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What drives SMEs to innovate their Business Models? A Multiple Case Study of Slovenia

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Abstract

Business model innovation (BMI) has become increasingly important, especially with fast changing business environment. While large enterprises approach these changes more or less systematically, small and medium sized enterprises (SMEs) are left to their own resourcefulness. For the purpose of developing dedicated methods and tools to support different SMEs in addressing these challenges, we have conducted a multiple case study to identify drivers behind BMI. We propose an analysis framework and present the results of four Slovene SME cases analyses. The results show that all four enterprises have made changes of the business model elements, some even new value proposition. The findings revealed differences between companies regarding the drivers behind BMI and changes of the different

BMI elements. Two of four analysed companies see only opportunities while other two companies also struggles with internal or external threats. Overall, the results suggest all four SMEs, coming from different sectors, are facing BMI challenges without systematically addressing it and without using any dedicated BM ontologies or tools. The number of case studies included in the research is the major limitation of the study.

Keywords: business model, business model innovation, drivers of innovation, multiple case study

1 Introduction

Every enterprise employs a particular business model (BM), either explicitly or implicitly. To design a BM that is more than just a good logic of doing business, enterprise needs to assess internal and external factors concerned with customers, suppliers as well as the broader business environment (Teece, 2010). Even after a good BM is designed and implemented an enterprise needs to continuously re-think, re-design and develop its BM to remain competitive over time (Amit & Zott, 2012; Chesbrough, 2007; Teece, 2010; Zott, Amit, & Massa, 2011).

BM has been recognized as a valuable tool for building competitive advantages (Teece, 2010) and driving enterprise growth and profit (Casadesus-Masanell & Ricart, 2010). Only product or process innovations are according to Chesbrough (2007) insufficient for an enterprise to build and sustain long-term competitiveness. Therefore business model innovation (BMI) is becoming indispensable in practice (Amit & Zott, 2012; Casadesus-Masanell & Zhu, 2013; Chesbrough, 2007). In the past, a number of enterprises have successfully innovated their BMs (e.g. Apple, Ikea, EasyJet, etc …). However, there are still many enterprises that failed to renew or innovate their BM as well (e.g. Eastman Kodak, Encarta - Microsoft, Iridium – Motorola).

Many business leaders have difficulties with how to define and approach BMI (Giesen, Berman, Bell, & Blitz, 2007) what may lead to failure. Casadesus-Masanell & Ricart (2010) argue that business leaders are searching for insights on how to approach BMI. Furthermore, Teece (2010) argues that BMs are often poorly understood, because they are rarely analysed. Recent research has contributed greatly towards the understanding of BMI (Florén & Agostini, 2015), but the lack of empirical investigation of BMI phenomenon (Casadesus-Masanell & Zhu, 2013) and lack of systematic research on how enterprises should approach BMI (Bucherer, Eisert, & Gassmann, 2012) is acknowledged.

For a more systematic approach toward BMI several BMI frameworks were established (e.g. Bucherer et al., 2012; Florén & Agostini, 2015; Mahadevan, 2004). The frameworks can help to systematically investigate similarities and differences between BMs (Bucherer et al., 2012), but have mostly failed to establish general findings. The identified BM frameworks have been developed based on theoretical foundations and studies of BMI approaches mostly in large companies, while studies often neglected small and medium enterprises (SMEs). However, the European Union SMEs represent 99,8 % of all enterprises and are key drivers for economic

growth, innovation, employment and social integration (European Commision, 2014). Many European enterprises, SMEs and also large enterprises, still lack awareness and knowledge about approaches and proper tools on how to innovate their BMs (Envison, 2015a).

The aim of this paper is to gain deeper understanding of drivers that stimulate SMEs to innovate their BMs. For that purposes we conducted case studies in 4 different SMEs in Slovenia. In particular, we investigated core elements, similarities and differences of origin, and types of BMI. Understanding of different BMI approaches in SMEs will contribute to wider knowledge base in this field, which will enable to develop proper support for BMI in SMEs.

The paper is organized as follows. After introduction, we present literature review on BMI. Next chapter presents methodology, which is followed by case analysis and findings. We end with conclusions.

2 Business model innovation

According to Morris, Schindehutte, Richardson, & Allen (2006) the term business model (BM) have received a lot of attention since the 1990s. The main factors behind its increasing popularity are the growth of internet and e-commerce, the emerging knowledge economy, the outsourcing and offshoring of many business activities (Teece, 2010). Business model concept has evolved over time from a term that refers to a way enterprise does business (e.g. Gebauer & Ginsburg, 2003) to ontologies of generic components that constitute business models (e.g. Bouwman, Faber, Haaker, Kijl, & De Reuver, 2008; Osterwalder & Pigneur, 2010). Despite the contribution towards understanding of BMI, there is a lack of clarity and definitional consistency as well as theoretical grounding in economics or in business studies (Teece, 2010). The definitions of business model are focused on value creation (Teece, 2010), customer value (Osterwalder & Pigneur, 2010), customer and the enterprise value (Bouwman et al., 2008) or on the economic value (Gordijn & Akkermans, 2001). In this paper, we use the BM definition proposed by Osterwalder & Pigneur (2010, p. 14): “a business model describes the rationale of how an organization creates, delivers, and captures value”.

A business model is not static. It has to be managed and innovated over time (Chesbrough, 2007; Hedman & Kalling, 2003). Companies must continuously evaluate, adjust and develop their business models to remain viable and sustain future growth (Amit & Zott, 2012; Teece, 2010; Zott et al., 2011). The body of knowledge in this field is still rather immature. There are many different and partially contradictory definitions that represent a potential source of confusion (Florén & Agostini, 2015). Based on the literature review we identified two directions towards the understanding of BMI. BMI can be understood as a supporter of other types of innovation or as a sustainer of BMI uniqueness (Amit & Zott, 2012; Teece, 2010). In ENVISION project the following definition of BMI was adapted (Pucihar, Kljajić Borštnar, Heikkilä, Bouwman, & De Reuver, 2015): “BMI is defined as changes in business logic, that are new to the focal firm, yet not necessarily new to the world, and have to result in observable changes in the practices of a BM”.

There are different frameworks available for analysing BMI (e.g. Bouwman, MacInnes, & De Reuver, 2006; Bucherer, Eisert, & Gassmann, 2012; Florén & Agostini, 2015; Mahadevan, 2004). These frameworks mainly include the following aspects: the foremost reasons for enterprise to engage BMI (Bucherer et al., 2012; Carayannis, Sindakis, & Walter, 2014; Mahadevan, 2004), core BM elements that can be changed (Florén & Agostini, 2015; Mahadevan, 2004) and types of BMI (Bucherer et al., 2012; Florén & Agostini, 2015). The most compiling reasons for enterprise to engage BMI are cost reduction and flexibility (Pohle & Chapman, 2006). There are also other reasons (e.g. technology development, competition, legislation) behind BMI engagement and therefore several authors generally distinguish internal and external origin of BMI (Bucherer et al., 2012; Sorescu, Frambach, Singh, Rangaswamy, & Bridges, 2011). Carayannis et al. (2014) observe that BMI seems to be driven by internal and external opportunities and threat identified by Bucherer et al. (2012). These identified drivers may influence the change of core BMI elements. These elements usually origin from the existing business model ontologies (e.g. Bouwman et al., 2008; Johnson & Christensen, C. M. Kagermann, 2008; Skarzynski & Gibson, 2008). The level of changes of core BMI elements leads to the different types of BMI. Some authors differentiate between disruptive and incremental BMI (e.g. Comes & Berniker, 2008; Markides, 2006). Others argues that BMI covers changes from incremental adjustments to more radical changes, proposing a classification that distinguishes more than two before mentioned extremes (Bucherer et al., 2012; Florén & Agostini, 2015; Schaltegger, Lüdeke-Freund, & Hansen, 2012).

2.1 Framework of analysis

For systematic analysis of cases of 4 SMEs, we combined and adapted two frameworks for BMI (Bucherer et al., 2012; Mahadevan, 2004). Framework for analysis consists of three key aspects of BMI: origin, core elements and type of BMI (Figure 1).

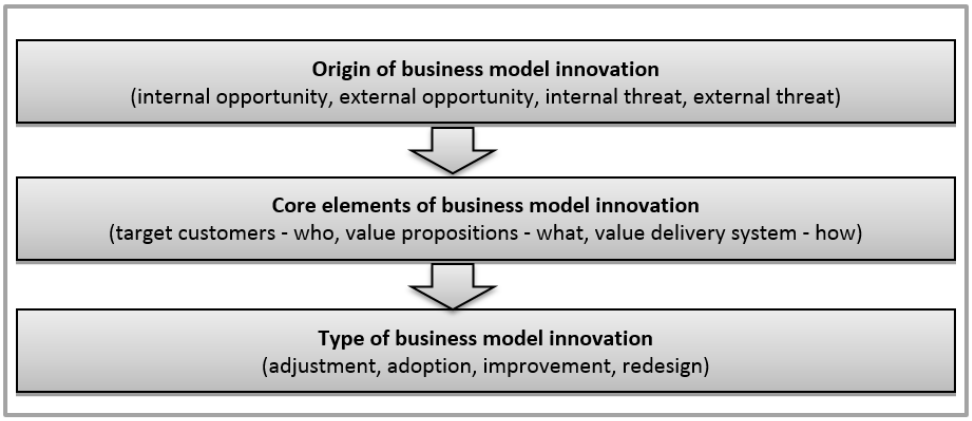

Figure 1: Framework of analysis (adapted from Bucherer et al., 2012; Mahadevan, 2004)

Origins of BMI

The innovation can be triggered in different ways. According to Bucherer et al. (2012) there are four different origins of BMI: internal opportunity (e.g. improvement of internal processes), external opportunity (e.g. changes in key technologies), internal threat (e.g. the outsourcing of certain activities or investment in new capabilities), external threat (e.g. competitive threat, market shift, legal changes). There can be only one origin of BMI or combination of more dimensions at the same time. Additionally, it is not necessary that specific origin of BMI triggers only one BMI of the enterprise. Enterprise can have multiple BMs and support multiple business logics, dependent on product/service market combinations and market segmentation (Pucihar et al., 2015). Last but not least an enterprise can perceive the specific trigger as an opportunity or as a threat. For instance, the changes in key technologies can one enterprise see as an opportunity that leads to improvement of processes or even new product/service generation, and another enterprise as a threat, because of the employee reluctance to learn and adopt novelty.

Core elements of BMI

Mahadevan (2004) argues that there are three core elements of a BMI, including “who”, “what” and “how”. The “who” element addresses the appropriate identification of customer and their needs in order to decide the value proposition (“what”) that needs to be provided to the targeted segment. When these two elements are set, the “how” element (value delivery system) can be configured. This element includes the operational aspects of the business (e.g. decisions about type of product and process technology to be adopted, asset configuration, the extent and nature of interactions with other supply chain elements) (Mahadevan, 2004).

To obtain more detail analysis, we have further divided the three core elements of BMI into sub-elements. The “who” element was divided into market area (What is the market area of the enterprise? - National and/or international) and types of markets (Which customers do the enterprise choose to serve? - business market and/or customer market and/or governmental market). The “what” element was divided into product offering and service offering. The “how” element we divided into value chain (How is enterprise configured to deliver value proposition to customer? - In-house and/or outsource), organization (How the enterprise sustains and enhances competitive advantages? - Employee deployment and/or employee development) and Information technology (IT) (How the enterprise exploits IT technology? - IT as a product/service enabler and/or IT as a promotion/sales channel). Employee deployment is understood as realignment of human resources to new work assignments or job responsibilities to meet operational needs (BC Public Service Agency, n.d.). Employee development is understood as providing learning conditions for employees to develop current skills and gain new ones (Lee & Bruvold, 2003). In the element how we did not cover revenue streams and under the technology sub-element only IT technologies were considered.

Types of BMI

The changes in the elements of BM influence the degree of BMI. In general many authors categorise BMI as radical and incremental (e.g. Zott & Amit, 2002). While the spectrum of possibilities lies across a continuum in practice (Bouwman et al., 2006) we adopted four types of BMI proposed by Schaltegger et al. (2012), that includes:

- BM adjustment refers to changes of only one business model element or a minor number of business model elements. The element of value proposition (i.e. modification of customer relationships, business infrastructure, or financial pillar alone constitute improvements) is in this stage excluded.
- BM adoption refers to changes that are made in order to match competitors' value propositions.
- BM improvement refers to changes of a major number of business model elements (e.g. customer relationship approaches, infrastructure elements), except the value proposition is not changed.
- BM redesign refers to changes that lead to a completely new value proposition, offering new products, services or product-services systems.

3 Methodology

For the purpose of this study multi-case study research, as a suitable methodology for obtaining insights into BMI approach, was used. The case study research method described by Yin (2009) was adopted. The case study research consists of design, data collection and analysis phases proposed in the Case Study protocol (CSP) of ENVISION project (Pucihar et al., 2015).

In the design phase the selection process, criteria and sampling method was determined. Sampling was purposeful; at least one of the cases has to qualify as a family business and one of them as a female business. These selection criteria were chosen because it is estimated that on average half of EU SMEs are family businesses (Mandl, 2008) and women entrepreneurs make up 29 percent of all European entrepreneurs (European Commission, 2014). An enterprise was considered as a family business, if the enterprise met the criteria proposed by Family Business Expert Group (2009). A female business was considered as a female entrepreneur which was defined by European Commission (2004) as "woman who has created a business in which she has a majority shareholding and who takes an active interest in the decision-making, risk-taking and day-today management". Based on selection criteria four Slovenian micro and small enterprises were invited to participate in the study.

Data collection methods, defined by CSP (Pucihar et al., 2015) were based on the preliminary investigation of available resources (business reports, web sites, media coverage) and semi-structured interview. The semi-structured interviews were conducted to gain a deeper understanding on BMI in selected enterprises. Different business model templates were used to encourage discussion. The interviews were recorded and transcribed. The transcription and other information gathered before and during the interview served for case study report

preparation. Some additional insights were gathered through e-mail, phone call or in additional short meetings. Each case study report was sent for approval to the enterprise contact person.

4 Case Analysis and findings

The four micro and small enterprises included in the study represent different sectors of the Slovenian economy. Our analysis was focused on drivers behind the BMI, changes made in BM and the level of BMI. First, we present a brief overall description of each enterprise, following with detail comparative analysis of cases. We conclude this chapter with the aggregated findings.

4.1 General characteristics

SME A

SME A is a family business that was founded in 1993. At the beginning the enterprise was focused in building log cabins, garages, pergolas and making wooden panelling, floor, slats, etc. Later on, in 2006, the enterprise shifted their value proposition to the production of wood biomass.

SME B

SME B is a female business that was founded in 2004. It provides a variety of handmade high quality leather shoes, hand bags and accessories with hand painted details.

SME C

SME C was founded in beginning of 1990's as internet service provider and has transformed over the years into high tech IT service and solutions provider in the field of High Performance Computing (HPC). Today it offers services of supercomputer infrastructure to their clients and provides them system administration, optimization and parallelization of code, cloud computing services, web and mobile application development services and project management SaaS services.

SME D

SME D is a family business established in 1992 based on their tradition and inherited chocolate recipes from their ancestor. Today SME D produces more than 150 different kinds of confectionary (sweets) products. They also offer customized products for individual/custom orders.

4.2 Comparative analysis

Origin of BMI

The drivers behind BMI in SME A are opportunities in the wood biomass market. While the production of wood biomass is quite fragmented they see the opportunity in connecting and collaborating with other wood biomass providers in Slovenian market. On the other hand, the internal opportunities are also present. The younger generation is more risk-taking oriented and therefore they start to collaborate with their competitors and participate in the projects (e.g. establishment of a biomass district heating system for a six apartment blocks for which they received an EU grant).

SME B main driver for the innovation was internal threat related to the time management challenges. The owner wanted to dedicate more time to design and make new products, but without any help she was not able to run the store and to have sufficient number of products on the stock at the same time. The owner also noticed that the Slovenian market is too small for the unique products that she offers and she sees the potential in foreign markets (external opportunities).

SME C drivers behind BMI are a combination of internal (highly skilled experts) and external opportunity (emerging technologies which they combine together with specialized customer focused services to solve customers' problems).

SME D drivers behind BMI are also combination of internal and external opportunity and external threat. Internal opportunities are driven by joy to produce high quality products which will be successful on market. External opportunities are more related to geographic positioning of enterprise stores locations in such a way to attract high number of visits of customers in their stores. The enterprise also encounters external threat in a form of high level competition, especially when the enterprise participates in public procurement markets.

Core elements of BMI

Who

SME A has the customers not only in Slovenia, but also in neighbouring countries. They are doing business with other companies, end customers and also with public institutions. The majority of customers are companies. In Slovenia they have fewer customers but they are trying to position themselves as relying supplier for wood biomass.

SME B does not know their customers very well, because its aim is to design and create unique leather products. The store is located in Bled, one of the most popular Slovenian tourist destinations. The customers are mostly foreign tourists and local people who know the brand and/or like that kind of art.

SME C operates on both national and Central Europe market depending on type of services offered. They are primarily focused on offering services for other enterprises, only small part of their service portfolio is offered to end customers.

SME D main customers are tourists and also some local customers which are most often returning for their high quality confectionary products. The remaining share of their revenues comes from business and governmental market during high season for business gifts and presents around New Year's holidays. Time to time they get orders from abroad.

What

SME A the main goal is to offer all available wood biomass heating options in order to meet variety of customers' needs regarding wood biomass and maintain a competitive advantage. They exactly know what the trends in the production of wood biomass are and how to satisfy their customers. They are also offering log cabins, garages, pergolas, etc. but they are currently focused more on production of wood biomass.

SME B mainly relies on the creativity and the quality of the products. The added value for the customers is uniquely designed high quality products (shoes, bags, and accessories) with various hand techniques used.

SME C provides their clients end to end IT solutions for their problems. They are offering services on their own HPC platform or they guide clients for building their own HPC infrastructure. They are also offering classical IT system administration and software application development services. In addition, they are also specialized for implementation of their own cloud based project management solution; therefore they offer various services.

SME D has a large portfolio of more than 150 handmade chocolate pralines and chocolates. Their main value offering is high quality handmade chocolate confectionaries, constant quality of products and customized confectionary products for corporate customers.

How

SME A is a small enterprise with limited resources and capabilities. Without the help of their partners' network they would not be able to offer all the available wood biomass heating options. They have good connections with the companies in Austria, which is one of the leading countries in the field of wood biomass usage. The knowledge they achieve through those connections helps them to be ahead of the Slovenian competition. The director is the one who transmits the achieved knowledge to employees and encourages them to gain new skills. In 2015, because of the growth of the enterprise, they needed to reassign their employees to new assignments and even employ new employees. The enterprise is very flexible and is willing to take risks to achieve competitive advantage. All the gained profit is invested in development of the enterprise, especially in biomass technologies.

SME B is also relying on partners. In order to make high quality products, the enterprise needs to have suppliers that offer (raw) material of high quality (e.g. leather, dye). While the enterprise is more focused on design and painting, the sawing part is executed by reliable subcontractor. Enterprise needs only basic tools such as scissors, skiving knifes, brushes. Besides, the creativity a lot of time without distractions is needed. While working in the store and making the product at the same time was not very productive, hiring an assistant to help in the store was the most logical option. In the beginning the assistant only helped in the store, since recently she also helps managing the paperwork. In order to attract the customers from abroad the enterprise created an online store and is involved in social media.

SME C uses state of the art IT infrastructure to deliver new services in domains where IT have not been used before. They also partner with other R&D institution like universities and research institutes in order to keep up with rapid development in the field they are operating. They also partner with their clients for specific improvements and upgrades of their existing product and service portfolio. SME C is typical project type of organization and they would assign their employees to projects. They have weekly meetings (planning work) and monthly meetings (overview of the main activities and the status of projects) which can also result in reassignment of employees to different projects where needed.

SME D on the other side heavily rely on their own resources to deliver products to the market. They have their own independent production of their products. Sale of products heavily depends on customers visits to their stores. They typically partner with touristic service providers to include stop of touristic bus at their store location which enable tourists to buy some authentic locally produced confectionary item in theirs stores. SME D has smaller number of core employees at their production location and number of contract employees who are deployed dynamically where needed to work in stores to sell the products or in chocolate production mainly in packaging activities. They also have an online store.

Types of BMI

SME A is following good practices in the field of wood biomass and have changed value proposition (offering all available wood biomass heating options) as well as some other BM elements. First of all the SME A changed the approach towards the customers, especially the foreign companies. They connected with partners who have connections with the foreign companies who are using wood biomass. Similarly, they are trying to convince other providers of wood biomass to work together on bigger projects that individual enterprise (biomass provider) is not capable to cover. Enterprise also reassigns their employees to new assignments and bought additional technologies for the biomass production. The enterprise classifies to BM redesign type of BMI.

The owner of SME B is driven artist; she enjoys designing new products, and less running a business. She saw the change of the legal status as an enabler for other changes of BM. She was finally able to employ an assistant to help her with daily tasks. Consequently she had more

time to design new products, produce more products, launch online store and be more active on social media. Furthermore she encounter some negative consequences. Before the change she did not need to run an inventory. She was also not liable to tax in a way that sole proprietorship is. While she could not afford to increase the prices of her products for 22% (general tax rate of VAT), her work became less valued. Furthermore, she has additional salary expenses (payment for her assistant). The enterprise classifies to BM improvement type of BMI.

SME C is usually upfront market trends and thus has to redesign the BMs to adjust the value proposition to the potential customers. For instance, at the beginning their idea was to lease only infrastructure for HPC, but this did not generate enough revenue to cover the high maintenance costs, let alone to create profits. Therefore they started to lease HPC along with specialized services in the cloud and focused mostly on manufacturing SMEs. The enterprise classifies to BM redesign type of BMI.

SME D has more stable BM and they only introduce incremental changes into their offering. Two years ago they renewed their website and introduced online shop. Each year they introduce a couple of new products and if they are a success on a local market, they start to sell them in all of their stores. The enterprise classifies to BM adoption type of BMI.

The aggregated findings of comparative analysis are presented in Table 1. The table was used to derive an overview of BMI key drivers, core elements of BMI and type of BMI for each of four cases. The changes are labelled as x.

Criteria based on framework of analysis				SME A	SME B	SME C	SME D
Origin of BMI			Internal opportunity	x		x	x
			External opportunity	x	x	x	x
			Internal threat		x		
			External threat			x	
Core elements of BMI	Who	Market area	National	x	x	x	x
			International	x	x	x	x
		Types of markets	business market	x		x	x
			customer market	x	x		x
			governmental market	x			x
	What	Types of offering	Product	x	x		x
			Service	x		x	x
	How	Value chain	In-house	x	x	x	x
			Outsource	x	x	x	
		Organization	Employee deployment	x	x	x	x
			Employee development	x		x	
		Technology	IT as a product /service enabler			x	
			IT as a promotion /sales channel		x		x
Types of BMI			Adjustment				
			Adoption				x
			Improvement		x		
			Redesign	x		x	

Figure 1: Aggregated findings of comparative analysis

4.3 Findings

Surprisingly, all four enterprises have made changes of the BM elements, some even new value proposition. It seems that all the interviewees mentioned only major changes because small changes are made on a daily basis and companies do not perceive them as innovation of their BMs. This assumption is made based on the interview with the SME C. The interviewee said: “We are constantly changing, facing minor as well as major changes. The major changes are planned, approached more systematically, while the minor changes are usually executed without preparation and in parallel with other daily assignments”. Therefore we agree with Teece (2010) who states that minor changes in the manufacturing process usually does not require BMI.

All four cases are well established SMEs, being on the market for more than 10 years. They have encountered several major changes in the time of their existence but none of them have used any of known BM ontologies or tools. For example, one very interesting quote that interviewee from SME A has stated is: “my concerns are that, if our growth rate will continue, I

will not be able to have everything in my mind and I think that some sort of simple BM tools would be of significant value for me".

The analysed companies have changed few or several core elements of BMI. While they are constantly making minor changes, the major changes are usually made every few years. The changes in the four analysed cases are not categorized as of a same type of BMI, because not all of the cases have made changes that lead to completely new value proposition. Among all four analysed companies only SME B did not consider BMI as successful. The owner said: "The changes are not considered successful so far." Perhaps because the owner is driven artist with lack of interest in running a business. Interestingly, among the three companies that considered changes in their BMI as successful, only SME A acknowledged growth in the profit. Director said that they acknowledge "approximately 300 to 400% growth in last several years".

Two of four analysed companies are offering different product or services that require different business logics. Both companies, SME A and SME C, have made major changes only in the business logic of one product or service, namely the one they are currently focused on. For example SME A changed only business logic of wood biomass, while business logic of other products remains the same. The owner has stated: "We are currently focused only in the wood biomass, because it represents 90 % of all revenue."

Last but not least, IT technology was identified as BMI driver as well as a part of BM element that was changed. IT as a BMI driver was identified only by SME C, while other three SMEs did not give considerable emphasis on IT. Nevertheless, all four analysed companies have invested into technology development, not only IT. SME A mostly invested in the development of wood biomass production technologies while the other three companies mainly in the ICT technologies. SME C has heavily invested in ICT and HPC, as IT services are their core business, while companies B and D have developed their presence on the internet (web store, social media profiles).

5 Conclusion

BMI has become a key concern for enterprises to stay competitive and successfully overcome nowadays challenges from rapid changing business environments. However, most of the enterprises, especially SMEs have little knowledge and awareness about critical importance of BMI systematic approach, and supportive methods and tools that could be used.

The present paper analysed this issue based on four case studies. Our findings were validated by theoretical insights from the field of BMI. Contributions of this paper are twofold. First, we proposed framework for BMI case study analysis, which has been developed based on prior frameworks. Second, we performed a comparative analysis between four SMEs, two of them being family and one female business. More specifically, we investigated similarities and differences of origin, core elements and types of BMI in four different SMEs in Slovenia.

The main conclusion is that the external opportunity is the main driver that influences SMEs decision to innovate their BM, but it is not the only one and is usually combined with at least one internal driver. Regardless of the drivers, one should expect that family businesses are more careful and not prepared to conduct major changes of BM. In one of the cases we showed the contrary. Perhaps the younger generations are more willing to take risk, even though they can endanger income for the whole family. Regarding the female business we can not draw any conclusions because we have only one case. Overall, all four analysed SMEs approached BMI intuitively, usually using only spreadsheets or other similar tools.

Looking at the fact that very few studies have given attention to BMI in relation to SMEs, the findings of this study provide some useful information regarding the BMI practices in SMEs. However, there are also limitations of this study. The limitation of this study is mainly concerned with the number of cases currently conducted for this study. Another limitation is that all the cases, presented in this paper are done in one country. Further research should focus on more cases, including SMEs of various sizes, from various industries and various countries. This will be done in the scope of Envision project. Further research will help us to expand the knowledge about BMI practices and needs of SMEs to provide them with proper frameworks and tooling for evaluation, redesign and innovation of their BMs. Last but not least, for more detailed analysis the proposed research framework needs further elaboration.

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