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Period: from 12. 04. 2016 to 28. 04. 2016

Place: SAVONIA University of applied sciences, Kuopio, Finland

Reference code: COST-STSM-FP1201-32786

STSM title: *Business models in forestry: exploring innovation potential*

Purpose of the visit:

The STSM aimed at contribute to exploring and understanding the business models and its design process in forest sector around Europe. The main objectives of the STSM were to complete the missing datasets and to finalize the analyses of business models data that have been collected in participant countries. Besides, one of the STSM objectives was to explore additional possibilities to upgrade the existing methodology, to elaborate the presentation for the final FACESMAP conference and to produce an advanced version of the future original scientific article (manuscript). The STSM objectives in essence built on data from several case studies across FACESMAP partners that have been performed in the last two years.

Description of the work carried out:

Due to logistic issues, the STSM de facto began two days earlier than planned. These two days were dedicated to becoming acquainted with the working environment and colleagues from SAVONIA. Afterwards, I started with the review of currently available data from case studies. Some data were missing in order to complete the analyses. Thus, after identifying the missing data, I contacted the corresponding researchers of the case studies and ask them to provide the missing data. While waiting for the response, I started searching and filtering the relevant literature, followed by reading and studying it. The main goal of the literature review and study was to design a conceptual framework that will be used for the analysis. Besides, additional knowledge on business models, research methodologies and methods was pursued. The literature review and study, and designing of the conceptual framework for the analysis took more time than expected. Nevertheless, the outcome of those studies is presented in the Section 3 of this report as well as in the enclosed draft manuscript. Furthermore, a workshop for business model design has been organized (on 13.04.) by SAVONIA researchers where I had the opportunity to participate on it. Visiting the workshop was a very interesting and educational, allowing me to experience the process of business model design and learn about it. In order to further expand my knowledge on Finnish research and business, I visited one start-up design company's CEO (on 14.04.), one laboratory (on 15.04.) and participated on a project meeting (on 20.04.). All activities listed above contributed to the understanding of business life cycles and experiences gained have been used in processes of thinking and writing.

Description of the main results obtained:

After obtaining the majority of missing data[1], analysis and synthesis have been performed using SAVONIA Into-tool and the methodological approach described below. The literature review and study resulted in a conceptual framework that integrates two aspects of a sustainable business for the analysis: an extended version of the business model canvas (see original work of Osterwalder and Pigneur, 2010) and the related main areas of a business: customers and competition, offering, infrastructure and financial viability, and second, a logical model for explaining the "earning logic"[2] of the business models to deliver a certain output in a particular context. The extended business model canvas introduced by Kajanus et al. (2014) includes three additional building blocks, namely customer needs, solution provided and the competition. The extended business model canvas and the four main areas of a business are depicted in Figure 1.

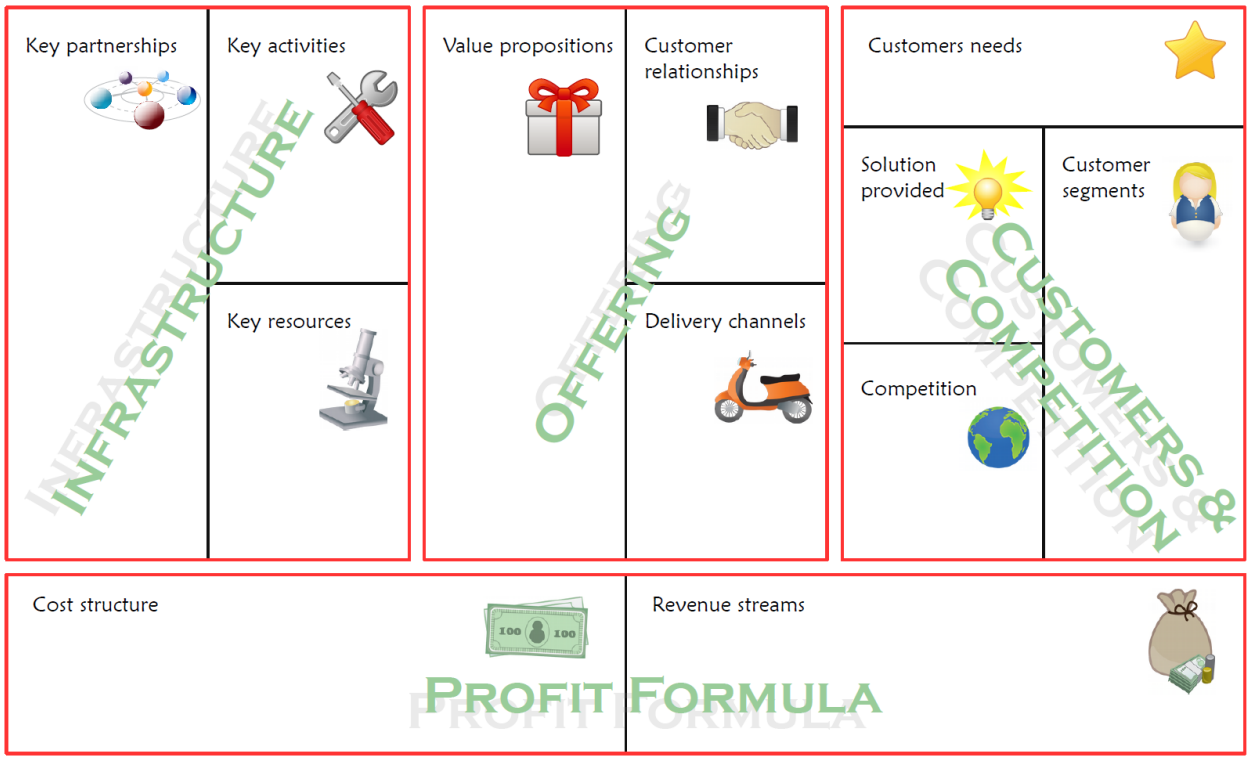

Figure 1: The extended business model canvas and the four main areas of a business (adapted from Osterwalder and Pigneur, 2010)

A two-step methodological approach has been designed based on the conceptual framework in order to assess not only the business models activities and structures, but also to explain the mechanism[s] that are triggered by those activities which, in particular context, produce those outcome[s]. In the first step, the case studies has been analysed following the methodology developed by Kajanus et al. (2014). Each business model has been evaluated according the extended business model canvas depicted above. A set of the most important elements (for each building block) for each case study was presented and analysed. The calculation of the so called core indexes is done through the use of multi-criteria decision support (MCDS) method based on the multi-attribute value theory (see Liesiö et al., 2007 and Kajanus et al., 2014). Since an ex-post analysis has been conducted, the results used of the first step (i.e. the business model design elements) were included in the CIMO-logic reasoning in order to analyse and synthesis the means and the causality that the case studies employ. The CIMO-logic (see also Denyer et al., 2008) approach employed

[1] Note: the data collection was based on a direct communication with other researchers, yet some among them (due to other responsibilities) could not manage to deliver the data on time; however, those data will be taken into account in the later phases.

[2] In the context of our study, the concept of earning logic does not attribute only to the logic of money earning, but it represent the entire specter of values and benefits that a business model brings to the managers.

offers an interesting and useful frame to explore and explain the business model "earning logic" and answer the question of causality between intervention[s] and outcome[s] (see Figure 2).

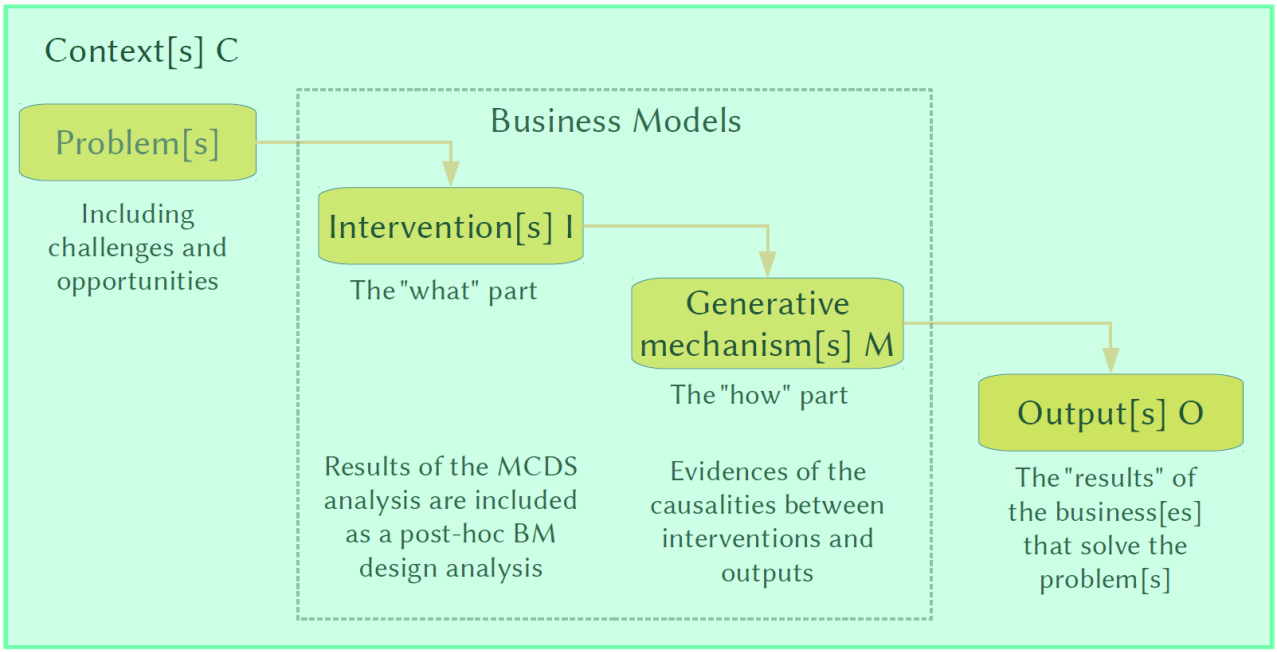

Figure 2: The conceptual framework for business model analysis

Each case study has been evaluated according to the above framework. In total, six case studies (existing business models) have been analysed. A comparative analysis has been initiated and a qualitative classification began to design for facilitating the presentation of results and draw policy recommendations for the innovation and business field concerning the European forest sector. In order to make a classification of existing business models outputs we categorized the business models from an innovation perspective according to Rametsteiner et al. (2005) as: product innovations and process innovations. The former is divided in product and service innovations, while the latter is divided in technological and organisational innovations.

The preliminary[3] results indicate that the analysed business models[4] mainly deliver either new service or organisational improvements. The business models analysed introduce new channels for reaching customers (e.g. Finland – eShop), satisfies new customer needs (e.g. Sweden – Permaculture), target new customers (e.g. Slovenia – auctions), reduce [transaction] costs (e.g. Czech Republic – SFOA), and improve customer relationships (Estonia – Commerce and Latvia – JSC). The most important areas of analysed business were the infrastructure and the offering. The core business models elements within the infrastructure and offering were the following building blocks: key resources (e.g. human resources, infrastructure), customer relationships (e.g. uniqueness, personalization) and key activities (e.g. innovative services, reinforced cooperation). Moreover, a difference was observed in the highly developed countries (e.g. Sweden, Finland) and ex-eastern bloc countries (e.g. Estonia, Latvia) in that the latter were mainly concentrated on organisational innovations, while the former focused on service innovation. The main mechanisms recognized vary according to the context, but as a general result we consider the following design proposition: in a context of changing forest ownership, emerging new forest owner types, changing

[3] The analyses are not considered finalized, until the comments and improvements of the manuscript from other authors will be received.

[4] Due to different methodological approach for business models in the idea phase or implemented phase, we began to study only the implemented business models. Nevertheless, data are available for business models in the idea phase and will be the subject of further studies.

Forest Owners Associations (FOAs) structures, membership decline, unstable legislative and business environment, ungrounded wood market (i.e. contexts), in order to improve forest management, increase the FOAs turnover or forest owner profit, reach new forest owners, overcome the distrust to cooperation and improve the organizational environment (i.e. outcomes):

- enhance *reliability* and *honest* membership of communities (i.e. mechanisms) by increase the professionality of FOAs and promote consultancy (i.e. interventions);
- increase the *motivation* of forest owners by offering them the possibility to sell (high-quality and rare) wood through auctions;
- ensure *democratic decision-making* by ensuring the creation of legal structure for joint ownership;
- enhance *efficient communication* channels by building partnership with traditional FOAs;
- stimulate personal *commitment* and *openness* to new ideas by offering field trips to permaculture areas;
- increase the *awareness* and *education* of forest owners by performing demonstration on selected topics.

The design proposition resulting from the above analysis and synthesis is only one tentative design proposition. It basically includes a combination of interventions that invoke particular generative mechanisms to produce particular outcomes in a specific context (Denyer et al., 2008). As such, the tentative design proposition offers us the possibility to understand the relationships between the interventions and the outcomes. For example, a legally grounded joint ownership might represent a tool to ensure the democratic decision-making in order to eliminate or reduce the distrust that originates from time when Estonia belongs to the Soviet Union. A legal entity (e.g. a company, FOA) might offer to forest owners (or FOA members) the possibility (at hand) to sell their wood in an organized way and thus increasing the motivation to manage their forests in order to increase his or her profit; the lack of motivation might originate from the unorganized and ungrounded wood market as a heritage of incomplete economic transition Slovenia went through. The above examples are only the introduction to the work that will be reflected in a scientific paper that will be submitted in the foreseeable future.

Main references cited:

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Future collaboration with host institution:

Since the host and sending institution are educational and research organizations contacts have been exchanged and seeds for future mobility programme has been planted. Many potential possibilities for student and researcher exchange are foreseen, particular in the field of business model design. Grounding for a common project proposal concerning business models in rural economies has been prepared. The beneficiary will also promote the business model design tool (In-To tool), developed by the researchers of the SAVONIA, at his home institution and elsewhere in Slovenia.

Projected publications/articles resulting or to result from the STSM:

The STSM had a clear intention to deliver an advanced draft version of the manuscript. The manuscript has been prepared and additional work will be done in the following months in order to improve it and submit it to a peer-review journal (e.g. Forestry, Business Horizons). Moreover, an abstract has been prepared and submitted for the final FACESMAP conference. The submitted conference abstract is enclosed to this report.

Confirmation by the host of the successful execution of the mission:

Dr. Miika Kajanus and hereby the host institution confirms that the STSM was carried out successfully with the signed Confirmation letter enclosed to this report.

Financial summary:

During the STSM in total 1.344 € have been spent. The main expense was the return plane ticket from Ljubljana to Kuopio (405 € or 30% of the total expenses). Room rental in a student dormitory amounted to 337 € or 25% of the total expenses. Expenses for food amounted to 290 € or 22% of the total expenses. Costs of local transportation (e.g. bus tickets, airport taxi and shuttle) amounted to 135 € or 10 % of the total expenses. Finally, other costs (e.g. visits, souvenirs, treats) amounted to 177 € or 13 % of the total expenses.

Other comments:

I would like to express my sincere gratitude to the Grant holder for giving me this opportunity to perform the STSM and contribute to the Action as well as to increase my knowledge. I am also thankful to dr. Miika Kajanus for inviting me to Kuopio, motivating me to discover the field of business (models) and supporting me during the studies, dr. Tuomo Eskelinen for his supporting conversations and prof. dr. Janez Krč for introducing me to the FACESMAP world.

Ljubljana, 25. 05. 2016