboration is becoming a norm for efficiency in order to be a capable player in the global competition [15]. In order to sustain competitiveness and radicalize it, organizations are bound not only to meet the present demands of their customers, but to innovate the needs of future ones [20].

Actors in a system (customers, suppliers, and distributors) can along with the firm and its network jointly create value which is called co-creation as discussed by [30]. The involvement and interactions between various actors during co-creation may lead to a valuable innovative outcome. Co-creation in a way can be viewed as an open innovation [4].

Digitalization has increased the quantity of available information from new sources. To recognize new opportunities and create new value, organizations need to be able to collect, manage, analyze and process great amounts of information among many parties. Many value creation attempts have failed because of inadequate understanding of the immigrants' wants and needs. The new situation requires new ways to understand, collaborate, co-design and co-create with immigrants and various stakeholders. Deep customer insight is especially important as services increasingly dominate new business models.

Based on these considerations, three relevant research paradigms have been identified to tackle the challenging topic: innovation management, design thinking, and information management. Our approach is strongly multidisciplinary and integrates expertise on the utilization of digital technologies, and modern management approaches to a human-centric view which considers immigrants, governmental organizations, companies, service providers, academia, and labor unions. To produce relevant information for strategic decision making and recognizing the most relevant assessment criteria (Figure2. and Figure3)

Innovation management focuses on strategies and practices to guide and support the creation of new value by developing new products, services, and business models. Information management considers how firms may use digital technologies in new ways resulting in improved alignment between technology initiatives and business goals. Design thinking is a process and a method which combines empathy for the context of a problem, creativity in the generation of insights and solutions, and rationality in analyzing and fitting various solutions to the problem context. It allows the designer to get close to the thinking, doing, and feelings of users and customers.

		Research Paradigms					
Context		Innovation Management	Information Management	Design Thinking	=>Output Input =>	Concept shifting	Scenarios Building
	Front Line						
	Management						
	Immigrant1						
	Immigrant2						
	Companies						
	Labor Union						
	Academia						
	Service Providers						

Figure 2. Context vs. research paradigms

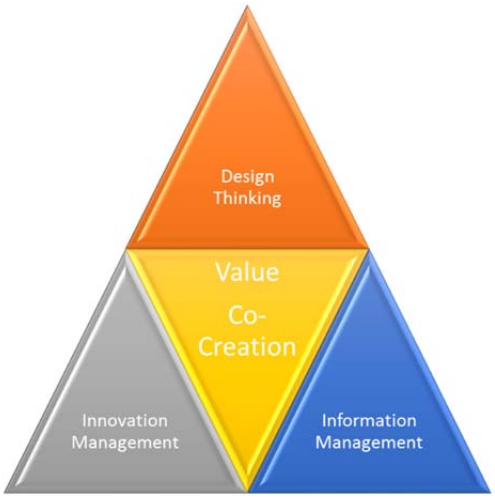


Figure 3. Key research paradigms

V. OBSERVATIONS AND PRELIMINARY RESULTS

Based on 3 meetings with city of Espoo officials, 4 workshops with TEM, supervising a multidisciplinary student team from Aalto University International Design and Business Management program working on integration of refugees issues for 8 months, seminar delivered during sustainable entrepreneurship course at Aalto Business School, participating as a speaker at UNICEF Global Innovation summit in Helsinki, and numerous discussions with refugees at reception centers and language schools, we have identified the following focus areas for our study: linking new digital technologies with value co-creation for all stakeholders, the co-creation of new flexible innovation practices, and managing operations in complex networked organizational environments.

As we continue, we follow "Action Research", where experimenting with different business models we create new knowledge and practical experience together with the ecosystems actors. Action research's strong point lies in focusing on creating solutions to practical problems and its ability to empower practitioners, by getting them to engage with research and the subsequent development or implementation activities [22]. Action research approach was also chosen because it combines two objectives: on one hand the solving of a practical problem and on the other hand the development of scientific knowledge [16] [14]. Action research gives enough space for the researchers' intent to change a situation, while at the same time researchers participate in the research both as subjects and objects [33]. And finally, Action Research has been chosen because of the role of facilitator that the Action Researcher often takes. In this research, this facilitator role will take place both in designing, developing, facilitating and moderating the workshops.

Through literature review and the action research done so far, we have formed pilot understanding of the organizations' current ability to create value and meaning to immigrants' integration in Finland. We are exploring who does what and why related to the most crucial steps of the development process to understand the difficulties the organizations face and to propose ways to overcome them. The frustration from end-user's side of the service is somewhat prevalent in the long period it takes for them to obtain economic ability and to start being a positive member of the society. The priorities of the integration process seem to be miss-matched between policy makers, service providers, and end-users as in Table 1 below.

TABLE 1. PRELIMINARY RESULTS OF PRE-STUDY.

Organization	Need to learn language	Need to start own work	Need for employment	Need to assimilate in culture
Highly Educated Emigrant Labor	xx	xx	xxx	x
Government Org1 City of Espoo	xxx	x	xx	xxx
Government Org2 Kela	xxx	xx	x	xxx
Government Org3 TE-Toimisto	xxx	xx	xxx	xxx
Companies	xx	x	xx	xx
Language Schools	xxx	xx	xx	xx
Academic students	x	xxx	xxx	xx

Little important point of view	x
Important point of view	xx
Very important point of view	xxx

The communication and roles of various actors in the network were discovered not to be clear. We intend to test new tools of interactions and co-creation with the organizations to figure out how they may be used in different situations and integrated in to the organizations' innovation process.

Several sequential steps which we follow in conducting the research:

- In the first step, we are deepening our understanding of the relevant literature to create theoretical basis for the study.
- In the second step, we identify the most suitable actors, players, and partners for action research. In action research we use interviews, observations, focus groups, storytelling, LEGO serious play, document analysis, and intervention development workshops as data collection methods. We begin by examining the existing practices related to the three research paradigms and compare their alignment to the strategic goals of the organization. We work closely with the stakeholders and develop with them alternative offerings and test a variety of innovation tools. Then we apply our theoretical understanding to identify factors which support or inhibit new value creation processes.
- In the third step, we gather comparison material from other projects in similar services. We compare the understanding of how to apply innovation management, information management, and design thinking methods in practice in different contexts.
- In the fourth step, we form preliminary descriptions of practices, methods, and ways of working and use action research methods to test them in real-life settings in the firms. We analyze the results and further develop them using workshops. We analyze the descriptions together with partners and create more defined descriptions of how to implement best practices and develop capabilities for innovative offerings.
- In the fifth step, we deepen our analysis by comparing the emerging results to relevant theoretical literature and write texts for academic publications.
- During all steps, we organize various activities such as seminars and workshops to disseminate the results to a wider audience. To promote this goal, we start writing a handbook of the project results.
- We will benchmark the project results with partners to be able to understand the generalizability of the results and the relevance of context.

The first round of this action research started in August 2015, and is to be concluded in May 2016 with a dissemination of remarks workshop for involved parties and stakeholders.

VI. RESULTS, CONCLUSION, AND DISCUSSION

When starting this research, we discovered that interaction amongst various players for building new innovative integration solutions is minimal. Also, we confirmed the passive relation between front-line service providers and end-users. The literacy review asserted that starting interactions between front-line personnel and end-users can spark innovative solutions for problems that service providers are aspiring to solve. At the same time, feelings of worthiness and appreciation from end-users can assist in empowering immigrants to propose solutions from their perspectives.

This led us to propose a digital platform to facilitate interaction and service development between various actors in the ecosystem of immigrants' integration. The digital platform will host new immigrants' profile (HEEL1), HEEL1 from day one without having to wait for bureaucratic paperwork can start learning about language, work-culture, and society in general.

Governmental agencies like TEM, TE-Toimisto, KELA, Police, and Migri can help HEEL1 throughout his/her journey. Elder immigrant in the society (HEEL2) can help HEEL1 by giving advice, network connections, and tips. Language and integration schools can provide some learning experiences on the digital platform in order to make learning experience more efficient. Companies can learn more about the profiles of HEEL1 and advise them what is missing for HEEL1 in order to obtain a meaningful job with them, or companies can help HEEL1 by providing them with internship opportunities.

Other members of the ecosystem can tap such as NGOs by providing success stories and cultural experiences in order to inspire HEEL1 to go after fulfilments and being a positive member of the society.

We aim for this platform to provide enough space for interaction between front-line civil service personnel and immigrants and the rest of the ecosystem involved in the integration process in order to co-create impactful innovative efficient solutions for integration issues in Finland.

The results of the project are to be utilized extensively through various channels. In addition to academic writing project results will be published handbook, which will be freely available to all stakeholders and ecosystem actors. The project will help to deepen cooperation amongst governmental organizations, service providers, academia, companies and leading international research institutes related to digitalization, information management and design thinking in regards to integration services of immigrants.

REFERENCES

[1] AIM (2005). Association for Information Management website, http://www.aslib.co.uk

[2] Alam, Ian 2006. Removing the fuzziness from the fuzzy front-end of service innovations through customer interactions. Industrial Marketing Management 35 (2006) 468 – 480

[3] Ansari, S., Munir, K. & Gregg, T. (2012). Impact at the 'Bottom of the Pyramid': The Role of Social Capital in Capability Development and Community Empowerment. Journal of Management Studies, 49: 4, pp. 813-842.

[4] Barczak, G. (2012). 'The future of NPD/innovation research', Journal of Product Innovation Management, 29, pp. 355–357.

[5] Bonner, J.M., Ruekert, R. W. & Walker, Jr. O.C. (2002). Upper management control of new product development projects and project performance. The Journal of Product Innovation Management, 19.

[6] Bovaird, T. (2007). 'Beyond engagement and participation –user and community co-production of public services', Public Administration Review, 67, pp. 846–860.

[7] Bytheway, Andy (2004) "The Information Management Body of Knowledge", University of Western Cape. http://repository.uwc.ac.za/bitstream/handle/10566/1145/IMBOK04c.pdf (Last accessed 9.9.2014).

[8] Chesbrough, Henry (2010) "Business Model Innovation: Opportunities and Barriers", *Long Range Planning* 43(2-3), 354–363.

[9] Chesbrough, Henry & Schwartz Kevin (2007)" Innovating Business Models with Co-Development Partnerships", Research-Technology Management, 50(1), 55-59.

[10] Dunne, D. & Martin, R. (2006). Design Thinking and How It Will Change Management Education: An Interview and Discussion. Academy of Management Learning & Education, 5(4), 512–523.

[11] Dym, C. L.; Agogino, A. M.; Eris, O.; Frey, D. D. & Leifer, L. J. (2005) "Engineering Design Thinking, Teaching, and Learning", *Journal of Engineering Education*, 94(1), 103–120.

[12] Fraser, Heather M. A. (2008) "Designing Business: New Models for Success" in Lockwood, Thomas (ed.) "Design Thinking: Integrating Innovation, Customer Experience, and Brand Value", Allworth Press, New York.

[13] George, G; McGahan, A.M.; Prabhu, J. (2012) Innovation for Inclusive Growth: Towards a Theoretical Framework and a Research Agenda. Journal of Management Studies, 49:4, pp. 661-683

[14] Gummesson, E. (2000), Qualitative Methods in Management Research, Sage Publications, Thousand Oaks, CA.

[15] Hagel, J. and Brown, J.S. (Eds) (2005), "New forms of connection and coordination – process networks, loose coupling, and performance fabrics", The Only Sustainable Edge – Why Business Strategy Depends on Productive Friction and Dynamic Specialization, Harvard Business School Press, Boston, MA, pp. 79-97.

[16] Hult, M. and Lennung, S.-Å. (1980), "Towards a definition of action research: a note and bibliography", Journal of Management Studies, Vol. 17 No. 2, pp. 241-250

[17] Johnson, Mark W.; Christensen, Clayton M. & Kagermann, Henning (2008) "Reinventing your business model", *Harvard Business Review*, 86(12), 57-68.

[18] Karnani, A. (2007). 'The mirage of marketing to the bottom of the pyramid: how the private sector can help alleviate poverty'. California Management Review, 49, 90–111.

[19] Koen, Peter A.; Bartels, Heidi M. J. & Elsum, Ian R. (2011). "The Three Faces of Business Model Innovation: Challenges for Established Firms", *Research-Technology Management*, 54(3), 52-59.

[20] Martini, A., Laugen, B.T., Gastaldi, L. and Corso, M. (2013), "Continuous innovation: towards a paradoxical, ambidextrous combination of exploration and exploitation", International Journal of Technology Management, Vol. 61 No. 1, pp. 1-22.

[21] Meinel, Christoph & Leifer, Larry (2011) "Desing Thinking Research" in Plattner, Hasso; Meinel, Christoph & Leifer, Larry (eds.) "Design Thinking: Understand – Improve – Apply", Springer, Heidelberg.

[22] Meyer, J. (2000) 'Using qualitative methods in health related action research', British Medical Journal, 320: 178-181

[23] Middleton, Michael R. (2006) "A conceptual framework for information management: formation of a discipline", Dissertation, Queensland University of Technology.

[24] Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2011). How Information Management Capability Influences Firm Performance. *MIS Quarterly*, 35(1), 237–256.

[25] Montoya-Weiss, M. M., & O'Driscoll, T. M. (2000). Applying performance support technology in the fuzzy front-end. Journal of Product Innovation Management, 17(2), 143– 161

[26] Nambisan, Satish (2013) "Information Technology and Product/Service Innovation: A Brief Assessment and Some Suggestions for Future Research", Journal of the Association for Information Systems, 14(4), 215-226.

[27] Nambisan, Satish; Lyytinen, Kalle; Majchrzak, Ann & Song, Michael (2014)." Information Technology and Innovation", Call for papers for *MIS Quarterly* Special Issue.

[28] O'Connor, Gina Colarelli & Rice, Mark (2013) "New Market Creation for Breakthrough Innovations: Enabling and Constraining Mechanisms, Journal of Product Innovation Management, 30(2), 209-227.

[29] Oke, Adegoke (2007) "Innovation types and innovation management practices in service companies", *International Journal of Operations & Production Management*, 27(6), 564-587.

[30] Perks, H., Gruber, T. and Edvardsson, B., (2012) "Co-creation in Radical Service Innovation: A Systematic Analysis of Microlevel Processes". J PROD INNOV MANAG 2012;29(6):935–951

[31] Petrovic , O.; Kittl, C. B. & Tekstenc, R. (2001) "Developing Business Models for eBusiness", *International Conference on Electronic Commerce,* Vol 3., JAI Press.

[32] Prahalad, C.K. and Ramaswamy, V., 2004. Co-creation experiences: the next practice in value creation. Journal of interactive marketing, 18 (3), 5–14.

[33] Raelin J (1999) Preface *Management Learning* Vol. 30, No 2, p. 115-125

[34] Rouse, W. B.; Boff, K. R.; Sanderson, P.; Leifer, L. J. & Steinert, M. (2011). Dancing with ambiguity: Causality behavior, design thinking, and triple-loop-learning", In*formation Knowledge Systems Management*, 10(1-4), 151–173.

[35] Sanders and Stappers (2008) Co-creation and the new landscapes of design. CoDesign Vol. 4, No. 1, March 2008, 5–18

[36] Shafer, Scott M.; Smith, H. Jeff & Linder, Jane C. (2005) "The power of business models", *Business Horizons* 48(3), 199-207.

[37] Vargo, S. L., & Lusch, R. F. (2008). Service-Dominant Logic: Continuing the evolution. Journal of the Academy of Marketing Science, 36, 1–10.

[38] Vargo, S. L., & Lusch, R. F. (2011). It's all B2B . . . and beyond: Toward a systems perspective of the market. *Industrial Marketing Management*, *40*(2), 181–187.

[39] Wheelwright, S.C. & Clark, K. B. (1992) "Revolutionizing product development: quantum leaps in speed, efficiency, and quality", Maxwell Macmillan Canada Inc., New York.

[40] Zott, Christoph (2011) "The Business Model: Recent Developments and Future Research", *Journal of Management*, 37(4), 1019-1042