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SMART SPECIALISATION STRATEGY DEVELOPMENT IN THE FINNISH REGIONS: CREATING CONDITIONS FOR ENTREPRENEURIAL DISCOVERY

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The European Union (EU) has adopted smart specialisation as an innovation (industry) policy framework to boost innovation and economic growth in EU regions. The central element of smart specialisation is Entrepreneurial Discovery Process (EDP) that can be defined as a bottom-up process involving businesses, research sites, public organizations and civil society working together to identify region's most promising specialisation areas and to overcome the potential weaknesses that hamper innovation. Despite the widely recognized status of EDP as a driver of regional innovation and economic transformation, its operationalisation has remained a challenge. We set out to investigate this with a research question: "What are the key factors underlying EDP and how to implement them for supporting entrepreneurial discovery in the region?" To answer this question we adopted a grounded theory approach and explored the dynamics of EDP through a case study in Finnish regions. Based on our interviews with 13 process facilitators of smart specialisation strategy development in 10 Finnish regions, we identified openness, engaging, networking and continuous interaction as the key factors underlying EDP. We further illustrate a process model of EDP. Our findings contribute to the theoretical debate on what constitutes EDP in the context of smart specialisation.

Keywords

Entrepreneurial Discovery, Innovation Policy, Innovation Strategy, RIS3, Smart Specialisation

1. Introduction

The key notion of smart specialisation was conceived in the EU's expert group "Knowledge for Growth" with Foray et al. [1], and in a short timeframe developed into EU's cohesion policy [2]. EU has set research and innovation strategies for smart specialisation (RIS3) as a precondition for all EU regions to receive funding from European Regional Development Fund (ERDF) and from EU Structural and Cohesion funds. To fulfil this precondition EU regions are required to identify the key activities, areas or technological domains in which they can have

competitive advantage, also globally, and to focus their regional policies to promote innovation in these fields [3].

The key principle that differentiates RIS3 from other innovation and industry policies is the entrepreneurial discovery process [3]. EDP as a concept is grounded in the work of Kirzner [4], which emphasises the role of knowledge and discovery and the views of Hausmann & Rodrik [5] on economic development as self-discovery. EDP can be defined as a bottom-up approach where stakeholders work together to discover and produce information about new activities and the government assesses the outcomes and empowers those most capable of realising the innovation potential [2] [5] [6]. The concept of entrepreneur here is understood in a broad sense (companies, higher education institutions, research institutes and individual citizens) to include anyone who is in the best position to be creative in integration of different approaches for new market opportunities [7]. The government needs to consult various stakeholders, as it alone has imperfect and incomplete information [8]. The role of private sector is to discover and produce information about new activities, and the role of the public sector, policy-maker, is to provide conditions for the search to happen, assess potential and empower those actors most capable of realizing the potentials [3].

In order to succeed in RIS3, a lot of demands is put on policy-makers. They need to change the logic from absorption of funds and the accounting of expenditures, towards facilitating the strategy process and working towards the goals, objectives and performance set there [6]. In order to do that policy-makers need to engage in an ongoing relationship with private sector [5]. They need to put emphasis on developing incentives for entrepreneurs to discover new domains, new mechanisms to detect novel ideas, supporting experimentation, building of inter-regional linkages and new educational programmes [3]. This means allowing for experimentation, which is typical of entrepreneurs, not of public sector. The main question for policy makers is: who has or where is the entrepreneurial knowledge and how to integrate the fragmented knowledge base so as to generate exploration and discovery projects [2].

Despite the strong emphasis on EDP in the context of RIS3, there are nearly no studies studying what constitutes entrepreneurial discovery [9]. Prior work has defined that EDP should identify and prioritise existing regional initiatives and potential processes on agreed regional criteria and objectives, and to support those initiatives included in the strategy [9]. However, how to do that in practice is still left unanswered, as there is lack of clarity and consensus of the concept of entrepreneurial discovery. While EU has published RIS3 guide [10] and S3 implementation handbook [11], regions are still in need of clearer instructions [12] [13]. Our research sets out to explore the actual dynamics of EDP in Finnish regions through interviews with RIS3 process facilitators. We aim at contributing to the theoretical debate on what constitutes EDP and how it manifests itself in the different phases of RIS3 process.

3. Research Methods

We adopt a grounded theory approach [14] [15] [16] being an appropriate method to examine a phenomenon that is dynamic in nature and for which there exists little prior knowledge. Our research is based on multiple cases, which allow us to compare our findings from different regions. This in turn supports the development of a more accurate, generalizable theory than

single cases [17]. We utilize semi-structured interviews as our primary data source, which is typical of studies based on grounded theory approach [15].

3.1 Sample

We identified our sample from EU's Joint Research Center (JRC)'s smart specialisation platform [18] in September 2016. At that time it included contact information for RIS3 responsible persons in 14 Finnish regions (out of 19). We included one additional region to whom the second author had the contact information. We contacted the responsible persons by e-mail and proposed a phone interview in September 2016. A few days later we called to those that had not replied to the e-mail. Finally, 10 regions accepted the 1-hour interview invitation, which we considered as a sufficient sample, covering slightly over half of the Finnish regions. All interviews were conducted as phone interviews, except for Helsinki-Uusimaa that was conducted face-to-face as being the region of our location. Table 1 provides a full list of regions that participated in the study, the organisation, the title of informants and interview date.

Table 1 Regional interviews

Region	Organisation(s)	Title of informant(s)	Interview date
South Ostrobothnia	The Regional Council of South Ostrobothnia	Manager of International Affairs	2016-09-19
South Savo	South Savo Regional Council	Development Manager	2016-09-20
Helsinki-Uusimaa	Helsinki-Uusimaa Regional Council	Innovation Adviser	2016-09-20
Central Ostrobothnia	Regional Council of Central Ostrobothnia	Manager of International Affairs	2016-09-20
Central Finland	Regional Council of Central Finland	Development Manager	2016-09-28
Ostrobothnia	Regional Council of Ostrobothnia	International Coordinator	2016-09-19
Oulu Region	Council of Oulu Region	Development Manager	2016-09-14
Satakunta	The Regional Council of Satakunta	Regional Advisor	2016-09-26
Southwest Finland	Regional Council of Southwest Finland	Senior Planning officer, Senior Planning officer	2016-09-14
Kymenlaakso	Cursor Oy, Kymenlaakso University of Applied Sciences (KYAMK)	Project Manager, RDI Director, RDI Expert	2016-09-14

3.2 Data and Analyses

Our interviews were semi-structured, following the questionnaire, but also leaving room for the respondents to openly express their views. The questionnaire concerned the practices, participants and the results of the latest smart specialisation strategy round in the regions. In addition to primary research data, we also collected secondary research data such as regional smart specialisation reports, presentations and related publications to get further

information of regional smart specialisation practices. This type of triangulation allows us to validate the findings, as we utilize several data sources [19].

We recorded, stored and analysed interviews through Atlas.ti software for qualitative analyses based on grounded theory approach. We first identified the activities and statements related to EDP and its operationalisation. We then coded these activities and statements with one sentence that described the essence of that specific activity or statement. We ended up having altogether 65 1st order terms, which we analysed through grouping similar terms with each other and labelling them under similar themes. These 2nd order themes we then developed into aggregate dimension describing the underlying category. We illustrate our data structure in Figure 1 in the chapter - Findings.

We present only a few selected 1st order terms to maintain the readability of Figure 1. After identifying the data structure, we started to develop a grounded theory model that shows the dynamic relationships between the concepts, themes and aggregate dimensions. The purpose of the model is to show the dynamic relationships between the newly derived concepts [16]. We present our model in Figure 2 in the following chapter. Finally, we compare our model with existing theories in the field to understand how our findings contribute to existing knowledge, which we discuss in the final chapter.

4. Findings

4.1 Finnish regional innovation landscape and the smart specialisation process

Finland has been characterised as Innovation Leader in EU Innovation Scoreboard, having position score 125% over EU average in 2015 [20]. In the regional level, Helsinki-Uusimaa is characterised as Innovation Leader and the rest of Finnish regions as Strong Innovators [21]. While Finland has firmly established regional innovation platforms, the focus in recent years have been to complement the traditional science-technology-innovation (STI) mode of innovation with doing-using-interacting (DUI) mode of innovation [22] [23].

According to our interviews, the RIS3 process is typically facilitated by regional council in Finland and forms part of the regional strategy. The Finnish regions have been accustomed to develop regional innovation strategies prior to smart specialisation policy. The importance of smart specialisation policy has been to foster the regional networking in the context of innovation and to further emphasise the international angle. All studied RIS3 processes involved large group of stakeholders representing triple or quadruple helix partners.

4.2. Factors underlying EDP in Finnish regions

Figure 1 illustrates our research process and its key findings as identified factors underlying EDP that are “Openness”, “Engaging”, “Focused Networking” and “Continuous Interaction”. As an example, we identified openness through first identifying statements from interviews related to stakeholder involvement in RIS3 process, and as we grouped similar statements together we formed a common theme “Enabling all actors to participate”. Figure 1 shows

examples of statements and the total number of statements found related to each 2nd order theme. We only illustrate a few statements in order to maintain readability of Figure 1.

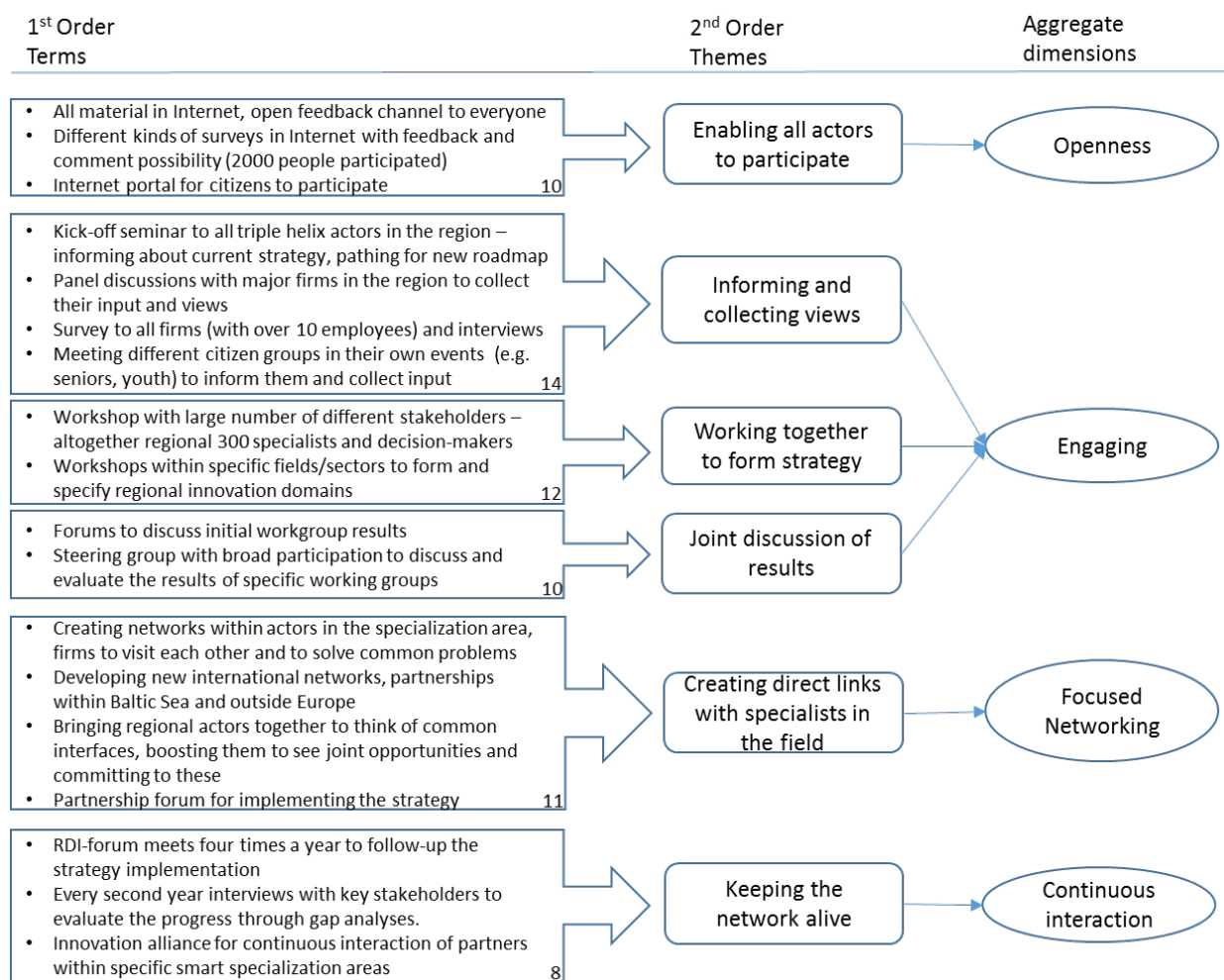


Figure 1 Data structure for identifying the factors underlying EDP

4.3 EDP process model

Figure 2 presents our EDP process model in smart specialisation context. We have organised the model in two phases – RIS3 strategy development and RIS3 strategy implementation. RIS3 strategy development involves two key principles for RIS3 policy-makers, which are to facilitate openness and engaging. As an example of openness, regional council in Central Finland has enabled all actors to participate in RIS3 process through having all material in Internet with open feedback channel to participate. As an example of engaging, Satakunta

regional council has participated in the meetings of diverse citizen groups to inform them and collect their views for RIS3.

RIS3 implementation involves two key principles for RIS3 policy-makers, which are to facilitate focused networking and continuous interaction. As an example of focused networking, Helsinki-Uusimaa regional council has organised events for the stakeholders within each priority area to facilitate the formation of direct relationships between the specialists. As an example of continuous interaction, the Finnish regions have adopted different mechanisms to keep the RIS3 network alive. For instance, Satakunta regional council organises Research, Development and Innovation Forums with participants from various stakeholder groups to meet four times a year to follow up RIS3 implementation. Oulu Regional council has formed an Innovation Alliance to enhance collaboration between different stakeholders in smart specialisation area. Kymenlaakso regional council has implemented a survey and South Savo regional council interviews with key RIS3 stakeholders to get feedback regarding the progress and performance of selected RIS3 strategy. The facilitation of continuous interaction is vital in order to lay sound bases for the next RIS3 strategy round to develop further regional smart specialisation strategies.

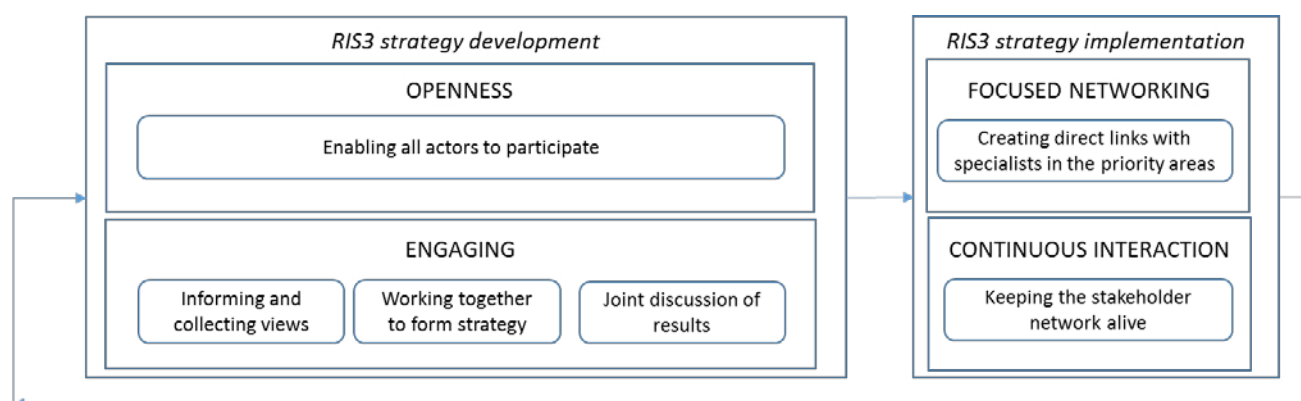


Figure 2 Process model of EDP in the smart specialisation context

5. Discussion

We set out to explore the dynamics of EDP in smart specialisation context in Finnish regions. Our research contributes to current theoretical debate and practice of EDP through opening the “black box” of stakeholder involvement in the context of smart specialisation. We identify the key factors underlying EDP - openness, engaging, networking and continuous interaction and develop a process model that illustrates how these factors are linked to each other.

When we compare our process model to other existing theories and frameworks, we find many similarities of it to social capital framework in strategy literature [24]. The factor of openness in our model is similar to enabling access of parties to each other in social capital framework [24]. This aspect has not been as central in the literature on smart specialisation that has primarily stressed the importance of triple helix partners. Our research provides a

few examples how to involve citizens in RIS3 process and have all material openly available for all citizens. The factor of engaging in our model involves key activities in RIS3 strategy development. It however does not clarify how exactly the engaging is performed. The motivation of actors to participate and to anticipate value of collaboration are key enabling factors in social capital framework [24]. This issue has also been raised in smart specialisation context regarding how policy-makers ought to develop incentives for entrepreneurs to participate [2] [3]. Our interviews did not shed light this aspect. This may be due to Finnish regional stakeholders being accustomed to collaborate with each other, as the public sector is an important financier in R&D projects between industry and academia. This issue may thus not be as difficult as in southern European countries [25]. Regarding whether the various actors are able to exchange and share knowledge, which is crucial to in social capital framework, our research emphasises the importance of the development of direct links between the specialists within smart specialisation priorities. Furthermore, similar to recent paper on EDP [9], our process model highlights that EDP needs to be adopted as a continuous process to fully facilitate regional innovativeness.

Our research has also practical implications. It defines the role of policy-makers in RIS3 process to be facilitating openness, engaging, focused networking and continuous interaction, and illustrates examples of implementation. As our research is based on a small number of interviews in Finland, the results cannot be generalized. We recommend future research to test the validity of our process model in other European countries and regions. Furthermore, we suggest future research to examine engaging part of our EDP process model in a further detail to shed light how to motivate regional stakeholders to participate in RIS3 process. This issue was not raised in our research, possibly due to the country-specific characteristics.

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