The Aquaculture Industry and Opportunities for Sustainable Tourism

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Tourism is an important industry in the growth of GDP in many countries, while aquaculture covers more than half of the demand for fish in the developed world. The demand and competition for farmed fish are increasing worldwide, as is the awareness of the importance of the further development of sustainable small business. In this view, innovation is crucial to promoting sustainable business models that can achieve a solid economic performance and at the same time take care of the natural environment. This article contributes to the literature on sustainable business models with a descriptive case study of the complementarity of a single fish farming company and tourism activities. The case study of a sustainable business model in aquaculture has been analysed with the use of a business model canvas that links various market-oriented elements of a business model with different stakeholders' needs.

Keywords: aquaculture, tourism, brand, development, sustainability, business model canvas, co-natural processes

Introduction

Aquaculture is one of the fastest growing food-producing industries, accounting for about half of the total fish supply (FAO Fisheries and Aquaculture Department, 2012; Fischer, Jorgensen, Josupeit, Kalikoski, & Lucas, 2015) and fish is traditionally considered to be healthy. There are some uncertainties about the specific health benefits of some nutrients in seafood, but it is accepted that seafood consumption is a key part of a healthy diet. In most countries around the world, the health benefits of eating fish are recognized by experts and the public alike (Schlag & Ystgaard, 2013; Scientific, Technical and Economic Committee for Fisheries, 2014). One of the aims of the KnowUs Interreg research project was to develop and test methodologies, instruments, and procedures for creating strategic-cognitive maps of sustainable small and medium-sized enterprises (SMEs). The methodology that was developed within the project originates from a pre-existing methodological model known as a Competitive Knowledge Audit, developed by researchers at the University Ca Foscari of Venice, in cooperation with companies from Veneto and Friuli Venezia Giulia (Bagnoli, 2012; Know Us, 2013).

We present a case study from the food and agriculture sector: Fonda.si LLC (Fonda.si) as an exem-
plary case study of a sustainable business model (BM) (Dravinec, 2015; Janič, 2014b; Lagorio, 2012; Trebar Lotrič, Fonda, Pletersk, & Kovačič, 2013), whose activities have become interconnected with tourism. Fonda.si, as a family-owned aquaculture company, has grown into a successful small business. It was founded by Mr Ugo Fonda 40 years ago; he has been succeeded by his daughter Irena and son Leon. Fonda.si created a unique niche in the market through the sale of 80% of their products in Slovenia; the remaining share of sales is 10% in Austria and 10% in Italy. Some years ago, they opened a franchise farm in Croatian Osor in the Cres Island and expanded aquaculture facilities in the Bay of Piran. The fish brand Piran Seabass has been developed with the vision of acquiring the title of ‘the best fish in the world’ (Janič & Biloslavo, 2013; Janič & Trnavčević, 2014). In 2016 they sold the company to an Italian-owned enterprise Valle Ca’ Zuliani, which has a similar philosophy. The new owners paid off the debt and capitalized the company. They are planning to expand the farm from 50 to 200 tonnes of fish per year (Marn, 2016).

**Literature Review**

**Aquaculture Tourism**

Coastal waters are a precious resource for multiple human activities, such as leisure, recreation, sailing, tourism, fishing and, recently, aquaculture. Socio-economic conflict can be exacerbated by the high pressure of tourism and the need for the proper management of natural resources. Stephanou (1999) states that ‘tourism and marine aquaculture interact both positively and negatively on each other and an integrated approach is advisable on coastal zones.’ Deniz (2001) calls for planning and implementing a strategy to manage conflict between aquaculture and other stakeholders as aquaculture facilities were placed in the protected shallow bays, which resulted in visual and organic pollution, and thus caused conflicts between aquaculture entrepreneurs and other users. The issue of environmental sustainability is particularly appropriate in planning for the development of long-term coastal tourism. Holistic integrated coastal zone management delineates different uses of coastal zones, such as tourism, fishing, and aquaculture (Primavera, 2006). Miller and Hadley (2005) assert that better understandings of tourism-aquaculture interactions could lead to an improvement in single-sector governance with partially integrated coastal management. The research of Nimmo, Cappell, Huntington, & Grant (2011) provided ‘qualitative evidence that the current levels and future developments or expansion of aquaculture operations will not affect visitors’ willingness to re-visit the case study sites or affect their key recreational activities.’

**Sustainability and Innovation**

There is no doubt that sustainability has become the strategic imperative of the new millennium and that it encompasses a holistic approach in which issues of social, financial, health-related and educational sustainability underpin the fundamental notion of environmental sustainability. As companies increasingly link sustainability with long-term business performance, sustainability is of growing interest in the area of performance management (Bocken, Short, Rana, & Evans, 2013). Sustainability is the ability of an organization or a system to maintain a certain level of performance for a long-term period without compromising the ability of future generations to meet their own needs (Barnard & Van der Merwe 2016, p. 210; Bocken et al., 2013; Galpin, Whittington, & Bell, 2015; Jones, Clarke-Hill, Comfort, & Hillier, 2008; Wagner & Svensson, 2014). Sustainability and with it sustainable BMS are today a necessity more than a niche (Kozłowski, Searcy, & Bardecki, 2015, p. 378). However, the application of sustainable for-profit organizations, in general, continues to be a highly-debated topic. Concerns have been raised regarding the necessary changes needed to integrate sustainability into a BM from the very beginning of the product design process as in the case of Fonda’s Piran seabass (Fonda, 2013a; Kozłowski et al., 2015).

From an SME perspective, innovation frequently refers either to new products or processes, which address customer needs more competitively and profitably than existing solutions do. The principal source of successful innovation is the knowledge and experience of people within an SME, in particular the innovation orientation of the owner/manager (Cum-
mins, Gilmore, Carson, & O’Donnell, 2000; O’Dwyer, Gilmore, & Carson, 2009; Galpin et al., 2015; Guo, Zhao, & Tang, 2013). Smith-Sebasto and Shebitz (2013) defined sustainable innovation as one that addresses sustainability issues and promotes continued naturally and socially acceptable rates of economic growth. Sustainable orientation and sustainable innovation represent key factors for an SME’s profitability and long-term growth that is based on the understanding and fulfillment of stakeholders’ interests (O’Dwyer et al., 2009; Guo et al., 2013). At the same time, it is evident that product and process innovation no longer offer sufficient advantage over competitors in the long run (McGrath, 2011). Competitors are quickly able to copy innovations, product life cycles are becoming shorter, and competitors from low-wage countries have considerable cost and consequently price advantages. At the same time, information and communication technologies (ICTs), offer unprecedented opportunities to rearrange value creation activities in new and different ways. Hence, companies consider business model innovation as an opportunity to build sustainable competitive advantage (Teece, 2010) as well as to reconsider them in a more environmentally friendly view (OECD, 2012).

Business Model and Innovation

A need for innovating existing BM can be found in Porter’s statement that only companies that succeed in building a sustained competitive advantage will be successful in the long run (Porter, 1996); this implies performing different activities than their competitors or similar activities in different ways (Porter, 1996; Lindgren, Falck Saghau, & Knudsen, 2009; Philipson, 2016). Therefore, a company’s value creation and distribution processes need to be differentiated from its competitors.

BM as a managerial concept has three common themes: (1) it emphasizes a holistic approach to explaining how companies ‘perform business;’ (2) it focuses on companies themselves; and (3) it explains value propositions, creation and value capture (Chesbrough 2007; Biloslavo, 2014; Guo et al., 2013; Pels & Kidd, 2015, p. 202; Zott, Amit, & Massa, 2011).

Magretta (2002) defines BM as the answers to the questions of who the company’s customer is, what the customer values, how the company captures value, and which economic logic explains the way that value is being delivered to customers at an acceptable cost. In the review of Zott et al. (2011), a common viewpoint of different definitions has emerged, that BM is a ‘system level concept centred on activities and focused on value.’

Every company has a BM, whether it articulates it or not. At its heart, a BM performs two essential functions: value creation and value capture. A BM explains who your customers are, how you provide value to them and how you will retain part of that value. In contrast, strategy identifies how you will outperform competitors by being different. The BM includes the key components of a business plan, but the business plan comprises a number of additional operational issues that go beyond the BM; a BM is not a business strategy, but it also includes some elements of the strategy; a BM is not a business process, although it is a part of it (Abraham, 2013; Biloslavo 2014, p. 17; Chesbrough, 2007; Guo et al., 2013; Teece, 2010).

Between the BM, business strategy, and business processes, there is a kind of hierarchical relationship with the business strategy at the top, the BM underneath and business processes on the bottom. When a company develops its business strategy, it simultaneously develops its BM. However, if the company develops its BM, it does not mean that it has also developed its own business strategy, which seems like a logical consideration that also applies to the relationship between BMs and business processes (Biloslavo, 2014). Trimi and Berbergal-Mirabent (2012) argue that BM research ‘does not only consist of discovering how to create a more successful business, but in exploring how companies can better learn from their own experience and improve their entrepreneurial outcomes.’

The BM concept also has some limitations. For example, it does not help an organization to develop a growth strategy in terms of acquisitions, mergers or diversification. For the aforementioned issues, strategic analysis and appropriate strategic planning are still needed (Abraham, 2013; Bocken et al., 2013, pp. 483, 489; Elkington, 1997; Hargadon, 2015; Biloslavo, 2014; Wagner & Svensson, 2014; White, 2009).
Österwalder, Pigneur, and Tucci (2005) and later Österwalder and Pigneur (2010) proposed a conceptual tool called ‘a BM canvas’ that helps companies to visualize, understand and innovate their BMS. Using a BM canvas makes it possible to evaluate the business idea together with different aspects: creation process and financial aspects, added value and customer relationships. With the use of the canvas, companies can assess where their current BM stands in relation to its potential, and afterward they can define appropriate next steps for the further development of that model.

In our research, a BM canvas was used as a narrative framework for a description of the Fonda fish farm. Key elements of the BM canvas applied were adapted from the popular canvas developed by Österwalder and Pigneur (2010) who defined BM based on nine (9) elements: customer segments, value proposition, distribution channels, customer relations, key resources, key activities, partnerships, revenues streams, and cost structure. According to Österwalder and Pigneur (2010), a BM describes the rationale of how an organization creates, delivers, and captures value. One benefit of this definition is that each of its nine elements identifies where innovation might generate new value in an industry (Abraham, 2013; Biloslavo, 2014; Bocken et al., 2013; Chesbrough, 2007; Österwalder & Pigneur 2010). The building blocks of the BM canvas provide a schematic and comprehensive view of a business process, and Österwalder’s canvas approach has been widely recognized by scholars and practitioners and empirically validated (Boillat & Legner, 2013; Zott et al., 2011).

However, Österwalder’s BM canvas also has some serious limitations. The first is its linearity (its shape is neither a circle nor a triangle) that somehow de-emphasizes feedbacks that exist between various elements of the BM in practice. The second is that it does not consider society, which is a critical aspect for every BM, even more so considering general concerns about sustainability and a need for innovation. The third is that, within the value proposition, the author defines the value proposition itself as well as products that a company offers to the market.

In order to tackle these limitations, we applied an enhanced BM canvas that emphasizes three main ideas:

1. Product innovations based on technology are important (technology pushes innovation at the level of products) but simultaneously design-driven innovation (Verganti, 2009) is also important. When discussing innovation, generally people refer to technology and to the product as an artefact.

2. Product innovations are important but probably BM innovations are even more so (e.g. Dell, Ikea, RyanAir, Nespresso). BMS are important both when you have technology innovations but also when you have design-driven innovations. BMS are not very important if you are developing a market-pull innovation since, generally, you do not need to change your BM to answer customers’ requests (i.e. usually these changes represent incremental innovation).

3. The role of society is critically significant for BM innovation and superior business performance. By facing social issues, a company can generate new ideas about how to solve its business problems. Furthermore, if a company is able to satisfy the needs of society, it could be easier for it to satisfy the needs of its customers.

It has been argued by Massa & Tucci (2014) that an innovative BM is needed to commercialize new ideas and technologies. A better BM will often beat a better product or technology. Existing approaches to sustainability may be relevant for specific aspects of value design and delivery, but BM innovation offers a more holistic perspective that incorporates all three dimensions of sustainability (i.e. social, environmental, and economic). As with some other interdisciplinary topics, sustainable BMS are frequently mentioned but rarely analysed (Teece, 2010, p. 192). Therefore, presenting and interpreting practical examples of BMS in the form of study cases is eminently valid (Philipson, 2016, p. 136). BM innovation is regarded as the process of (re-)aligning and/or changing the BM and its inherent parts in response to internal and external stimuli (Kindström & Kowalkowski, 2014). A true BM innovation requires some substan-
tive changes to the value proposition, products, and processes. Further development of the circular economy, an industrial economy that is producing no waste and pollution, can be sustained only if businesses will be able to innovate existing BMS.

Fish Farming

Fish farming has a long history in the Mediterranean region, with evidence of capture and feeding going back over 2000 years. Seabass and seabream are produced in most of the twenty-plus Mediterranean countries. Farmed seabass and seabream producers tend to be SMEs; most companies are still relatively small, as 90% of the employees are employed in companies with less than ten employees. These companies are often family owned and have no or very limited intention to increase production. Consequently, large investments to increase production are not possible for many of these businesses due to the lack of capital or market demand. Although some larger organizations have emerged as the sector has developed; food supply from aquaculture is expanding while wild fish yields diminish because of overexploitation and migration (Fischer et al. 2015). According to the observation of Scientific, Technical and Economic Committee for Fisheries (2014), only a limited number of countries expect substantial growth in the sector despite the general desire by EU member states to expand production (Schlag & Ystgaard, 2013; Scientific, Technical and Economic Committee for Fisheries, 2014, pp. 14–18; Wagner & Young, 2009).

In general, European consumers have little knowledge or awareness regarding the origin of fish. This results in uncertainty in consumers’ perception of farmed fish in particular. This case study is in line with other research, suggesting that perceptions of aquaculture and farmed fish are based more on emotions than on rational considerations. Still, the perception of farmed fish is positive in general (Fonda, 2013a, 2013b). Consumers do not prioritize fish origin as an information cue during the fish purchase and consumption decision process, although variation is present between different consumer groups (Honkanen & Olsen, 2009; Vanhonacker, Altintzoglou, Luten, & Verbeke, 2011).

The more environmentally concerned consumers are willing to pay a premium for fish products sourced from fisheries that are managed in a sustainable manner (Janeš & Biloslavo, 2013; Janeš & Trnavčević, 2014). Recently, another important value concept that is linked to sustainability issues has increasingly gained importance on the market: good traceability systems decrease the probability of a certain food safety problem and provide an opportunity to improve the overall level of food safety. Companies could benefit from traceability systems associated with quality and safety assurance mechanisms (Honkanen & Olsen, 2009; Mai, Bogason, Arason, Árnason, & Matthiasson, 2010; Trebar et al. 2013). The finding that the consumers are concerned about fish welfare issues, in general, may indicate that fish welfare and sustainability in farming are an up-and-coming issue among consumers (Ellingsen et al. 2015; Thøgersen, Haugaard, & Olesen, 2010).

The findings of Pieniak, Verbeke, Scholderer, Brunso, and Olsen (2008) indicate that European consumers are very interested in health and healthy eating. Health involvement is found to be an indirect driver of both subjective health and fish consumption, whilst interest in healthy eating emerges as a direct driver of fish consumption behaviour. Thus, reinforcing existing health beliefs might be important in the development of effective strategies and communication for stimulating fish consumption.

Due to natural circumstances, the development of marine fish farming in Slovenia is limited. Mariculture takes place in the Bay of Strunjan, the Bay of Debeli Rtič with shellfish farming, and in the Bay of Piran with fish and shellfish farming. Slovenian mariculture practice is traditional; fish farming takes place in cages submerged in the sea, while mussel farming takes place in lines of floating buoys linked together (Fonda, 2013a; Scientific, Technical and Economic Committee for Fisheries, 2014, p. 333).

About ten enterprises are dealing with shellfish farming in Slovenia, and only one enterprise is engaged in fish farming. Natural circumstances and conservation requirements in Slovenia do not allow the development of large industrial fish farms. The establishment of an organization of producers would make it easier to obtain knowledge and new technology as
well as reduce market costs (Janeš & Biloslavo, 2013; Janeš & Trnavčević, 2014).

All Slovenian maritime fish and shellfish farms are currently operating at about 50% of capacity. In the future, an increment of production to maximum capacity can be expected followed by the possible stagnation of Slovenian marine aquaculture, while fresh water fish farms have yet to develop their potential because Slovenia has plenty of clean, fresh water resources (Scientific, Technical and Economic Committee for Fisheries, 2014, p. 342).

Methods

In this paper, the interpretivist paradigm was followed, and an inductive narrative approach based on a single case study was applied (Yin, 1994). A paradigmatic case of a specific sustainable Bm has been chosen. In view of Baden-Fuller and Morgan’s (2010) definition, a Bm represents a model for business description and scientific investigation that is to be filled with proper data. According to this definition, we used the Bm canvas as a discussion point for the in-depth workshops and interviews and then populated it with the data provided by the participant during the research workshops. The collected data were later analysed by use of content analysis.

Fonda accepted the invitation and participated in workshops (Bocken et al., 2013), in which a semi-structured in-depth interview with the executive manager was conducted (Bocken et al., 2013; Guo et al., 2013). Interviews were agreed and scheduled with Ms Irena Fonda, co-owner and manager of the Fonda Company, and conducted between January and March 2013. The interviews lasted for two hours (Kvale, 2007), and the following themes were explored:

- sustainable innovation activity;
- the company’s Bm; and
- sustainability drivers of the Bm.

Prior to the interview, the interviewee received some generic questions by e-mail to guide and adequately prepare her for the interview. The interview included questions about the company’s history, sustainability, innovation and key turning points in the organizational lifecycle. In particular, the most innovative practices of the company’s Bm were investigated, as recognized by the company itself. Using the canvas method for Bms, mapping of the company’s vision and strategic knowledge was performed. In order to implement strategic innovation of the Bm, it is necessary to find answers to several questions, but it is always required to start with the question: ‘Why do we exist and what is our goal?’ This is followed by the question: ‘When to redesign the Bm?’ After the need for Bm innovation has been acknowledged questions relating to characteristics of the existing Bm are following. Questions are classified according to the key elements of the Bm (Bagnoli, 2012). In this way, the canvas was used for a description of the Bm with a set of seven key elements: stakeholders, business partners, key resources, business processes, products, customer segments, and the value proposition (Bocken et al., 2013, pp. 483, 489; Elkington, 1997; Janeš, 2014b; White, 2009).

The first interview was dedicated to the visualization of the present situation in the company (i.e. ‘as-is’) and represented a starting point for the second interview, which was aimed at the design of the future desired state (i.e. ‘to-be’) by innovating the existing Bm. Interviews were recorded, with the approval of the interviewee, and then transcribed and analysed (Easterby-Smith, Thorpe, & Lowe, 2007; Janeš & Biloslavo, 2013; Janeš & Trnavčević, 2014). The method of semi-structured interviews was supplemented with the participation of the researchers in the company and by collecting documentation and articles discussing the company’s history and business activities (Angrosino & Mays de Pérez, 2000; Janeš, 2014a; Bocken et al., 2013). The developed Bm canvas was analysed and discussed as a single case study. The latter was sent to the company-interviewee for confirmation and authorization (Janeš, 2014b).

Results and Discussion

Co-Natural Innovation Activity of the Enterprise

The Fonda fish farm is located in the Bay of Piran, which lies in the northern part of the Adriatic Sea. This bay is different from other bays due to it clean waters and strong sea current which is oriented to the north along the east coast of the Adriatic. The contribution
from a mild Mediterranean climate and the marine ecosystem is responsible for the unique climatic conditions. In winter, the temperature of the sea drops between 6 °C to 8 °C, with the result that the fish stop eating in some winter months, and thus they become physically 'cleaned.' For this reason, the growth of the fish is slower. The Bay of Piran has a natural protection from the northern and southern winds because it is flanked by Cape Savudrija and Piran's Punta. To have enough space and continuous flow of fresh water for seabass, the fish farm was built in the middle of the sea instead of in the offshore basins. Fish farm net cages extend to a depth of 11 m and comprise a diameter of 8 m to 12 m. These standard sizes, which are set by the members of the Fonda family, represent improved aquaculture conditions. In each net cage, there are usually twenty thousand fry, which means that they have relatively large space for their development, as it would be possible to have many more juveniles in a cage of this size.

Fish farming in net cages is advantageous over other methods as it is relatively easily managed and requires less space and capital investment. Seabass fry reared under controlled conditions face competition among individuals for food and space leading to uneven growth and causing cannibalism. Optimizing feeding frequency and ration size play a major role in regulating the feed intake, reduction in size heterogeneity and waste outputs of fish. All these facts result in a higher quality of fish and increased production efficiency. The commercial success of aquaculture operation largely depends on the growth and survival of the fish under culture. As feed is the most significant cost involved, performing farming with its maximum conversion into fish growth in a cost-effective approach is emphasized (Biswas, Thirunavukkarasu, Sundaray, & Kailasam, 2010).

These procedures assure sustainable farming and the business’ organic growth. Today’s customer is becoming very sensitive to information about the origin of food, which potentially represents a major competitive advantage.

The company has developed a marketing slogan: ‘Natural, delicious and healthy!’ to best describe Fonda’s farmed fish. Their sustainable innovation activities are based on the holistic marketing approach that includes a set of influential factors. The innovative marketing process is unique in the world and is characterized by the first branded fish from a small farm sold through the Internet. Ms Fonda says: ‘We carry out a lot of things that are really different from what others are doing, like traceability and guarantee, as well as offering our seabass online. Customers place their orders through the internet and receive delivery at home in a very nice, neat package.’

SME literature acknowledges that small companies’ competitive advantage lies in the development of innovative products or processes, which is reliant on accurate market and customer information. Therefore, SMEs cannot be competitive using economies of scale for obvious reasons. Creative, alternative, and instinctive marketing practices can flourish under financial resource constraints (Low & MacMillan, 1988; O’Dwyer et al., 2009).

One of the important steps of their innovative approach was that they gave the fish a geographical origin, and raised a brand for Fonda’s Piran seabass (Lagorio, 2012, p. 37; Janeš, 2014b; Trebar et al., 2013). Researchers argue that consumer-perceived brand innovativeness might develop a sustainable competitive advantage for a company. Companies can use different elements or their combination (e.g. look, colour, feel, taste, logo, design, and brand name properties) to signal brand innovativeness (Danneels & Kleinschmidt, 2001; Shams, Alpert, & Brown, 2015, pp. 1589–1590, 2591; Verganti, 2008). Fonda, as a small producer that cannot compete on price promotion (Monfort, 2007), developed a brand for a seabass, which is grown in a sustainable manner with the highest quality standards, marketed and sold via exclusive distribution channels. All this is strongly supported by effective storytelling that includes the owner’s family history and that of the Bay of Piran’s. This approach is their true source of sustainable innovations; no other company in the industry employs a similar approach.

Certification schemes that help the consumers in the sustainability of their choices are useful in some countries, where there is demand for eco-labelled products (Koos, 2011; Thøgersen et al., 2010) but in others, e.g. Portugal, it might be more effective to com-
plement it by promoting food traditions that are still good alternatives for the marine resources (Almeida, Altintzoglou, Cabral, & Vaz, 2015).

Dobson and Regier (2007) discuss the sustainability of fisheries through the adoption of a broader ethical approach, identified the role of science and risk assessment, the public trust doctrine and other factors, and recommend further collaboration of all stakeholders so that their joint efforts result in ‘sustainable and equitably shared fisheries.’

Hayes, Lence, and Stoppa (2004) emphasize that farmer-owned brands could be profitable for farmers and discuss the importance of restricting the supply of any successful brand. Aurier, Fort, and Sirieix (2005) investigate the food products’ local origin (‘terroir’) as a differentiation factor and company’s added value and demonstrate that the terroir indication could influence the perceived quality and benefit from the recognized regional brand’s imaginary.

Fonda’s next innovative step was the establishment of an online store, which remains a unique innovation. Their products can be delivered on the Slovenian coast all the way to Ljubljana and Carinthia (Austria) and to the west of Trieste (Italy) and its surroundings (Lagorio, 2012, p. 37).

Fonda is unique in the world in terms of its farming and marketing approach, and in particular with its distribution method. They have customers who rarely buy fish and those who have a regular subscription to do so. The latter also do not need a particular booking for each order, because they receive fish at their homes or restaurants regularly. This ongoing form of ordering was suggested by a customer. This kind of business model innovation involves innovating in the company’s strategic level, e.g. eliminating intermediaries and going directly to customers (Pels & Kidd, 2015, p. 204; Altintzoglou & Nøstvold, 2014).

However, instead of focusing on the traditional 4P marketing paradigm, or the 7PS adopted by service marketing, entrepreneurs stress the importance of promotion, in particular through word-of-mouth. Entrepreneurs have identified one of the unique selling points of their business as the nature of their personal contact with customer, and their focus on the instinctive understanding that networking with outside individuals, associations and companies enables them to be successful; therefore, entrepreneurs use networking as an intrinsic marketing tool (Stokes, 2000; O’Dwyer et al., 2009, pp. 47–48).

The recognition of the Piran seabass brand was largely supported by media. As Ms Fonda says: ‘When everybody claimed that what we were doing would not work, the first reporter came to visit us. He said that he would like to write our “story.” What kind of story, I asked in amazement? Our brand is credible because our story is credible!’

Currently, at least 300 press stores have been published about the company in Slovenian and foreign media. On the company’s website, a tab labelled ‘Press Room’ is available, with a large amount of published material describing the company activities. ‘Such a volume of promotion would also be too expensive for our company if we had to finance it,’ says Ms Fonda proudly.

In doing so, she draws attention to an article in one of the most internationally renowned journals in the field of aquaculture, Il Pesce (The Fish), which was released in October 2012. This article about the company means that they were noticed in the field of aquaculture because of their excellence. Every article adds value to the brand; people who came to visit the company have gained the information from the media.

From these visits, a new benefit was developed for the company, since the initial interest of biologists in visiting the company spread into attendance from various schools, faculties, and pensioner clubs, including people from countries around the world. The visitors were interested in what the company does, how it does it, and how they achieved such high quality. Many people still come from Austria, Italy, and the United Kingdom to visit the company and buy fish. There are also visitors from Australia, Estonia, and Asian countries. Based on the initial enthusiasm for company visits and visitors’ proposal, the idea of a new service was developed: guided tourist sightseeing of the fish farm. It turns out that the sightseeing also significantly contributes to the added value of the brand and sales performance (Witell & Löfgren, 2013).

As a result of the economic recession in Slovenia, investments dropped as did investments in underwa-
ter construction work, so this kind of additional service (sightseeing) is very welcome. Moreover, demand for visits is still increasing.

In this way, the search for financial resources from EU funds for fisheries through the Ministry of Agriculture are being diverted to projects which are designed for promotion and tourism. The company is applying to project calls via the Coastal Action Group-Fisherman. These resources have enabled projects, which the company called ‘green tours,’ and are made with kayaks and a Greenline-hybrid vessel powered by solar energy. This vessel was manufactured by the Sea-way Company and selected as the Vessel of the Year in 2012.

Cooperation with other Slovenian enterprises is also vital. High-quality products produced by local Slovenian companies at affordable prices are often indirectly promoted by Fonda based on its own initiative. For example, in the suggested recipe for Fonda’s Piran seabass, Piran salt, which is produced in the Sečovlje salt pans, is being promoted (Faganel & Trnavčević, 2012). There are different local products that are natural complements to the consumption of the fish, such as Istrian wine and olive oil. With the mutual participation of entrepreneurs, the promotion of regional products sales is being reinforced.

An important promotional milestone happened when the first restaurant, from Preodslje near Kranj in Gorenjska, introduced Fonda’s Piran seabass in their menu. It was the first time that a fish brand appeared on a menu. Ten days later, the restaurant Hiša Franko did the same. Both restaurants are considered to be among the best in Slovenia.

These events had a high value for the company: ‘It was the first time that the name of the fish brand was written on the restaurant’s menu. Surely this is a great confirmation! And I willingly say that Christopher was the first and then followed by Hiša Franko. I see them as partners, friends, and not just as customers.’

Another important aspect besides product and BM development for new companies is customer development. As Blank (2006) put it, entering new markets is a risky process and there is no guarantee that customers will accept new products (Fonda, 2013a, 2013b), so he proposed a four-step approach to customer development with iterations: customer discovery, customer validation, customer creation, learning, and only at the end comes the stage of company building.

Peterson and Fronc (2007) researched the market-driven factors affecting the sustainability of the fish and seafood supply chain and emphasize the importance of connections and collaboration with restaurant chefs, their menu decisions and suppliers, in order to promote the product and increase the awareness of potential new customers (they call it ‘fishing for consumers’).

Chefs have acted in such a way because they believe in Fonda’s product and they also give a positive sign to the general opinion, which nevertheless holds that a wild caught fish is somehow better than the farmed one (Ellingsen et al., 2015; Fonda, 2013a; Kalantzis et al., 2013). Their decision is undoubtedly a great achievement for the Fonda Company while simultaneously contributing to the education of consumers.

Many chefs were already impressed by the quality of the Fonda Piran sea bass, so farmed fish can be even better than the wild ones. Because wild fish are not necessarily fresh, they can have a ‘muddy’ taste, or they even can be sick. Fonda was also invited to the Slowfish Congress in Genoa, Italy, where they were presented as an example of good practice.

The Fonda.si case study is an example of organizational innovation in which new BMs can represent a form of innovation (Teece, 2010, p. 176). To copy the new achieved advantages, a competitor would have to incur the trouble and expense of copying all elements; manual feeding and maintenance, tagged fish (badge-date of harvest, RFID, QR), zero kilometre food, population education and awareness, farming time and finding suitable locations-franchising, and co-branding and would also have to adopt and manage effective routines for the system handling (Chesbrough, 2007; Kindström & Kowalkowski, 2014; Philipson, 2016, p. 141).

Analysis of the Enterprise’s Business Model

Through the analysis of the ‘as-is’ BM of the Fonda company, two strategic themes were identified: brand Fonda and sustainable aquaculture processes which embrace all the BM’s key elements.
The first strategic theme is the company brand Fonda, which represents a very positive attitude towards sustainable aquaculture and care for the environment and the competitive advantage of the company. Sustainable processes that result in ‘the best fish in the world’ is a strategic directive, which is supported by an effective and successful business with established and new business partners and modern aquaculture co-natural sustainable technology.

This method of fish farming requires not only technical competencies but also a relatively large input of manual work on a farm. Naturally farmed fish and seafood with Fonda’s marketing approach opened regional and international distribution channels for the Fonda trademark.

Taylor and Walley (2004) investigated the motives and influences of green entrepreneurs and classified an exploratory typology of ideal types: ‘innovative opportunists, visionary champions, ethical mavericks and accidental environtrepreneurs.’ Fonda has the characteristics of the first three categories.

The second identified strategic theme is co-natural aquaculture processes. In-depth expertise has brought together influential factors of the fish farming process, which enables superior seafood quality. Geographical origin is recognized through the brand Fonda, which maintains the highest European quality standards. The latter also directs the expectations of customers in enjoying healthy seafood (Honkanen & Olsen, 2009; Mai et al., 2010; Trebar et al., 2013).

The developed aquaculture competences of the company certainly have an impact on the growing demand for high-quality, sustainable food, which is an opportunity to achieve higher sales volumes and prices. Demand already exceeds production capacity by at least three times. In addition to the inventive technology of fish and seafood cultivation, an opportunity exists for the company in combining complementary products such as creating new culinary-wine tourism experiences (Witell & Löfgren, 2013) and the enhancement of customer’s awareness. Fonda takes advantage of the Slovenian agricultural sector, Mediterranean climate, and the geographical origin of the goods.

The Fondas are aware of their competitive strengths: a long tradition of aquaculture and the regional integration of the company. An important role in the operations of the company advocates the promotion of the Slovenian coastal-Istrian area. Fonda provides an important contribution to the recognition of Slovenian food companies and Slovenia as a touristic destination. With the company’s growth (e.g. developing complementary products for different segments of customers or expanding to other countries), keeping the business cohesive and consistent, and motivating managers becomes more difficult. The company should focus first on understanding its BM, how it makes income and how it provides value to customers, and then on changing its BM through further innovation to set it on a new business direction (Abraham, 2013).

The third strategic theme that was identified by analysis of Fonda’s desired BM ‘to-be’ is co-branding. It is well known that the brand Fonda is a relatively fast-growing and recognizable brand, but the success also brings demands for the consolidation and maintenance of acquired market positions. In addition, the company is strategically oriented (embedded) in the local region, which does represent a certain physical limitation.

Österwalder and Pigneur (2010) suggest that BMS must change over time as manufacturing firms are exposed to market turbulence (Teece, 2010; Witell & Löfgren, 2013, p. 522).

Established and recognized brands can be expanded to other areas of interest, but this requires a certain degree of caution (Bocken et al., 2013, pp. 488–489). When considering the use of the ‘master brand,’ it is a good idea to consider whether this is not detrimental to the core business. Alternatives also are recommended, for example; the use of co-branding with renowned partners of the company and the joint appearance, for the benefit of all the brands (e.g. Pipistrel, salt, rice, wine, vinegar and olive oil producers, new offer of caviar, etc.). The design of a BM usually requires the focal firm to build a boundary-spanning business network with its external stakeholders in order to effectively exploit opportunities and capture value (Shafer, Smith, & Linder, 2005; Guo et al., 2013). Such cooperation of enterprises is at least partially
used, and this is evident from the website of the company in the tab’s ‘Fonda store.’ In this regard, joint appearances, promotions, and common distribution channels of complementary high-quality products are certainly worthwhile as is close cooperation with the tourism sector (Nemec Rudž, Sedmak, Vodeb, & Bojnec, 2014). Therefore, the network has become a key component for BM (Chesbrough, 2007; Shafer et al., 2005; Guo et al., 2013). With the positioning of Slovenia as a tourist destination of excellence, all actors involved from high-quality food producers to tourist service providers will gain much, and Fonda is on the leading edge of the organizations pursuing this idea.

Managers can use BMs and their innovation perspectives to visualize how and when changes might occur, which should increase internal transparency, understanding, and awareness of service opportunities and necessary changes. It is important to understand any potential dependencies among elements; a change in one likely affects the others. Successful change in one element depends on corresponding changes in and the realignment of other elements.

Therefore, the initial step in BM innovation is to determine the current situation (as-is) and identify the target position (to-be), which presents the ‘big picture’ and supports a discussion of what the BM should look like once the target position is reached. These insights give managers a better understanding of which major changes need to take place, in which elements, and in what sequence (Kindström & Kowalkowski, 2014; Guo et al., 2013).

### Sustainability Drivers of the Business Model

The aquaculture developed by the Fonda family does not bring quick benefits because ‘the duration of the turnover’ is relatively long, which represents a substantial obstacle in obtaining growth financing. As Ms. Fonda states: ‘Here is the problem of the banks: when you say that the turnover of the capital is four years, you get only sideways looks. However, on average, with the opening of the first franchise in the Croatian sea, the turnover is shortened.’

Therefore, it would be worth carrying out the activities to look for franchisees in geographic destinations where the fish can be relatively quickly shifted into a period of maturity, and thus suitability for sale. It is appropriate to examine the factors affecting the shortening of the fish farming time and finding suitable, not very distant locations which can be relatively easily to manage. One example of this is a fish farm in Croatian Osor (Fonda, 2013a, 2013b; Šubic, 2012). According to Pels & Kidd (2015, p. 203–204) this is a revenue model innovation that involves innovating at the company’s economic level, e.g. innovating the price strategy and company model innovation, which involves innovating at the company’s operational level, e.g. specializing on a specific part of the value chain and outsourcing/franchising the rest.

Fonda cannot compete with large fish farms in the global economies of scale. However, it can compete with boutique quality, and the sustainable co-natural production of farmed fish and seafood (O’Dwyer et al., 2009). The latter may be accompanied by additional services. Irena Fonda states: ‘We sell fish as wine! One normal, average fish farm has somewhere around 500 tonnes of fish annually. Break-even figuratively; positive zero is somewhere at 240 tonnes per year and is increasing. Large farms could produce up to 10,000 tonnes per year. So, we are really a boutique.’

This should be developed and diversified as brand positioning for the various, identified target segments of customers. Based on the key differentiating competitive advantages and specific needs and desires, each target segment in which it pays to invest and continue to develop special offers is chosen. Positioning (i.e. the place a product occupies in consumers’ minds relative to competing products) is performed by means of product policy, price policy, distribution and unique marketing communications, with added services at the same time, of course. Because the needs of wholesalers, retailers, caterers and groups of individual customers differ, it is necessary to create a unique marketing mix that will focus specifically on each of the target groups. In addition, because of the branded product, grown sustainably, a strategy for consumer development has to be planned and implemented. BM should be able to link two dimensions of company activity, value creation, and value capture. An established business is always tweaking its BM to become more competitive, but when there is a need to radically change...
Critical aspects for the company are continued networking development and the further development of complementary activities, i.e. guided visits on the fish farm for the education of young people. From the beginning, free guided visits were gradually transformed into guided visits for a fee according to segmented groups of visitors (Witell & Löfgren, 2013). The company is developing the tourism brand Ribji vrt Fonda (Fish Garden Fonda), offering visits to the fish-farm by appointment. To visitors, who mainly come from Asia and EU countries, the Fonda Piran seabass farming is also presented a culinary experience. There are tour groups visiting almost every day. In 2014, Fonda won a Srebrnega sejalca (Silver sower) as one of the most innovative projects in Slovenian tourism. When they were thinking about the ticket price (for the tour and tasting), they decided that it should cost as much as a bag of fish feed costs: 36 euros (Šuligoj, 2016).

Nevertheless, the resources of the company to offer this product in the tourism market on a larger scale are limited with concession and company’s strategic directions; therefore, this product is not available to mass tourism (Janes, 2014b; Mihalić, Sedmak, Planinc, & Bogataj 2013, p. 43).

The company has to expand the network of contacts with principals and teachers, especially in the field of geography, household, and nutritional sciences, as well as with students of all levels (Dravinec, 2015). The company’s website might be extended to the field of education, for example, an ‘Education tab,’ with a special portal for distance learning, video clips of events at the fish farm, all of which could give even more credibility to the sustainable operation of the company (Pine & Gilmore, 2016). Education activity is based on the process of guiding and educating customers through transformations such as healthy lifestyle changes (Pine & Gilmore, 2016).

Another challenge is the shortage of the intensive joint appearance of entrepreneurs, coastal-Istrian caterers, and hoteliers. A small company cannot afford advertising space in tourist catalogues and at major trade fairs. Recently, hoteliers have changed their attitudes to Slovenian entrepreneurs and started to place them within their offered services. However, according to Ms Fonda, much more can be done; in particular, opportunities for connecting innovative entrepreneurs with quality products that complement their offered services. The conclusions based on the interview-workshops indicated that interest in the development of activities, i.e. fish farming, culinary, tourism and winery joint promotions and complementary cooperation already exists. The need for a broadly integrated approach increases along the spectrum of strategic innovation for sustainability (Szekely & Strebel, 2013, p. 475).

To promote the food sector at a regional level while addressing prevailing trends towards global markets will require the successful implementation of regional associations, networks and supply chains in which SMES-producers of farmed seabass and seabream will be associated (Fonda, 2013a; Wagner & Young, 2009).

Continued partnerships with media of all kinds are certainly one of the activities that support the promotion, recognition, and successful product sales. Public relations, publicity, sponsorship, donations, open days, blogs, newsletters, etc. are areas that offer many opportunities.

If the Fonda family should decide to increase the volume of business, this will certainly lead to organizational changes, i.e. division of tasks and responsibilities with respect to markets, key customer groups and continuous product development in the form of the key account managers and business processes that will share tasks and responsibilities based on preferences, attitudes and experiences.

Managerial skills can help the Fonda company to integrate resources within the value network more effectively, create processes to leverage those bundled resources, and bond the company with its stakeholders in novel ways (Guo et al., 2013, p. 452).

With the increased volume of business, the company will also reflect the need to establish a system for measuring the carbon footprint and the introduction
of ‘green’ technologies of the next generation, i.e. green design (Szekely & Strebel, 2013). Good environmental performance (e.g. manual labour) may directly affect financial performance (e.g. cost reductions with shortening of the fish farming time) or indirectly (e.g. through an improved image) (Bocken et al., 2013, p. 861). Sustainability is an area of increasing interest for the industry and its stakeholders, and companies now aspire to address sustainability issues, such as carbon emissions, at strategic and operational levels (Bocken et al., 2013). The ‘to-be’ developed BM fulfils Baden-Fuller and Haefliger’s (2013, p. 419) innovation criteria and to some degree Porter’s (1996) demand for strategy fit.

Fonda applies a holistic approach in which issues of social and financial (e.g. enhancement of customer’s awareness, networking, franchises, products of high cuisine) sustainability, health, and education (e.g. guided aquaculture tours and educational activity) underpin the fundamental notion of environmental sustainability (e.g. manual labour, zero kilometre food, Greenline-hybrid vessel). Business partners, key resources, business processes, products and customer segments together support the sustainable BM of Fonda.

**Conclusion**

BM innovation seems to be a key to delivering future sustainability. The BM canvas assists companies in embedding sustainability into the core of their activities and in improving their understanding of the value proposition in relation to customers and society at large. Sustainability is now a key driver of innovation, and it can be recognized from some good practices that, at each stage, from ensuring compliance through to developing a completely new BM, promote numerous possibilities for innovation. Taking a broad perspective, sustainable innovation can be considered as the development of something new that simultaneously improves performance in all three dimensions of sustainable development (Elkington, 1997; Bocken et al., 2013).

Following the example of Fonda, managers can use the BM canvas to visualize how and when changes in the main business logic occur and what kind of impact they might have. This should increase internal transparency, understanding, and the awareness of future market opportunities. It also helps in understanding the potential dependencies among different elements of a BM and how they need to be realigned to each other.

The initial step in the process of BM innovation is to determine the current situation (as-is) and identify the target position (to-be), which presents the ‘big picture’ and supports a discussion of what the BM should look like or what the ‘ideal’ BM should be, based on the envisioned future scenario.

In this perspective, the case of the company Fonda can be used as an ‘ideal’ model for the development of a sustainable oriented BM within the aquaculture industry. The ideal model is a disruptive model that changes the way the company creates, transfers and captures value. It is different compared to the way everybody else operates; it can beat almost any technological innovation and overcomes differences in available financial resources.

Fonda also contributes to a triple bottom line of economic, environmental and social benefits. One way of overcoming the last economic crisis is to readjust to a green growth economy, of which Fonda is one of the best practical examples. Possibilities have been discussed to further develop the business, but not exhausted, as there are many other ways to upgrade their products and services. They could also develop recreational fishing around the fish farm, as there are many wild fish feeding under the cages. The Fonda family has an idea to build an artificial reef under the cages, which would help to disintegrate the remains of fish food and waste; it would become highly populated as it would attract different forms of underwater life and it would represent an attraction for divers. Now, when the new ownership has consolidated the financial situation of the company, is time to open the doors to further develop the business and support even more innovative ideas.

Our case study might well also serve for the identification of further research. We would like to recommend some of the areas for the future research, building on the present article as, for example, analysing viable strategies for merging sustainability and fish
farming, in order to develop the growth of the business and help nature and society. It would be possible to study and promote newly identified sustainable business models to some other sectors, for example, hydroponics and other food initiatives and integrating them, as population growth is imminent and the demand for food will increase. Multiple case study research might indicate various possibilities for generalization; they might be beneficial for cross-sectional benchmarking or theory building.

References


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