UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

THE CHALLENGES AND OPPORTUNITIES FOR INNOVATION IN SLOVENIAN FAMILY FIRMS

Ljubljana, March 2024

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EBIT - earnings before interest and taxes
EBITDA - earnings before interest, tax, depreciation, and amortization
GDP - gross domestic product
HR - human resource
MNE - multinational enterprise

SME - small and medium-sized enterprise
R&D - research and development
ROA - return on assets

1 INTRODUCTION

Family-owned firms constitute the backbone of global economy as they represent the most prevalent organizational form worldwide. In Slovenia, it is estimated that up to 80 percent of all companies are family owned (Letonja et al., 2021). However, it is important to note that the above percentages largely depend on the definition of a family firm used. This master's thesis considers family firms as any business where the family has control over the strategic objectives because it employs more than one member with respected managerial capabilities (Astrachan & Shanker, 2003). Family firms exhibit specific characteristics such as family control, risk aversion of the owners, long-term orientation, etc., that distinguish them from their non-family counterparts (Andersson et al., 2018).

Since national economies are largely dominated by family-owned firms, they are extremely important for global growth and development. In today's digital economy, marked by rapid technological advancement and fierce competition, innovation has become the subject of extreme interest for individuals, governments, corporations, and after all family firms. Innovation may take numerous forms, all characterized by a state of novelty, which does not only concern research and development (R&D), but also technological innovation. In line with such a view, the thesis considers innovation as all the activities enabling the company to come up with, develop, produce, and introduce new products, services, processes, and/or business models that have economic or social value (Kabir, 2019). There are many different types of innovation including product or service innovation, process innovation, business model innovation, platform innovation, component innovation, design innovation, and more (Chandy & Prabhu, 2010). In addition to different types of innovation, innovation differs also based on the level of innovation, i.e., incremental or radical, and the magnitude, i.e., exploitative or explorative (Heider et al., 2022).

Where innovation is concerned, family firms face specific challenges. Some experts say that family businesses are less innovative due to their nepotism, conservativism, risk aversion, reluctance to share control with non-family members, hesitation to seek external funding, divergent family interests within the firm, and intergenerational conflicts (De Massis et al., 2022). In fact, only one in three family firms survives the transition from one to the next generation (Deloitte, 2016). While family-owned companies might be thought of as traditional and stagnant, research shows that they are more efficient when it comes to the innovation process. Namely, for every dollar spent on R&D, family firms produce a higher innovation output, measured by the number of patents, number of new products, and/or revenues generated with new products (Kammerlander & van Essen, 2017).

Previous research yields inconclusive results on whether family firms are innovative or not. In former socialist countries, including Slovenia, research on family firms remains in its infancy. The root cause for such scarcity of family firm studies lies in the fact that private companies were outlawed under the socialist system. In Slovenia, very little is known about how family firms are managing challenges, such as challenges involving innovation.

The thesis answers the call of Werner et al. (2018) for more detail research on the black box of innovation in family firms. The purpose of the research has been to explore the key challenges and opportunities for innovation in Slovenian family firms. The research results can be used for contextualization and understanding of expert opinions and perspectives rather than generalization across the entire population of Slovenian family firms.

More specifically, the thesis includes four research goals:

- to explore what drives and hinders innovation processes in Slovenian family firms,
- to establish what is the role of the Slovenian government in connection to family firm innovation,
- to describe the impacts of innovation on the business performance of Slovenian family firms and determine which business functions are most affected by innovation,
- to understand the influence of the family on innovation in Slovenian family firms by considering corporate strategy and family-specific resources such as unique human capital.

In line with these goals, the following research questions were developed: (i) Which are the key drivers accelerating innovation in Slovenian family firms? (ii) What are the main obstacles to a faster innovation process in Slovenian family firms? (iii) What is the role of the state in family firm innovation in Slovenia? (iv) How does innovation impact business performance in Slovenian family firms? (v) How does the family influence innovation in the company?

To answer the research questions, I conducted nine in-depth interviews with Slovenian family firm representatives from various industries. The interviews were conducted in a semi-structured manner with the aim to obtain qualitative data to better understand the complexity of the topic. Interviews were transcribed and analyzed using thematic analysis.

The thesis is structured in the following way: The first chapter defines a family-owned business by considering family-specific characteristics and describes the situation in Slovenia. The second chapter focuses on innovation and connects it to family firms. The chapter outlines the definition of innovation, describes common types of innovation and their impact on family firm performance, and presents drivers and obstacles to innovation in family firms. To identify the drivers and inhibitors of innovation, the chapter leans on key family firm characteristics. In a separate part, the chapter explores the policy perspective to determine whether the state acts as a driver or inhibitor of innovation in family firms. The chapter ends by establishing why family firm innovation is crucial not only for the firm but also for the national economy.

The third chapter represents the methodology of the research. Finally, the fourth chapter presents and interprets research findings. Research findings are grouped into seven themes: innovation in the industry and company, drivers of innovation, obstacles for innovation, perception of the role of the state, impact on business performance and strategy, human resource (HR) challenges, and family influence. The fifth chapter gives important implications and recommendations for family firm owners as well as for policymakers to boost innovation activity. Last part of the thesis is the conclusion that is derived from literature overview and in-depth interviews. In this part, the thesis offers concluding remarks on the challenges and opportunities for innovation in Slovenian family firms.

2 DEFINITION AND CHARACTERISTICS OF FAMILY-OWNED BUSINESSES

Family-owned companies are commonly associated with small size, local focus, and familiar challenges such as arguments over succession. Although many family firms fit that description, it does not reflect the powerful role family firms play in the global economy. This chapter starts by outlining the definition of family firms, then provides a detailed description of key family firm characteristics that distinguish family firms from their non-family counterparts. The chapter continues by splitting main family firm characteristics into strengths and weaknesses. Lastly, the chapter lists challenges family firms commonly face and describes the situation in Slovenia.

2.1 Definition of a family-owned business

Defining the phenomenon under study is one of the most important challenges. Yet, scholars and institutions give no universal definition in the case of a family firm. What all definitions have in common is the fact that the family's influence on the business makes a family-owned firm unique and sets it apart from its non-family counterparts. Such rationale is neither based on the size of the enterprise, nor the matter of whether a company is privately held. Instead, a family firm is classified as such due to the ways through which the family controls the firm and the degree to which the family controls the firm. The concept of a family firm is centered around the influence of a dominant coalition – a family that has specific goals, abilities, preferences, and biases (Zellweger, 2017).

One traditional line of thinking defines a family as a social unit whose operations are fundamentally different from the way the market operates. In a family firm, the law of the economy is suspended since the family builds on trust and giving (Bourdieu, 1996). However, such a view has been largely criticized since the definition of a family, and consequently, a family-owned firm differs vastly across cultures. In China, for instance, the one-child policy substantially limits family sizes. Yet, China is a collectivist society, where family firms play an important role. With the increased number of divorces, also social norms have changed over time. For example, in Europe and the US, one does not need to be married to be considered a family (Zellweger, 2017).

Adapted from Zellweger (2017, p. 6), four dimensions help define a family firm: ownership, management, transgenerational outlook, and later-generation firms. In line with such a view, Table 1 summarizes the cutoff points that differentiate a family firm from a non-family one.

Table 1: Family-firm definition

Dimension	**Cutoff criterion**	**Rationale**
Ownership	Small firms: < 50% of the voting rights in family hands Large and public firms: < 20% of the voting rights in family hands	Voting rights give individuals power in strategic decision-making
Management	Small firms: family involved in top management Large and public firms: not required	Involvement in top management gives an individual the power to instill values in the firm, and thus, influence decision-making
Transgenerational outlook	Family controls a firm with the intent of passing it on to the next generation	The difference between a family- and non-family firm is the desire for transgenerational control
Later-generation control	First-generation firms: founder-controlled firms Later-generation firms: family firms	What makes a family is a control that lasts generations.

Source: Zellweger (2017).

Another similar definition of a family firm was derived from Handler (1989, p. 260), who lists the following dimensions to help identify family firms: the degree of ownership and/or management, the level of family involvement in the business, the transgenerational succession, and the use of more criteria. Similarly, Neubauer and Lank (1998, pp. 5-6) extended the definition of the family firm and based it on the following criteria: share of ownership in the hands of the family, employment of family members in the family firm, non-family members' involvement in top management, expectations about including new family members in the family business, number of generations involved in the family business, number of family members involved in top management and/or ownership, number of employees, and awareness of non-family members regarding work in the family firm.

According to the European Commission (n.d.), the definition of a family-owned firm includes the following: the majority of decision-making rights are in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child, or children's direct heirs; the majority of decision-making rights are indirect or direct; at least one representative of the family or kin is formally involved in the governance of the firm; if the person who established or acquired the firm (share capital) or their families or descendants possess 25 percent of the decision-making rights mandated by their share capital.

Moreover, the literature often simplifies the definition of the family firm by overlooking the heterogeneity within the group of family firms. But family firms exist in all shapes and sizes and are spread across various industries. They do not share a common mode of governance structure. While some families control only one firm, others can control large conglomerates (Zellweger, 2017). Since the literature presents no unanimous definition of a family-owned company, the thesis will consider family firms as any business where the family has control over the strategic objectives because it employs more than one member with respected managerial capabilities (Astrachan & Shanker, 2003).

2.2 Key characteristics of a family-owned business

Definitions of a family-owned business might not reach a consensus, yet some common characteristics across different family firms distinguish them from their non-family counterparts. To understand family firms and how they operate, one must first understand what makes them unique. Andersson et al. (2018) argue that there are six characteristics that can help identify family firms:

i. Financial composition: The financial structure of a family firm is significantly impacted by the need of a family to maintain control and influence over the firm. Namely, the desire of a family to secure the long-term survival of the business greatly limits its use of debt financing, which leads to family-owned companies having lower levels of debt compared to non-family businesses (Hiebl, 2013; Gonzalez et al., 2013; Molly et al., 2019). Family firms generally avoid having higher debt levels because issuing debt reduces the need to raise equity, and less equity impairs the power of the family (Villalonga et al., 2015). In fact, the generational stage negatively affects the debt level as next-generation owners would rather forego growth than put losing family control at risk. However, this is not always the case. Heterogeneity within family firms in terms of generational stage and board of directors' involvement leads to contrasting debt levels. While the generational stage is negatively linked to debt level, family involvement in the board of directors positively influences the company's indebtedness (Comino-Jurado et al., 2021). Medium and large family-owned enterprises in metropolitan areas may be more levered than their non-family counterparts. Yet, this finding is not statistically significant for small family firms or family firms located outside metropolitan areas (Gottardo & Moisello, 2014; Ramalho et al., 2018).

ii. Risk preference: Since the family views the firm as an asset to be passed on to future generations, family companies tend to be more risk-averse compared to non-family firms (Alessandri et al., 2018; Hiebl, 2013). Such a notion comes from the fact that family-owned companies invest less in risky R&D projects as they aim not to endanger the firm survival, and consequently, have lower levels of debt compared to non-family businesses (Hiebl, 2013). Bankruptcy would hurt a business-owning family more than a non-family stakeholder because in such a scenario family would lose both financial wealth and non-economic endowments tied to the firm (Kempers et al., 2019). However, family-owned firms may become more risk-taking in case future prosperity and/or family control is under threat (Alessandri et al., 2018). Some family firms may be more risk-taking than others as they are more entrepreneurial as well as have higher surrounding environment support when dealing with risks (Pukall & Calabro, 2014).

iii. Firm age: A family firm's average age is higher than a non-family enterprise (Andersson et al., 2018). In fact, 75 percent of family businesses are over 50 years old and one third already celebrated 100 years of existence (Robertsson et al., 2021). The reason behind the greater longevity of family firms is their long-term orientation, emotional attachment, strong family ties, and lower performance threshold (Akhter et al., 2016; Chirico et al., 2020; Symeonidou et al., 2022).

iv. Firm size: While family firms might outlive their non-family counterparts, they tend to exhibit lower growth during their existence. An average family firm size is significantly smaller in terms of sales, total assets, and number of employees compared to a non-family firm (Andersson et al., 2018; Backman & Palmberg, 2015; Dow & McGuire, 2016). One of the main reasons for the constrained size of the family business lies in the risk aversion of the family owners, who tend to choose less volatile growth paths, take less risky projects, and are reluctant to accept external finance (Bach, 2010). Yet, this does not imply that a company needs to be small to be family owned. By contrast, family companies can range from small to large. Walmart, for instance, is a family-owned company that generated $572,754,000 in revenue in 2021 (Yahoo Finance, 2022).

v. Internationalization: Internationalization efforts, measured by whether a firm is part of a multinational enterprise (MNE) and export propensity, are commonly lower in family firms compared to non-family firms (Andersson et al., 2018; Donckels & Fröhlich, 1991; Gallo et al., 2004; Pukall & Calabro, 2014). In fact, the family has a curvilinear influence on the level of internationalization, i.e., a very low or high degree of family ownership results in less internationalization efforts compared to mixed levels of ownership between family and non-family members. The involvement of the family in the board of directors mostly has a negative impact on the internationalization of the business (Pukall & Calabro, 2014). Family-owned businesses export significantly less and are not as involved in MNEs (Andersson et al., 2018). They also monitor international markets less frequently and if they engage in internationalization, they chose such foreign market entry mode that does not harm their independence. Namely, the main reason for a family business's slower internationalization is often rooted in the fear of a loss of socioemotional wealth. Unless the family firm internationalizes in the first two generations of ownership, the odds are it will never (Pukall & Calabro, 2014). However, newer generations of owners are more likely to engage in the internationalization of a family business (Fernández & Nieto, 2005; Okoroafo & Perryy, 2010).

vi. Financial performance: Financial performance, measured by return on assets (ROA) and earnings before interest, tax, depreciation, and amortization (EBITDA), is higher in family-owned firms as they have higher average and median ROA and EBITDA (Andersson et al., 2018). Such outperformance of family firms occurs predominantly in large and listed companies. Furthermore, family firms are more likely to outperform non-family firms in countries that exhibit a greater level of individualism, masculinity, long-term orientation, and lower power distance according to Hofstede's cultural dimensions. Yet, such findings may be attributed to accounting rather than performance measures (Hansen & Block, 2020). Andersson et al. (2018), for instance, found that financial performance is lower for family firms if measured in terms of earnings before interest and taxes (EBIT).

The characteristics mentioned above do not provide an absolute criterion by which one could differentiate family and non-family firms because a great deal of heterogeneity exists between various family firms. Benson et al. (1990, p. 17) argue that the two types of firms are different at their core. Key characteristics of a family firm include emotions, strong family ties, equality between family members, and family membership till death. By contrast, non-family firms are not founded on emotions, the core of the business is task completion, rewards are based on results not family ties, and employees, who don't perform well are punished. To better understand the key characteristics of family firms, the following two subchapters will draw a line between positive and negative characteristics based on their impact on a family-owned business.

2.3 Key strengths of a family firm

Family firms, like families in general, tend to function well even in challenging times. In fact, family firms perform better than any other business model in the long term (Kearney, 2014). The key factors contributing to their ongoing success and continuity are listed below. The following section explains how key family firm strengths present opportunities for innovation.

i. Long-term orientation: A strong long-term orientation is one of the main competitive advantages of family-owned businesses compared to non-family businesses, which is consistent with family firms' desire for transgenerational value transfer. Long-term orientation positively affects the innovativeness and proactiveness of the firm, whereas its effect on riskiness is negative (Kalali, 2022). Innovation in turn promotes continuity and strengthens the likelihood of a family firm's survival through generations (Cesaroni et al., 2021). Moreover, long-term vision moderates the relationship between family ownership and the adoption of sustainability practices (Memili et al., 2017).

ii. Strong commitment: Family commitment involves the family's willingness to influence goals and strategy as well as shared values, pride, loyalty, support, care, and leverage these unique resources to be entrepreneurial. Consequently, family commitment impacts the family firms' innovativeness in a curvilinear way. Namely, the influence of innovativeness on the family firm’s performance is the strongest in case the family commitment is low or high (Sherlock et al., 2022; Hatak et al., 2016). When family owners actively participate in the innovation process, for instance, they can support innovation by drawing on their personal network, allocating the budget for long-term innovative projects, and sharing industry information with loyal employees, which leads to higher performance of the entire company (Kammerlander & van Essen, 2017). In addition, a family firm culture of commitment is closely linked to strategic flexibility and stability (Zahra et al., 2008).

iii. Organization flexibility: Flexibility encompasses the willingness of a company to change. Thus, the ability to pursue opportunities while avoiding threats, i.e., flexibility, is another key factor contributing to the competitive advantage of a family firm. Family firms are deemed flexible in the way they organize as they have a more informal culture. For example, individuals working in family firms are more likely to engage in flexible work arrangements than those in regular employment (Stamm et al., 2022). They are also more likely to take on tasks outside their formal remit as they do not have clearly defined responsibilities. Such organizational flexibility facilitates innovation and not only leads to the successful development of new products and services but also allows family firms to outperform their non-family counterparts in process innovation (Broekaert et al., 2016).

iv. Lower costs: Family firms exhibit better performance in periods of economic downturn relative to non-family firms. The reason for higher resilience to economic contractions of family-owned businesses can be attributed to lower costs. To keep the business afloat, family businesses cut costs more sharply when sales decline. Family members, for instance, are willing to take financial sacrifices such as a temporary pay cut or contribute some of their own finances while the business is struggling. When sales increase again, family firms increase the costs less than their non-family counterparts (Abudy & Shust, 2022).

Table 2: Key advantages and disadvantages of a family firm

Advantages	**Disadvantages**
Long-term orientation	Succession planning
Strong commitment	Family conflict
Organizational flexibility	Skills shortage
Lower costs	Financial constraints

Source: Own work.

2.4 Key challenges of a family firm

While family firms exhibit numerous strengths such as long-term orientation, strong commitment, flexibility, and lower costs, they have their own specific challenges that block the road to success (see Table 2). The key challenges of a family-owned business include the following:

i. Succession planning: The most common reason for family business failure is the lack of succession planning. Only one-third of family firms survives the transition to next-generation management control. Normally the owner spends time working to develop the business instead of developing the succession plan. Therefore, the successor is often ill-prepared for running the business when the owner becomes incapacitated. In addition, resistance to succession exists across various levels of the organization and strong emotions such as the inability to let go of the family business tend to act as obstacles to successful succession (Umans et al., 2020). While succession planning may be challenging and only a few family businesses succeed in doing so, succession promotes innovation in the family business and thereby facilitates further growth of the business (Ballal & Bapat, 2019).

ii. Intra-family conflict: While disputes may arise in any company, conflict within a family firm can become personal. The genesis for such conflicts is oftentimes rooted in the overlap of family and business system and can include intergenerational animosity, rivalry between siblings, marital disputes, etc. In case of a conflict between family members, non-family employees can take sides with family members closest to them, which can lead to bad feelings and a stressful work environment, and thereby destabilizing the business operations. In fact, conflict plays a key role in family business failure as they negatively influence business performance and deteriorate family relations (Arifi, 2018). Furthermore, family conflicts create new agency costs and reduce R&D spending, which in turn leads to lower levels of innovation within the family firm (Calabrò et al., 2019).

iii. Skills shortage: More than ever before, the success of a modern business depends on managers' skills and experiences to navigate the organization through rapidly changing circumstances. Yet, family firms are less likely to employ skilled personnel than non-family firms due to nepotism (Andersson et al., 2018). Since family firms tend to appoint family members without appropriate education or training to key roles and are reluctant to hire executives from outside, managerial skills are often missing. Such skill shortages are often associated with lower levels of internationalization, unhappy employees, lower labor productivity, and consequently low performance (Buloga et al., 2017). In addition, a lack of skills leads to less innovation as a skills shortage induces the cancellation of innovation projects (Horbach & Rammer, 2022).

iv. Financial constraints: Family-owned companies are more financially constrained than other non-family companies. Since family firms are more risk-averse, they are characterized by lower levels of debt. They prefer internal financing and tend not to rely on external financing due to socioemotional wealth considerations. Namely, family firms strive to keep control over the company and pass it on to the next generation (Jansen et al., 2022). Such presence of financial constraints is associated with reduced innovation input and limited growth potential of the company (Schaefer et al., 2015). Although family firms tend to be more liquid, they exhibit a weaker positive relationship between cashflows and growth (Doucet & Requejo, 2022). Since family firms are more financially constrained, they invest less in R&D, thereby reducing their competitiveness and sustainable development. On average family firms’ ratio of R&D investment to business income is 3.46 percent compared to 4.17 percent in non-family firms (Zhao & Wu, 2022).

2.5 Family firms in Slovenia

Family-owned businesses represent the backbone of the economy as they are the most prevalent organizational form in most national economies. In the EU, family businesses account for 70-80 percent of all companies, employing 40-50 percent of all employees. Yet, there are some discrepancies on the national level. In Slovenia, for instance, it is estimated that more than 80 percent of all companies are family-owned and employ 70 percent of all employees (Letonja et al., 2021). However, it is important to note that the above percentages largely depend on the definition of a family firm used. In theory, no universal definition exists since the term family firm is not set in stone by law, but rather represents a sociological concept (Wagner, 1994).

Nevertheless, family firms play an important role in the economic growth, stability, development, and well-being of economies worldwide. To further exemplify the great importance of family firms: approximately 20 percent of Fortune 500 companies are family-owned. Similarly in Spain, almost 20 percent of the 100 largest companies are owned by families. As for the success of Slovenian family firms, they generate 69 percent of total sales and 67 percent of value-added, which is a lot considering the fact that Slovenia experienced the rise of family firms only after 1990, marked by the end of the Socialist system (Letonja et al., 2021).

In former socialist countries, including Slovenia, research on family firms remains in its infancy. Very little is known about how family firms are managing challenges, such as challenges involving innovation. The root cause for such scarcity of family firm studies lies in the fact that private companies were outlawed under the socialist system. The collapse of the Socialist Federal Republic of Yugoslavia in 1990, followed by a transition to a market economy created opportunities for entrepreneurship and family firm development. Since then, the number of small and medium-sized enterprises (SMEs) in Slovenia proliferated and employment has grown by 400 percent (Duh et al., 2007; Lahovnik, 2000). Nowadays, some of the most successful Slovenian family firms include Zlatarna Celje, Iskra, Steklarna Hrastnik, Medis, Jagros, Sibo G, etc. (Finance, 2021).

3 INNOVATION IN FAMILY FIRMS

The third chapter provides a comprehensive review of the vital element of entrepreneurial success, i.e., innovation (Kabir, 2019). The chapter provides the definition of innovation, then it describes common types of innovation and their impact on family firm performance. The chapter continues by presenting different levels and magnitudes of innovation. Further on the chapter analyses main innovation inputs in family-owned firms in Slovenia, also referred to as drivers that positively contribute to innovation, as well as obstacles that block the road to a faster innovation process. To identify the drivers and inhibitors of innovation, the chapter leans on key family firm characteristics. In a separate part, the chapter explores the policy perspective to determine whether the state drives or hinders innovation in family firms. The chapter focuses on the role of the Slovenian government for family firm innovation by considering policy uncertainty, the state's subsidies, and public incentives. The chapter ends by establishing why family firm innovation is of great importance not only for the firm but also for the national economy.

3.1 Defining innovation

Every business leader believes that innovation is important, not only for the company but also for the society and economy in general. Yet, nobody seems to agree on what it actually means. The concept was first introduced in 1934 by Joseph A. Schumpeter, the founder of innovation theory, who claimed that innovation is the catalyst for change in the economy. Since it drives economic growth and development, "carrying out innovations is the only function which is fundamental in history" (Schumpeter, 1934). His definition was heavily based on the novelty factor as he penned that innovation involves the development of a new product, new production method, new business model, new market, new sourcing option, or even new enterprise (Kabir, 2019). Later his definition has been broadened.

Table 3 summarizes a few other important definitions of innovation. Similarly, King & West (1987) came up with the following four characteristics to help define innovation:

- Innovation does not necessarily have to be a completely novel idea. By contrast, innovation can also be an imitation if it is new to the adopting company.
- Innovation is tangible. It can represent a component, product, service, process, business model, etc.
- Innovation is not unintentional as it must be premeditated.
- An idea is not innovation by itself. Instead, it is a small beginning of innovation.

Innovation may take numerous forms, all characterized by a state of novelty, which does not only concern R&D, but also technological innovation. In line with such a view, the thesis considers innovation as all the activities enabling the company to come up with, develop, produce, and introduce new products, services, processes, and/or business models that have economic or social value (Kabir, 2019).

Table 3: Defining innovation

Author(s)	Definition of innovation
Schumpeter (1934)	Innovation is the economic impact of technological change derived from new combinations of new knowledge, resources, equipment, or other factors.
Urabe (1988)	Innovation involves the generation of new ideas and their implementation into a new product, service, or process, thereby facilitating the growth of the national economy, employment, as well as the profit of the innovative company.
Twiss (1989)	Innovation is the process that combines science, technology, economics, and management to achieve novelty and its commercialization across production and/or consumption.
Afuah & Utterback (1997)	Innovation is new knowledge incorporated into products, services, or processes.
The Organization for Economic Cooperation and Development (OECD) (2005)	Innovation is the implementation of a new or significantly improved product, service, process, marketing method, or organizational method into business practices, workplace, organization, or external relations.
Singh & Aggarwal (2022)	Innovation refers to the operationalization of creative potential with a commercial and/or social purpose by implementing new adaptive solutions that create value, harness new technology or invention, and contribute to competitive advantage and economic growth.

Source: Own work.

3.2 Types of innovation and their effect on family firm performance

The literature lists various types of innovation, but most frequently it mentions the following three: product or service innovation, process innovation, and business model innovation. The subchapters below give a detailed description of such common types of innovation and how they affect company performance.

3.2.1 Product and service innovation

Product or service innovation concerns a commercial introduction of a new product or service to the customer (Schumpeter, 1934). It enables the introduction of better or improved products and services or the development of goods and services with characteristics of use that are different from the ones previously made by the company, which includes major improvements in technical specifications, components, materials, software, user-friendliness, etc. Product or service innovation may either utilize new technologies and knowledge or be based on new uses or combinations of existing technologies and knowledge. A manifestation of product innovation may be: a new concept based on a new idea; the use of new materials and components with improved characteristics; a new design that involves not only alterations of shape and appearance, but also ergonomic aspects and manufacturing adaptations; new services that come with the product or finding new uses of the product. For example, when UPS and FedEx launched one-day delivery, this represented a service innovation (Maier, 2018).

A company's economic consequences and associated product or service innovation are often the product of organizational culture. Highly innovation-supportive cultures foster teamwork and promote risk-taking and creative behavior that seems directly linked to effective new product and/or service development (Jassawalla & Sashittal, 2002). While family firms might not be risk-loving, they do perform well with respect to teamwork. Namely, family-owned businesses employ a tight-knit team that has stayed with the company for a long time. Team members are loyal and committed to the company as they feel a strong sense of belonging (Malone, 2020).

In addition, innovative organizational cultures exhibit greater customer orientation and tend to be less competitor oriented. Customer orientation leads to the introduction of new-to-the-world products and services, whereas competitor orientation leads to launching new products that are similar to competitors' and are not new to the world. A greater degree of supply chain integration is also linked to product and service innovation as it enables better customer orientation and generates renewing value propositions for customers. Since family-owned businesses engage less in internationalization, they tend to have a lower level of supply chain integration (Andersson et al., 2018; Molina-Quintana & Quintana-Leon, 2021). Furthermore, product innovation is higher in highly servitized companies. Such effect can be attributed to the insights and knowledge gained through a closer relationship with customers via services (Freije et al., 2022). Yet, family businesses have lower levels of servitization as family governance prevents the dilution of socio-economic wealth through service-related collaboration with outsiders (Guedes et al., 2022).

Product and service innovation is a high-risk endeavor, fraught with difficulties and littered with failures. While family firms are prone to be risk-averse, they are experiencing increasing pressure to launch new products and services if they want to succeed in a hyper-competitive market. The reasons for such type of innovation may be because existing products and services no longer meet the needs of consumers due to changes in their tastes and preferences. The environment is ever-changing and creating new needs. Furthermore, the existing products and services become obsolete if competition introduces new products and services, associated with new technologies. Without product and service innovation, a firm's growth potential is severely limited (Maier, 2018).

Therefore, such innovation is of key importance to any company, not just a family-owned one. Not only does product and service innovation positively influence company performance, but also helps the firm gain and sustain competitive advantage by differentiating production or improving the quality and variety of goods and services. Improved product or service quality supported by product and service innovation has a significant positive relationship with brand image. In addition, product and service innovation enables the company to generate additional demand and opens new growth opportunities in domestic and foreign markets. Since business prosperity and its long-term survival is the goal of any family firm, family business leaders should actively promote product or service innovation. Product and service innovation benefits the firm's performance and profit as well as poses greater perks to the macroeconomic environment. An increase in the equilibrium level of employment, for instance, can be attributed to product and service innovation (Maier, 2018). Such positive effects of product and service innovation extend also to transition economies like Slovenia used to be (Ramadani et al., 2019).

3.2.2 Process innovation

The majority of discussions about innovation found in the academic literature predominantly focuses on product or service innovation. However, process innovation is equally important. Process innovation involves the application of a novel approach to creating products and services. It concerns the implementation of new or improved production methods that underwent major changes in techniques, equipment, or software. Process innovation tries to solve an existing problem in a different way. For example, when Henry Ford introduced the assembly line in the manufacture of automobiles, this was considered a process innovation (Chandy & Prabhu, 2010). Family-owned firms from the manufacturing and service sector tend to be especially good at such type of innovation as they produce significantly more process innovations than their non-family counterparts (Werner et al., 2018).

Process innovation can generate value for the company, its customers, employees, or even business partners. It is linked to productivity growth in both small and large companies. However, the productivity increase seems to be longer-lasting in large firms, i.e., more than two years since the implementation of process innovation, while the productivity boost in small firms lasts at least one year after the implementation. Small firms are likely to introduce process innovation in a form of new machines, whereas large firms perform process innovation through the introduction of new machines as well as new organizational methods of production. In other words, in large firms process innovation tends to be of greater scope (Rochina-Barrachina et al., 2010). As established in the previous chapter, family firms are likely to be small in size, but this is not necessarily the rule as there are countless exceptions like Walmart.

Furthermore, process innovation not only improves the productivity of labor and capital but also lowers production costs, which is especially beneficial for companies that operate in industries with high labor costs. While family firms tend to have three to five percent lower labor costs compared to their non-family counterparts, process innovation still contributes to their competitiveness (Breda, 2018). It enables companies to remain competitive while meeting customer demands. New and improved methods of production can also enhance the quality of products and services, thereby indirectly increasing customer satisfaction and improving brand image. Altering different aspects of an organization's processes optimizes product development. By reducing time spent on performing different tasks and activities, process innovation boosts efficiency and increases performance.

Improving business processes can also result in decreased amounts of waste. Digitalizing a company, for instance, enables it to go paperless and generate less paper waste. Moreover, artificial intelligence, big data, robotics, and other technologies represent powerful tools for process innovation and play a vital role in optimizing deliveries, obtaining real-time data, and boosting customer engagement (Bena et al., 2022). Despite the numerous benefits of implementing new technologies, family firms remain reluctant to embrace digitalization because they avoid losing control. A family-owned company's desire to maintain control leads to family firms investing in technologies that are similar to existing technologies instead of venturing into radically new technology trajectories. However, family firms do favor the adoption of new technologies if protection mechanisms are put in place that prevent the loss of control over the firm (Batt et al., 2020; Kotlar et al., 2013).

Therefore, process innovation is highly important, but it requires top management support and a longer planning period. Namely, process innovation necessitates a specific combination of skills, facilities, and technologies, for which investment and reskilling of the workforce are needed (Rochina-Barrrachina et al., 2010).

3.2.3 Business model innovation

Managers and researchers tend to focus their efforts on continuous innovation of products or services to realize long-term viability. While companies must innovate their products and services to remain competitive, fierce competition, especially technology-driven competition, increasingly requires companies to change their business models to keep up with the dynamic market environment. To address such challenges, businesses require a different but also essential type of innovation: business model innovation (Keiningham et al., 2020).

The way in which a company creates, delivers, and captures value is referred to as the business model. Business model innovation concerns the change of value proposition. Such change requires neither the introduction of new products and services to new markets nor the use of novel technologies. Instead, business model innovation occurs when following a holistic approach by integrating value creation, delivery, and capture into an organized system. Putting the three aspects together in a new way may generate more value for both the company and the consumer. For example, when Netflix went from a DVD rental store that delivered DVDs to customers via mail to an online streaming service, it underwent a business model transformation that stemmed from innovation. In the Netflix case, business model innovation involved a comprehensive recommendation algorithm alongside backward integration into content production (Girotra & Netessine, 2014). In other words, business model innovation includes new, non-trivial, and designed changes to the main elements of an organization's business model and/or the architecture linking these elements (Parida et al., 2019). Yet, such changes present significant challenges to family firms as they are likely to be locked in their long-established structures (Weimann et al., 2020).

The aim of business model innovation is to increase revenue by enhancing the value of products and services as well as their delivery. As such, business model innovation's success often relies on customer experience. Similarly, efforts to substantially differentiate the customer experience require business model alterations (Keiningham et al., 2020). In fact, business model innovation often happens due to external drivers like new behavioral opportunities, changes in the competitive environment, globalization, or new technological opportunities enabled by digitalization (Breier et al., 2021). To respond to technological changes and exploit their opportunities, dynamic capabilities are crucial for all companies but especially family-owned ones that are characterized by their desire to succeed for future generations. Since dynamic capabilities serve as antecedents of business model innovation, fostering them greatly affects the degree of business model innovation (Weimann et al., 2020).

Business model innovation is heavily connected to digitalization. Namely, digitalization acts as the enabler of business model innovation, also for a sustainable industry. Appropriate business models are essential for the derivation of benefits from digital technology economically, environmentally, and socially. By contrast, failure to implement an appropriate business model leads to technology yielding less value. Industry 4.0 introduced many digital technologies such as the Internet of Things, artificial intelligence, automation, predictive maintenance, big data, the cloud, advanced analytics, smart sensors, etc. that provide business model development opportunities as they facilitate value creation, delivery, and capture (Parida et al., 2019). Yet, family firms tend to lag behind their non-family-owned counterparts with respect to digitalization. In fact, they tend to implement new technologies later compared to non-family firms (Rejeb et al., 2021)

If implemented well, business model innovation has the power to bring larger benefits to the company than product or process innovation. It enables the company to take advantage of changing consumer demands and expectations similar to the case of Netflix, thereby enabling the company to remain competitive or even substantially increase its market share. Business model innovation tends to have a stronger impact on profit margins compared to product or service innovation, and simultaneously, it presents the power to disrupt industries or even create new ones. It not only ensures competitiveness, profitability, and business growth but also allows the long-term survival of the business, which is the goal of every firm but especially family-owned ones as they want to preserve the family dynasty. Moreover, business model innovation plays an important role in responding to crises such as the COVID-19 pandemic. In turbulent times, proactive reinvention of a company's business model becomes a crucial source of competitive advantage as it enables the company to develop novel ways to create and capture value (Breier et al., 2021).

3.3 Levels of innovation

In addition to different types of innovation, a further differentiation in terms of the level of innovation exists. Innovation is typically classified into different levels depending on the effect a manager's response to innovation has on the existing organizational framework (Heider et al., 2022). For example, when developing new products and services, managers must adopt new values and priorities that may require them to modify the existing supply chain, procurement, marketing, organizational culture, etc., which disrupts the company. The more business functions are disrupted, the greater the impact, and thus, the level of innovation. The level of innovation plays a key role in the use of managerial activities and instruments in the course of an innovation process (Al-Tameemi et al., 2018). Some scholars like Christensen (1997) distinguish between two levels of innovation according to the company's existing capability to implement innovation:

i. Sustaining innovation: Such innovation fits well with the company's business model and stimulates managers to improve their existing managerial processes and capabilities, rather than create new ones.
ii. Disruptive innovation: Such innovation requires changes to the company's existing business model, disrupts the company's values and priorities, and pressures managers to come up with new management processes.

Table 4: Innovation matrix

Technology	New	Semi-radical innovation	Radical innovation
	Existing	Incremental innovation	Semi-radical innovation
		Existing	New
		Business model	

Source: Al-Tameemi et al. (2018).

Al-Tameemi et al. (2018) differentiate between the following three levels of innovation: incremental innovation, semi-radical innovation (driven by either the technology or the business model), and radical innovation (see Table 4). Such classification of innovation is based on the change the innovation will cause to the company's technology and business model.

3.3.1 Incremental innovation

An incremental innovation corresponds to the lowest level of innovation and involves only minor modifications of existing products, services, processes, and/or business models. Although some elements may change slightly, the majority remains unchanged (see Table 5). Incremental innovation embraces the use of existing technologies and fits well with the existing business model while providing small improvements in benefits. Moreover, it does not require an expensive budget, a large team, or a reorientation of the business strategy, and thus, is usually tolerated well by an organization. As such, most of the innovation is incremental. For long periods of time, incremental innovation can be extremely successful. Numerous renowned brands worldwide such as Gillette have maintained their leading position due to incremental innovation. Since launching the first safety razor, the company has slowly changed its product to better suit consumer needs (Chandy & Prabhu, 2010).

Family-owned companies tend to be well-equipped for the exploitation of opportunities in areas similar to their existing operations through the pursuit of incremental innovation. The reason why family firms are prone to attain incremental rather than radical innovation lies in their long-term orientation and their unique resources such as human and social capital. By continuously improving their existing competencies through incremental innovation, family-owned companies create financial value and competitive sustainability over generations. However, to be "future-proof" family firms ought to seek more than just incremental innovation in their daily operations (Heider et al., 2022).

Table 5: The levers for the three levels of innovation

<table>
<tr><th rowspan="2">Levels/ Levers</th><th colspan="3">Business model levers</th><th colspan="3">Technology levers</th></tr>
<tr><td>Value proposition</td><td>Value chain</td><td>Target customer</td><td>Product & service</td><td>Process technology</td><td>Enabling technology</td></tr>
<tr><td>Incremental</td><td colspan="6">A small change in one or more of the six levers</td></tr>
<tr><td>Semi-radical (business model driven)</td><td colspan="3">A significant change in one or more of the three levers</td><td colspan="3">A small change in one or more of the three levers</td></tr>
<tr><td>Semi-radical (technology driven)</td><td colspan="3">A small change in one or more of the three levers</td><td colspan="3">A significant change in one or more of the three levers</td></tr>
<tr><td>Radical</td><td colspan="3">A significant change in one or more of the three levers</td><td colspan="3">A significant change in one or more of the three levers</td></tr>
</table>

Source: Davila et al. (2012).

3.3.2 Semi-radical innovation

A semi-radical innovation refers to a moderate level of innovation that can be driven by either the technology or the business model. It requires a higher degree of innovation than incremental innovation, but it does not have such a transformative power as radical innovation. Semi-radical innovation poses little or no changes to levers of innovation. While business model lever changes include alterations to (1) the value proposition, (2) the value chain, and/or (3) the target customer, technology lever changes involve modifications of (4) existing products and services, (5) process technologies, and/or (6) enabling technologies (Davila et al., 2012).

Significant changes in business model levers accompanied by small changes in technology levers indicate business-model-driven semi-radical innovation. By contrast, small changes in one or more of the three business model levers combined with significant changes in one or more of the technology levers imply a technology-driven semi-radical innovation. In other words, technology-driven semi-radical innovation involves the use of new technologies that fit well within the existing business model, whereas semi-radical innovation driven by the business model includes the use of existing technologies and substantial changes to the business model. Semi-radical innovation can cause great changes in the competitive landscape by introducing new technologies or business models and combining them with existing ones (Davila et al., 2012).

3.3.3 Radical innovation

A radical innovation corresponds to the highest level of innovation as it concerns modifications to both business model and technology levers, but usually not to all six of them (Davila et al., 2012). It employs new technologies and a new business model whilst providing significantly improved customer benefits relative to existing products, services, and processes. A radical innovation presents extreme improvements in customer benefits evident in market breakthroughs and combines them with the technological novelty of technology breakthroughs. It can lead to the birth of new industries enabled by revolutionary technologies that allow society to take great leaps forward. As such, radical innovation is a rare form of innovation (Chandy & Prabhu, 2010).

For example, take the refrigerator industry. In the 19th century, the business model of ice cutting included harvesting ice from lakes, storing it in caves to prevent melting, and transporting it as perishable goods. In the 20th century, a successful industry was radically transformed by revolutionary technology, i.e., refrigeration, and incremental innovations in harvesting, storing, and transporting were suddenly deemed obsolete (Davila et al., 2012).

Family-owned companies are less likely to achieve radical innovation. Yet, radical innovation is essential to ensure the long-term survival of the firm which represents one of the main goals of any family firm. Family firms are often characterized by their restricted human capital which is responsible for the underinvestment of financial capital in radical innovation. Consequently, family firms struggle with limited growth opportunities as it is difficult to balance family firm-specific resources with innovation capacity (Heider et al., 2022).

While radical innovation may bring substantial benefits to the company, its success remains significantly correlated with implementation effectiveness in a sense of top management support, financial resource availability, appropriate policies, etc. The bigger the change, the greater the resistance to change within the company. Therefore, radical innovation deals with high resistance to change as it has the highest level of impact on the company and is perceived as disruptive to the way things work. Such a level of change is likely to evoke a strong antibody response from the company (Al-Tameemi et al., 2018).

3.4 Magnitude of innovation

In addition to various types and levels of innovation, Heider et al. (2022) distinguish between two different magnitudes of innovation that underline a company's innovation strategy:

i. Exploitative innovation: The term exploitative innovation is reserved for improving and extending existing competencies, technologies, and paradigms. Exploitative innovation is considered a conservative strategy that involves building new methods on existing products, services, resources, etc. March (1991, p. 71) encompasses exploitative innovation with words such as refinement, selection, choice, efficiency, production, implementation, and execution.
ii. Explorative innovation: Explorative innovation refers to experimentation with new alternatives and innovating from the scratch. It is heavily based on technology and may yield new value while replacing existing products. March (1991, p. 71) describes explorative innovation with the following words: search, experimentation, risk-taking, play, discovery, flexibility, and variation.

As a result of their unique human and social capital as well as their long-term orientation, family firms tend to attain exploitative rather than explorative innovation strategies, meaning they meet the needs of existing customers and markets and build on the existing knowledge, skills, processes, and structures. Family-owned companies tend to engage in exploiting opportunities that are close to the domain of their current operations. However, they should pursue both exploitative and explorative innovation to secure longevity and performance advantages. In a dynamic business environment, the exploration of new opportunities in a sense of new markets or products typically leads to radical innovation which is indispensable when existing markets or products saturate (Heider et al., 2022).

3.5 Family-specific drivers of innovation

Family-owned companies might be thought of as traditional and stagnant. However, research shows that they are actually more efficient when it comes to the innovation process. While family firms tend to be associated with lower innovation input such as R&D spending, they have a greater innovation output compared to their non-family counterparts. Namely, for every dollar spent on R&D, family firms produce a higher innovation output, measured by the number of patents, number of new products, and/or revenues generated with new products (Werner et al., 2018). In this subchapter, I will analyze what drives family firms to be innovative. The main drivers of innovation are largely connected to the key characteristics of family firms that make them unique. The key innovation drivers include long-term orientation, knowledge preservation, family involvement, organizational flexibility, entrepreneurial family members and employees, technological progress, etc.

Firstly, a family firm's long-term orientation positively impacts the level of innovation output, and thus, such a family philosophy can be considered one of the most important drivers of innovation. Due to their traditions and long-term strategy, family firms carefully consider internal as well as external factors that urge them to invest in innovation. The long-term orientation contributes to the development of an atmosphere of commitment, trust, and motivation. Generally, family-owned companies are keen on fostering a family-like culture where employees are encouraged to cultivate more personal relationships among each other and the company's management, thereby helping co-create a warmer and less siloed workplace. Such a positive work environment then increases the circulation of knowledge within the company and hence drives innovation capacity (Werner et al., 2018). The family business culture influences important strategic decisions. Such decisions are then taken in line with family-specific values and characteristics and result from the employees' deep business commitment. Therefore, family business culture directly influences innovation (Comin et al., 2018).

Secondly, the importance of non-financial objectives implies a long-term approach that emphasizes low fluctuation rates of the workforce even in times of crisis or in the period of family succession. Since employees in family firms exhibit a higher degree of job satisfaction, they are less likely to leave the company. In a crisis, family firms also do not lay off their employees as opposed to non-family firms, but rather limit the number of new hires. Such HR policy lowers fluctuation rates and prevents the long-term loss of knowledge, an intangible resource that in turn positively affects the innovation output of the family firm and can be considered as another driver of innovation. Lower employee fluctuation rates in family firms preserve valuable knowledge, expert insights, and experiences that facilitate innovation output (Werner et al., 2018). As noted in Chapter 3.1, innovation is by definition a combination of knowledge, and thus, innovation can take place only in the presence of knowledge (Schumpeter, 1934).

Thirdly, a high degree of family members' involvement in governance and daily managerial activities positively contributes to the innovation output. It plays a moderating role between innovation inputs and outputs. Therefore, it is a driver of innovation in family firms. Family involvement represents a distinctive property of family firms that explains their strategic behavior with resources and capabilities. Since family firms possess a distinct set of resources and capabilities that cannot easily be duplicated due to the interplay of family and business systems, they enable family members to interact with the business system in a fast, flexible, and unstructured way that makes management more efficient and stimulates innovation, especially the exploitative type (Heider et al., 2022). Family involvement gives the company a competitive edge as it can increase innovation capacity and leverage it. In fact, family involvement directly impacts the development of new products and services, which contributes to the competitive advantage of the company (Comin et al., 2022).

In addition, one of the key strengths of family firms is their organizational flexibility which acts as a driver of innovation (explained in Chapter 2.3). A high level of flexibility enables family firms to change their organizational structure or external relations more easily. Such characteristic is essential for renewal and often translates into innovation. Since organizational flexibility pertains to external partners, they may help generate new ideas (Broekaert et al., 2016). In fact, the involvement of external managers in the top management of family firms has a positive effect on exploratory innovation (Heider et al., 2022). While collaboration with suppliers and customers tends to yield incremental product innovations, collaboration with universities is linked to radical product innovations. To innovate successfully, organizations must adapt their internal organizational structure as well as the organization of external relations. Therefore, an organization's ability to implement a specific organizational structure is less important than organizational flexibility as the latter enables the firm to switch from one form to another and then back again (Broekaert et al., 2016).

Key drivers of innovation include entrepreneurial family members and employees since they act as they provide comprehensive innovation input. Entrepreneurship acts as a facilitator of innovation because it enhances creativity and out-of-the-box thinking without which innovation cannot occur. Entrepreneurship enhances the willingness of individuals to take risks and risk-taking is positively linked to innovation. A key component of entrepreneurship is also the ability to adapt to rapidly changing market conditions that require changing products, services, and/or business models, which is essentially innovation (Kallmuenzer, 2018).

Although family firms are likely to lag behind non-family firms in terms of digitalization of the business, they still consider technological progress as a key driver of innovation (Rejeb et al., 2021). Bergfeld & Weber (2011) found that successful family dynasties in Germany refer to innovation as the ability to continuously address new technologies and markets founded on a basis of a defined long-term strategy. Technological progress has a huge impact on market dynamics. When new technologies become available to companies, they have the power to transform various business areas, from value chains, operations, business models, to markets. Not only do new technologies facilitate the creation of new products and services, but they can also drastically transform industries or even create new ones through radical innovation. In the past, only large multinational corporations experimented with new technologies due to the immense expenses connected to them. Nowadays, more affordable technologies enable, inter alia, family firms, typically characterized by their small size, to experiment and engage in not only exploitative but also explorative innovation (Andersson et al., 2018; Brynjolfsson & McAfee, 2012).

All in all, family firms possess some important characteristics that act as drivers of innovation. This subchapter focused on the long-term orientation of family firms, knowledge preservation through low fluctuation rates, family involvement in the daily business, organizational flexibility, and entrepreneurial family members as well as employees. Yet, it is important to note that more innovation is driven also by other factors in family firms that have not been listed. Breier et al. (2021), for instance, highlight the importance of the following drivers for business model innovation: time availability, regular clients' requests, and overall pressure to change coming not only from the customers but also the competitors and the industry in general. Furthermore, Park et al. (2019) identified technology, market conditions, and regulation to be the main innovation drivers in family firms.

3.6 Family-specific barriers to innovation

Family firms are often thought of as stagnant and conservative due to their unique obstacles to innovation. When innovating, family-owned firms face specific barriers inherent to the process of change that put them at risk of jeopardizing their internal and external resources. Literature on family firms often stresses that they face the innovation paradox, i.e., even though family firms possess the ability to innovate more, they do not because they lack the willingness to do so. This subchapter identifies the main negative characteristics of family firms that act as sources of inertia that hinders innovation, and consequently, business performance (Lorenzo et al., 2022).

One of the common inhibitors of innovation frequently mentioned in the family firm literature is risk aversion. Family firms tend to exhibit a higher degree of risk aversion in order to preserve socioeconomic wealth and tradition, keep control over the firm, and ensure the perpetuation of the family dynasty. Thus, family firms' long-term orientation can act counterproductive for innovation as they protect their wealth by avoiding risky projects. In fact, family firms exhibit lower levels of R&D expenditure compared to their non-family counterparts due to risk aversion. Family leadership promotes path-dependent behaviors within family-owned companies, providing familiarity for decision-makers who perceive past solutions as less risky than attempting to solve a challenge in a completely new way, thereby discouraging innovation. State-of-the-art solutions that result from innovation are associated with high risk to the financial situation of the family. Therefore, family members whose goal is to keep the company alive for decades tend to oppose such high-risk endeavors, which leads to conflicts between family members (Lorenzo et al., 2022).

Conflicts among relatives act as the second factor negatively affecting a family firm's innovative performance. Family conflict may arise due to various reasons including diversity of family goals and different levels of participation in the business. Different goals among generations of family members hamper decision-making and stir up conflicts that impede change within the family firm. Consequently, family firms dedicate fewer resources to R&D, thereby reducing innovation activities, and delaying or even stagnating innovation. Inter-generational conflict reduces innovation intensity, leading to agency costs that tend to be toxic for the innovation culture in the long term. Conflicting interests, rivalry, and jealousies lead to impaired knowledge transmission within the company which in turn hinders innovation. In fact, less innovative businesses exhibit relevant information gaps. A high volume of work and available time have a similar effect on knowledge transmission. An infinite workload weakens interactions between family members and reduced communication impairs the ability to put forward common ideas related to innovation (Lorenzo et al., 2022).

Moreover, nepotism acts as another family-specific barrier to innovation. Nepotism refers to discrimination against non-family members in a sense of hiring based on family ties rather than considering the competencies of the individual. On one hand, family firms may keep the knowledge in the company longer than non-family firms through low fluctuation rates. On the other hand, nepotism-filled hiring practices of the family create skill shortages and knowledge gaps within the company that discourage innovation. Moreover, nepotism extends to the promotion practices of the family firm. When nepotism is strongly felt, it negatively affects the motivation and satisfaction of the employees leading to the uptake of fewer new innovation projects as better-qualified non-family employees feel unheard. Nepotism in decision-making may fuel conflicts among family and non-family members, obstructing the implementation of innovation processes and compromising solutions that undermine the desired change (Lorenzo et al., 2022). Due to the extreme focus on socioemotional wealth preservation and partly because of their limited cognitive diversity and absorptive capacity generated by nepotism, family firms prefer a less diversified set of external innovation stakeholders with the knowledge that may help generate novel ideas that spark innovation. Connections with external partners expose family members to new knowledge that reduces rigidity in the mental model of decision-makers in family firms (Werner et al., 2018).

Thus, a further major hurdle to innovation is often rigidity faced by family firms. Due to the presence of strict family norms, literature depicts family firms as having a high degree of rigidity. Rigidity may pose specific obstacles to family firms such as enhanced emotional ties to certain existing assets and rigid mental models among family members that prevent the implementation of new technologies and make changing processes very difficult. Despite the lower levels of formalization in governance structures of family firms, the presence of rigidity in the mental models of decision-makers negatively affects organizational flexibility that acts as a driver of innovation. For changes to occur, two types of business inertia must be overcome – rigidity of resources and rigidity of routines. Rigidity does not involve only the first-generation founders but extends also to subsequent generations (Calabrò et al., 2019).

In fact, with company age and generational succession, family firm innovativeness and innovation output tend to decline, with the third generation of family owners being least likely to produce innovation output. The founding generation of owners typically focuses on implementing new and improved processes to lower costs and boost quality as well as introducing more new products and services to the market than later generations. This is because next-generation owners tend to be more risk-averse and sensitive to uncertainty than the previous generation since they feel the pressure to preserve the family business. The founding generation had little to lose and everything to gain from a financial viewpoint as the company was still young, whereas subsequent generations deal with a company that has already grown and typically generates greater profits. Moreover, passing control onto the next generation is often accompanied by a clash of interests, conflict, resistance to change, and disapproval, all of which acts as an obstacle to innovation. The first generation had the motivation to establish the firm, the motivation that drives innovation, which cannot be assumed for later generations (Werner et al., 2018).

There are other hinderers of innovation in family firms, for instance, financial constraints. Family-owned enterprises tend to have a higher number of financial constraints compared to their non-family counterparts (Jansen et al., 2022). Great financial constraints significantly diminish the likelihood of companies engaging in innovative activities. Moreover, financial obstacles lead to companies abandoning, prematurely stopping, slowing down, or even not starting an innovative project. More specifically, García-Quevedo et al. (2018) found that financial constraints have the greatest effect on abandoning the innovation project. During the design phase, firms are extremely sensitive to internal financial sources, whereas in the execution stage external financial sources play a more important role. Such impact of financial constraints is stronger for small companies such as family firms (Savignac, 2008).

Table 6: Key drivers and barriers of innovation in family firms

Drivers of innovation	**Barriers to innovation**
Long-term orientation	Risk aversion
Knowledge preservation	Nepotism
Family involvement	Family conflict
Organizational flexibility	Rigidity
Entrepreneurial family members	Company age
Technological progress	Financial constraints

Source: Own work.

Table 6 provides a summary of key drivers and barriers of innovation in family firms. Note that there are also other factors contributing or inhibiting family firm innovation that are not listed in the table.

3.7 The role of the state in family firm innovation

Since innovation is characterized by high risks, high costs, and long cycles, it requires a great amount of government support. When it comes to family firm innovation, the role of the state is often ambiguous. Government subsidies should, in theory, remedy market failures and encourage innovation in family firms. Yet, in practice, there are several challenges connected to knowledge asymmetry between businesses and the government causing poor incentive effect of subsidies on family firm innovation. To get the state's innovation-intended support, some family firms have adopted low-quality innovation behavior that can go to the extreme of defrauding subsidies (Zhao & Wu, 2022). Thus, by considering the policy uncertainty and government subsidies, the focus of this subchapter will be on the analysis of whether the state drives or hinders family firm innovation.

3.7.1 The effect of policy uncertainty on family firm innovation

Uncertainty related to economic policy is a common institutional context that affects family firm innovation in several ways. Recurrent policy changes cause temporary negative shocks to family firms in times of economic downturns, and consequently, lead to a higher risk of external financing and investment as well as shift the business goals from short-term to long-term goals. Because policy uncertainty drives the costs of external financing, family firms need to act more innovatively and boost internal transactions to grow cash holdings. Policy uncertainty lowers the financialization and asset returns of family firms, which in turn negatively affects short-term returns. Therefore, family-owned companies feel motivated to enhance their long-term investment, including R&D related, with the aim of maintaining smooth operations. Long-term goals are aligned with the goals of socioemotional wealth, which increases the family firm's willingness to engage in innovative activities. Moreover, policy uncertainty alters the preferences of family firms and boosts managerial risk-taking, which in turn drives innovation. In fact, based on the economic policy uncertainty index, policy uncertainty is positively linked to R&D investment, patent applications, and technological innovation of family firms (Qi et al., 2022). For such reasons, the state acts as a driver of family firm innovation.

However, policy uncertainty can have a negative impact on family firm innovation. Uncertainty in national elections, for instance, harms motivation to innovate in family firms. Such an effect is more prominent in innovation-intensive enterprises. Delayed R&D decisions, blocked innovation activities, and temporarily reduced innovation efficiency are also associated with policy uncertainty (Qi et al., 2022). Guan et al. (2021) argue that policy uncertainty is negatively correlated with business model innovation. They note that the positive effects of policy uncertainty are typically felt by state-owned companies and companies with little financial constraints. By contrast, family firms are characterized by a more intense presence of financial constraints and private ownership.

3.7.2 The effect of government subsidies on family firm innovation

The positive effects of policy uncertainty on family firm innovation are heavily influenced by government subsidies. Thus, academic circles are increasingly focusing on the impact of government subsidies on family firm innovation, which tends to be heterogeneous. Zhao & Wu (2022) divide the impact of government subsidies into two segments:

i. Influence effect

Zhao & Wu (2022) further divide the influence effect of government subsidies on family firm innovation into the following contrasting perspectives:

- Incentive view: Innovation may be increased through government subsidies and in line with this view incentive effect is linked to the scale of the subsidies received by a company (Zhao & Wu, 2022). In fact, research on Chinese, German, and Italian businesses shows that companies that receive government subsidies have a greater patent application rate compared to those who do not (Yang et al., 2019; Bronzini & Piselli, 2016; Alecke et al., 2012).
- Inhibition view: Government subsidies can encourage incentive distortion through rent-seeking behavior and lead to unreasonable innovation structure caused by excessive investment. Moreover, the government cannot ensure that its subsidies are allocated to innovation activities due to a lack of effective tools to monitor subsidized companies. Therefore, in line with this view government subsidies inhibit innovation (Zhao & Wu, 2022).
- Nonlinear view: The relationship between business innovation and government subsidies follows an inverted U-shaped curve. While moderate subsidies significantly spur innovation, excessive subsidies discourage the innovation of family firms (Zhang & Sun, 2018).
- Irrelevance view: Since government subsidies are characterized by lax constraints, the irrelevance view indicates that subsidies do neither exhibit a significant incentive nor inhibition effect on business innovation (Zhao & Wu, 2022).

ii. Influence mechanism

Zhao & Wu (2022) organize the influence mechanism of government subsidies on family firm innovation into the following four parts:

- Alleviation of financing constraints: Financing constraints that tend to be prevalent among family-owned companies act as inhibitors of investment in innovation because companies need sustained capital investment for innovation. By contrast, government subsidies boost the willingness of family firms to innovate by alleviating their financial constraints. Therefore, government subsidies have the power to significantly improve innovation quantity and quality in family-owned companies. The rationale for such an innovation boost is also that by alleviating their financial constraints through government subsidies, family firms are better able to partner with universities and research institutes concerning R&D. However, due to inadequate supervision of funds and asymmetric information between the government and companies, family firms still do not have proper incentives to invest government subsidy funds in innovation.

- Improvement of risk-taking ability: The greater a company's risk-taking ability, the better the willingness of the company to innovate. Since family firms are likely to possess a lower willingness to innovate, government subsidies may help increase innovation input by reducing the profit risk, especially in the case of family firms. The reason for such a positive effect is that government subsidies allow innovative companies to share risk, and thus, make up for the losses in case of innovation failures, which stimulates innovation. Furthermore, government subsidies act beneficially to family firms as they help them obtain more detailed information on policy changes, thereby enhancing the accuracy of judgment on future profit risk. Another explanation is that government subsidies give a resource guarantee for the sustainable development of companies and lower the profit risk by mitigating the influence of economic cycles and other unexpected events. Consequently, lower the profit risk encourages family firms to invest in R&D with boldness and confidence. Yet, due to the limited amount of government subsidy funds, the quantity and quality of innovation are not significantly increased.
- Introduction of state-owned shares: Government subsidies encourage innovative companies to launch state-owned shares, thereby impacting their innovation behavior. For family firms especially, the launch of state-owned shares may enhance their willingness to invest in R&D, thereby stimulating innovation activities of family firms. The explanation might be that confidence of family firms is changed by government subsidies. Moreover, state-owned shares help establish a relationship between the government and family firms, thereby providing a guarantee for a family firm's patent application and authorization that in turn improves innovation quality. State-owned shares help increase the innovative resources of family firms, which leads to improved innovation input.
- Efficacy of high-quality signal: Another positive effect of government subsidies is that they imply a high-quality signal of the company to the financial market and external investors, which in turn boosts innovation (Zhao & Wu, 2022).

3.8 The Slovenian government's public incentives for family firm innovation

Innovation and innovation culture are key factors for the success of any firm, not just family-owned ones. Development of new technologies, short product life cycles, and increased global competition elevate the importance of innovation, not just for the future growth and development of companies, but also for the country in general. Family firms are especially important in this regard since they constitute approximately 80 percent of all the companies in the Slovenian economy (Letonja et al., 2021).

In Slovenia, less than 40 percent of companies are innovative (i.e., 77,000 companies). According to the latest available data from the Statistical Office of Slovenia, half of these companies are innovative in both the technological and the non-technological areas, slightly less than a third of these companies are innovative in the way that they introduced a technological innovation, and the remaining 20 percent of the companies introduced a non-technological innovation. The share of innovation-active companies in Slovenia is higher among large companies, which is not a common characteristic of family-owned firms. Moreover, Slovenian companies registered for manufacturing activities with NACE code C are likely to be more innovative compared to companies operating in other industries. Europe ranks Slovenia as a moderate innovator and the Global Innovation index marked Slovenia as the 33rd county in the world in 2022 (Sektor za inovacije, 2023).

While innovations contribute greatly to solving key social challenges, environmental issues, safety, the aging population, challenges connected to human health, etc., they are characterized by large investments, and consequently, high risks. Since the Slovenian government acknowledges the importance of innovation for the sustainable development of the county, it actively promotes innovation in various ways including vouchers, public tenders, tax relief for investments in innovation, through the provision of a supportive environment for innovative companies, and more (Sektor za inovacije, 2023). More specifically, the Slovenian government provides the following incentives for R&D investment and business innovation:

Slovenian SMEs can apply for intellectual property protection voucher in the maximum amount of 9.999€, which is intended to co-finance eligible costs. Voucher funds can be used for the preparation of patent applications, model and trademark applications; registration and/or maintenance and/or dissemination of applications abroad; and translation of applications. Slovenian Intellectual Property Office marks a positive trend of such applications, which shows that Slovenian companies are increasingly realizing the value of innovation. A county's optimal management of intellectual property contributes to making the company an industry leader, enhancing the visibility of products and services, building a competitive advantage over competitors, ensuring freedom of operation on the market, and opening new business opportunities (Sektor za inovacije, 2023).

On a yearly basis, the Slovenian government publishes various public tenders including public tenders intended for co-financing of financial input for R&D and other business innovation projects such as JR RRI NOO, JR DEMO PILOTI NOO, P2, etc. Such public tenders are organized by the Ministry of the Economy, Tourism and Sport's public institutions SPIRIT Slovenia Business Development Agency and Slovene Enterprise Fund that aim to support Slovenian SMEs through financial incentives to reduce gaps in access to finance (Sektor za inovacije, 2023).

Tax relief is intended for successful Slovenian companies that operate with a profit. Based on this incentive, companies that engage in risky R&D activities and unpredictable exploitative innovation can reduce their tax. Therefore, companies can plan R&D expenditures to achieve two effects simultaneously – competitive advantage resulting from R&D activity while having a smaller tax base. The tax relief amounts to 100% of investments in R&D activities. The net effect is determined by the tax rate that is dependent on the legal form, i.e., a natural or legal person. Most tax reliefs are claimed by companies, for which the tax rate is currently 19%. Tax reliefs connected to R&D can be claimed by taxpayers following the tax procedure with the Financial Administration of the Republic of Slovenia under the Corporate Income Tax Act (ZDDPO) or the Income Tax Act (ZDoh) (Sektor za inovacije, 2023).

Finally, the Slovenian government supports innovation through a supportive environment designed for innovative companies. The key Subjects of the Innovative Environment (SIO) include incubators, technological parks, and similar organizations that promote the establishment of new companies, especially companies that contribute to improved competitiveness, value-added, and regional development. In addition to SIOs, the Slovenian government established SPOT points that provide free services to companies in various phases of development (Sektor za inovacije, 2023).

The government’s measures to promote R&D and innovation are aimed at priority areas determined by the Slovenian Smart Specialization strategy that is founded on three pillars: digital economy, circular economy, and Industry 4.0. Within the three pillars, there are nine priority areas: smart cities and communities, smart buildings and timber chain homes, networks for the transition to the circular economy, sustainable food, sustainable tourism, factories of the future, health and medicine, mobility, and materials (Sektor za inovacije, 2023).

3.9 The importance of family firm innovation for the national economy

The positive effect of innovation on companies’ performance spills over to the national economy. Thus, policymakers and researchers are increasingly focusing on the link between innovation, entrepreneurship, and regional outcomes. Since family firms are the most prevalent organizational form that constitutes the backbone of the economy in most countries, their innovation is especially important for the economy at large (Maradana et al., 2017). Namely, they constitute approximately 80 percent of the Slovenian economy. In this subchapter, the thesis will look beyond the impact of innovation on the company’s performance and focus on the linkage between innovation and national economic growth.

Family firms play a linking role between family, market, and society through which they are able to sustain regional development. Family-owned companies strive to attain regional socio-economic development by pursuing innovation activities aimed at building strong human and financial capital. The unique social capital of family firms consists of trust and trust-based networks that promote knowledge-sharing and collaboration, thereby increasing innovation. Evidence from European countries shows that innovation influences the economy in multiple areas, such as economic growth, global competitiveness, quality of life, employment, trade openness, financial systems, infrastructure development, and hence produces high economic growth in the country (Maradana et al., 2017).

In fact, for each one percent increase in the value of investments in innovation, economic growth measured by national turnover increases by 0.25 percent (Gherghina et al., 2020). R&D expenditures and technology investments that are both connected to innovation provide premises for establishing progress and competitiveness, and through them sustainable economic growth. In addition, an increase in the number of patents by ten per 100,000 people leads to a 3.4 percent growth in gross domestic product (GDP) per capita (Isaeva et al., 2021).

The explanation for increased economic growth lies in innovation contributing to higher productivity. As productivity grows, more goods and services are produced and consumed, and the economy grows. When new technologies are applied, they can substantially increase productivity by generating a higher level of output with the same input. A higher amount of goods and services enabled by increased productivity stimulates business profitability and wages. Higher wages then translate into consumers having more money to spend, thereby stimulating the economy. Simultaneously, companies become more profitable which allows them to invest and hire new employees (European Central Bank, 2017).

The influence of a family firm on the national economy is greater for bigger firms. Increasing the number of employees by one percent will accelerate economic growth measured by a national turnover by 1.11 percent. The higher the number of employees, the more knowledge in the company. Strong educational background of the workforce leads to increased investments in the research area, the creation of new products, and facilitates access to stock markets, which in turn stimulates the development of private and public sectors while improving the living conditions of the general population (Gherghina et al., 2020).

4 METHODOLOGY

The fourth chapter represents the methodology of the research. The chapter starts by outlining the research plan including the purpose of the research, goals of the research, and research questions. The chapter continues by describing the sample and explaining the method of primary data collection and method of the data analysis.

4.1 Research purpose and goals

The purpose of the research is to explore the key challenges and opportunities for innovation in family-owned companies in Slovenia. The focus of the research is contextualization and understanding of expert opinions and perspectives rather than generalization across the entire population of Slovenian family firms. More specifically, the thesis includes four research goals. First, the research aims to explore what drives and hinders innovation processes in Slovenian family firms. Second, it intends to establish what is the role of the Slovenian government regarding family firm innovation. Third, the research aims to describe the impacts of innovation on the business performance of Slovenian family firms and determine which business functions are most affected by innovation. Fourth, it aims to understand the influence of the family on innovation in Slovenian family firms by considering corporate strategy and family-specific resources such as unique human capital. In line with the goals of the research, the thesis aims to answer the following key research questions:

- Which are the key drivers accelerating innovation in Slovenian family firms?
- What are the main obstacles to a faster innovation process in Slovenian family firms?
- What is the role of the state in family firm innovation in Slovenia?
- How does innovation impact business performance in Slovenian family firms?
- How does the family influence innovation in the company?

The methodology of the exploratory research can be structured into two parts – primary and secondary research. Both primary and secondary data sources are used to explore innovations within family firms in Slovenia. The literature review involves collecting secondary data from scientific papers, official statistics, reports by official bodies such as European Bank and European Commission, etc. Secondary data, qualitative as well as quantitative, is then analyzed to develop a detailed theoretical background of the topic that serves as a base for the primary research. The empirical part of the thesis relies on the primary research involving semi-structured in-depth interviews with Slovenian family firm representatives from different industries to reach a heterogeneous sample. Interviews are transcribed and analyzed using thematic analysis.

4.2 Method of primary data collection

To investigate innovation among family firms in Slovenia, in-depth interviews were chosen as the method of primary data collection. Since the thesis delves into respondents' subjective interpretations, I draw heavily from the in-depth interviews, which are well suited for the study of subjective impressions and social processes. In-depth interviews are appropriate when one wants to obtain detailed information regarding one's thoughts, opinions, and preferences or wants to explore new challenges in-depth. They represent one of the key methods of data collection in qualitative research (Legard et al., 2003). The interviews were conducted in a semi-structured manner with the aim to obtain qualitative data to better understand the complexity of the topic. The interviews consisted of open-ended questions and were structured in the following topics: innovation in the company and industry, drivers and inhibitors of innovation, policy perspective, impact on the business and strategy, human resources, and family influence (see Appendix B and C).

From March 2023 to October 2023, I conducted nine interviews with Slovenian family firm company representatives. Participants included top management family members and family members of first and second generations. The interviewees were predominantly contacts and referrals. Interviews were conducted in-person on the companies' premises. They lasted up to an hour and were recorded with the participant's permission. I tried to reach a heterogenous sample containing nine family firms from different industries and of various sizes. Heterogenous sampling can be defined as non-probability sampling technique (Alvi, 2016). Because such elite populations are difficult to find, the companies in the sample were chosen using purposive and non-probability sampling. Since the aim of the research was not a generalization of the findings across the population of the Slovenian family firms but rather contextualization and a deeper understanding of opinions, purposive and non-probability sampling were appropriate. I conducted interviews until information redundancy was achieved. This implies that participants were interviewed until their accounts no longer added anything new to the study (Legard et al., 2003).

4.3 Sample description

Key sample characteristics are listed in Table 7 (next page). Table 7 consists of two parts – information about the family company and information the interviewee(s). I included companies from various industries and of different sizes in my sample to achieve a heterogeneous sample. All the interviewees questioned are upper-level employees and work in the family company for quite some time. Therefore, they know it in detail.

To divide family firms into small, medium, and large, I leaned on the Companies Act (ZGD-1) classification. This classification looks at average number of employees in the financial year, net turnover, and value of the company's assets. To be classified into small, medium, or large category, a company must meet two out of three criteria. A small company has 50 employees or less, a net turnover less than eight million euros, and asset value of less than four million euros. A medium-sized company has up to 250 employees, a net turnover of less than €40 million, and asset value of less than €20 million. Beyond that a company is classified as large (Zakon o gospodarskih družbah, 2006).

Table 7: Sample characteristics

Information about the company			**Information about the interviewee(s)**		
Company	**Industry**	**Size**	**Position**	**Gender**	**No. years in the firm**
Company 1	Printing	Small	Founding co-owner and CEO (1^{st} generation)	Male	31 years
			Manager (2^{nd} generation)	Male	6 years
Company 2	Security systems	Small	Founding owner and CEO (1^{st} generation)	Male	23 years
Company 3	Retail of grocery goods	Small	Founding owner and CEO (1^{st} generation)	Male	33 years
Company 4	Wholesale of pharmaceutical goods	Medium	CEO (2^{nd} generation)	Female	17 years
			Head of Operations (non-family)	Female	10 years
Company 5	Wholesale of construction materials	Large	Board of directors	Male	18 years
Company 6	Manufacture of special machinery	Medium	CEO (2^{nd} generation)	Male	10 years
Company 7	Manufacture of bread, fresh pastry goods, and cakes	Large	CEO (2^{nd} generation)	Male	28 years
Company 8	Manufacture of perfumes and toilet preparations	Medium	Founding owner and CEO (1^{st} generation)	Female	34 years
Company 9	Wellness	Medium	CEO (2^{nd} generation)	Female	31 years

Source: Own work.

4.4 Method of data analysis

After conducting each interview, it was transcribed. The transcripts were later used to summarize findings with the help of thematic analysis using Microsoft Word. Thematic analysis is a method commonly used for analyzing qualitative data and is applied to a set of text such as interview transcripts. Researchers use such analysis when they try to understand individual's views, opinions, knowledge, experiences, or values. Such analysis identifies and interprets patterns of meaning, i.e., themes that come up repeatedly. There are two approaches to thematic analysis: (i) inductive approach that allows the data to determine themes, or (ii) deductive approach where researchers come to data with predetermined themes that they expect to find there based on theory (Clarke & Braun, 2017).

I used a deductive approach to thematic analysis. First, the process of data analysis included familiarization with the data collected. I transcribed audio, read through text while taking initial notes. Second step involved coding. Coding of general information found in transcripts was done by marking the most important parts of the text and assigning codes to describe content. The codes provided a condensed overview of focal points and common meanings that repeat through the data. Third, the focal parts of a transcript received a dimension notation or theme that described such parts in detail. Fourth step was to review themes. I returned to the data set and compared themes against it to come up with the final list of themes that were also supported by theory. In addition, narratives, impressions, and case-specific information were applied to portray the best business practices and lessons learned from the interviewed family firms.

5 FINDINGS

The fifth chapter presents the findings of the research. The chapter is organized around the key themes that arose during theoretical overview and in-depth interviews with family firm representatives. Findings are grouped into the following seven themes: The characteristics of innovation in the industry and family company, motives and drivers of innovation, obstacles to innovation, perception of the role of the state, impact of innovation on business performance and strategy, HR challenges and family influence.

5.1 The characteristics of innovation in the industry and family company

Family companies are almost unanimous when it comes to the importance of innovation. "If a company wants to keep up with the times, innovation is absolutely necessary." (Interviewee 1, Company 4) Family firms face specific challenges that lead them to pursue innovation in order to survive. To face today's volatile environment dictated by trends such as digital transformation, sustainability, servitization, and tight labor market, family companies must innovate. "In recent years, innovation has been connected to a lack of employees. […] To face the shortage of skilled workers, one must be innovative in ways how to attract new employees. Work must be as easy as possible for them. This is where innovation comes in." (Company 7)

In connection to innovation, technological progress was frequently mentioned. Company 9 indicated that its current process innovations are largely enabled by digitalization. Namely, innovation can be achieved through digitalization, automation, and implementation of Industry 4.0 technologies. Family-owned firms are trying to find the best solutions to optimize their products and business processes with the aim of building sustainable competitive advantage. Such solutions yield not only product and process innovation but also business model innovation. "We have been implementing innovations into the work environment and business model, thereby improving the work climate, and making it easier to work with external partners. The constant implementation of innovations is therefore very important to us." (Interviewee 1, Company 4) Similarly, Company 1 and Company 2 mentioned that the reason why they underwent a business model change was indeed technological progress. Following technological progress, the former went from screen printing to digital printing and the latter underwent a digital transformation from analog security systems to digital security systems that are remotely operated using mobile apps.

Yet, Company 4 warns that businesses must approach the implementation of innovations very holistically, for a business model change to be successful. "We approached the innovation [information technology system] by first listing all the work processes in the firm. After we acknowledged all the processes that take place in all departments, we looked for solutions. We asked ourselves what could be improved. Then we identified the aspects of digital transformation we should engage in to achieve such improvements. We went into the project of digital transformation very comprehensively, thinking about what each aspect of the company would gain. That's why no business function was left behind." (Interviewee 1, Company 4)

Company 6 stresses that continuous innovation of its products oftentimes requires changes to complimenting software, which translates into the need for improved software, advanced machines, robots as well as skilled employees. Moreover, it mentioned that the industry is moving towards servitization, i.e., a transformational process whereby a business shifts from a product-centric business model to a service-centric business model. Company 6 strives to develop advanced machines from which it receives much information. Big data then enables predictive maintenance of its machines and allows the company to sell maintenance services with a higher value-added. Company 7 reminds that innovation has great power. "Innovation is a tool that can guide society in a completely different direction." (Company 7)

While some family firms approach innovation very proactively by generating their own innovations such as road spreaders, vegan meat products, binding methods, B2B and B2C digital platforms, etc., other family-owned firms rely on supplier-generated innovations and follow their technological progress. They blame conservative customers and characteristics of traditional and mature industries for the absence of their own innovations in recent years.

A lot depends on their position in the supply chain, the size of the company, and leadership attitude toward innovation.

Surprisingly, many family-owned firms do not employ an internal R&D department or an employee responsible for R&D. Instead, they tend to rely on supplier research or outsource R&D activities to external subjects such as business and financial consultants, other specialized companies, universities, etc. Company 1 noted that its customers represent a source of innovation. "Customers turn to us when they want to create something new." (Interviewee 1, Company 1)

5.2 Motives and drivers of innovation

The family-owned companies do not greatly differ in their motives and drivers of innovation. Traditional or non-traditional industry, all family firms want to improve some aspect of their business through innovation. While there are some differences on the individual company level, the majority of the interviewed family firms exhibit a combination of reactive and proactive motives and drivers that lead them to pursue innovation. "The main motive for innovation is to be better than you were a year ago and more advanced than the competition. We are largely driven by the exploration of the unexplored, by the discovery of novelty, and by changes." (Company 9)

Frequently it was mentioned that industry pressure acts as one of the key reactive drivers of innovation in family firms. A volatile business environment caused by global events such as the Covid-19 pandemic and industry trends like sustainability, digitalization, and the tight labor market has important implications for innovation in family firms. Persistent sustainability trend gave rise to green innovations. For example, as a response to such a trend, Company 7 developed its own recyclable plastic wrapping and launched a line of vegan products that pose a lesser burden on the environment in terms of water usage and greenhouse emissions. Similarly, Company 9 engages in innovation due to the persistent sustainability trend. Through marketing innovation, Company 9 is trying to make sustainable packaging look attractive even though it is not shiny and new.

Moreover, digitalization can help reduce the adverse effects on the environment. Since technological progress is faster than ever before, most family companies listed technological progress as an important driver of innovation. "Implementation of new technologies is very important because it allows you to improve [product and service] quality and speeds up production processes. With that, you get better value added and can negotiate a better price point, thereby maximizing your profit." (Interviewee 1, Company 1) Among others, technological progress stimulated innovation in Company 7. To optimize business processes, they digitalized the process of transferring information, developed a packaging machine that simultaneously counts products and implemented the first burek wrapper robot.

In connection to industry pressure, the interviewed family firms often pointed at their suppliers, competitors, and customers as drivers of innovation. Family companies positioned lower in the supply chain (e.g., Company 2, 3 and 5) state that they closely monitor the development and technological progress of manufacturers. Company 2, for instance, highlights the power and strict requirements of suppliers in its industry. To survive, it must innovate. “We are long-term oriented. Namely, we conduct long-term deals with our buyers and suppliers who generate innovations all the time, and thus, we need to update our systems to stay in business.” (Company 2) Similarly, Company 1 put emphasis on survival as one of the key motives for innovation. Since survival and long-term orientation are deeply embedded in family firms’ strategy, they represent an important factor in stimulating innovation.

Furthermore, competitor pressure plays an important role in the innovation process of family firms. “Competition is beneficial. It forces you to be in step with the times.” (Company 2) Company 4 highlights that competitor pressure often shows in the form of price competition. Therefore, companies must pursue innovation to lower costs and remain competitive. “Due to innovation, we remain competitive.” (Company 8). Company 7, for instance, lowered costs through product innovation. More specifically, it developed a vegan meat substitute that is cheaper than meat. Likewise, Company 6 stated that money savings are what drives innovation. To outperform competitors, businesses may pursue either a low-cost strategy or a differentiation strategy. Both require innovation. “Find something that other competitors don’t have.” (Interviewee 1, Company 1)

Innovation in family firms is not driven only by suppliers and competitors but also demanding customers. In fact, the interviewed family-owned firms often mentioned customer pressure to be a key driver of innovation. “Customers want high-quality products as fast as possible.” (Interviewee 1, Company 1) Company 2 finds itself in a similar situation. When its customers demanded mobile apps, where they can access different systems simultaneously, they had to innovate to satisfy the customer’s needs.

By contrast, Company 9 brought up a different insight: „Customers do not think one step ahead in terms of what would be better for them, that’s why we [companies] have to.” Company 4 indicated that deep knowledge of the market and its customers is what sparks innovation. In line with such a view, Company 9 developed a magnesium supplement that consumers do not have to mix with water. It did not develop a to-go solution because is customers would demand a simpler way of consuming magnesium but because the company was thinking one step ahead. “We try to be one step ahead. Always.” (Company 9)

Not only customer satisfaction but also employee satisfaction is considered an important driver of innovation by family firms. Company 7 notes that innovation is needed to make work easier for the employees, thereby improving their satisfaction. Family firms also consider the tight labor market as a driver of innovation. In fact, the inability to find skilled workers boost innovation in the sense of finding innovative ways how to attract employees, one of which is making work easier for the employees, or simply replacing them with machines. Family firms often have no other choice but to automate their processes since they encounter skills shortages. For example, Company 7 cannot find bakers and lower-skilled production workers. To overcome the challenge, it innovates largely through automation and digitalization.

Not all motives for innovation are reactive in nature. “The driver of innovation is also the realization that there is still room for improvement.” (Company 3) Many family-owned firms are aware that long-term competitive advantage is not feasible without innovation. Company 8 realizes that competitive advantage is only possible through innovation and cutting-edge products. Similarly, Company 4 engages in innovation activities with the aim of realization of long-term competitive advantage, higher efficiency, lower costs, and time savings. Company 7 also realizes that innovation builds competitive advantage and brings profit while lowering costs, for instance, via vegan products. Company 5 reveals that the reason why they innovate is largely associated with scalability and productivity improvements as innovations bring economies of scale along with cost-effectiveness. In Company 3, innovation is a direct response to the question how to work less and earn more. “What drives us is the desire to make progress, to improve the satisfaction of our clients, and increase efficiency, which then translates into the financial aspect.” (Company 3)

5.3 Obstacles to innovation

No matter the industry in which a family company operates, it all boils down to available resources for investment in innovation. While in theory employees are often listed as important enablers of innovation, they represent the biggest challenge for family companies. “It’s always people.” (Company 6)

Family-owned companies struggle to find candidates with sufficient skills, especially lower-skilled workers, for which they criticize the Slovenian schooling system. Not only the lack of adequately skilled employees but also their upskilling and reskilling poses a challenge that holds back innovation. “People hold back the innovation process as it is in our nature to resist change.” (Company 7) Namely, reluctance to change was one of the most frequently mentioned inhibitors of innovation in family companies. “Technology is often accompanied with reluctance [of the employees].” (Company 9) While Company 5 sees the root cause of the challenge in its relatively old employees that are slow learners, Company 3 detects a lack of interest among employees. “The fact that employee does not pose questions is a huge red flag for me. Not asking questions shows a lack of interest. One cannot know everything. Therefore, one must be proactive. That's how innovation occurs.” (Company 3) To battle reluctance to change, family firms advise offering some kind of motivation to the employees but more about it in the Chapter 5.6 HR challenges.

Additional challenges that Company 3 encountered were disloyal employees that were stealing from the company and a lack of managerial experience. The owner of Company 3 noted that he as CEO does not posess the skills required to be managing multiple grocery stores at once and had to close one store down. A similar situation occurred in Company 2. As the number of employees grew, harder it became to hold meetings, including meetings regarding innovation. It used to conduct meetings concerning innovation each week, now it does it monthly.

Since innovation is often associated with high investment costs, the available budget was often considered as an obstacle for innovation in family-owned firms. Company 1 complained about the price of new machines, whereas Company 2 mentioned limited financing options. Not limited in the sense of not meeting the set conditions to qualify for them, but limited because family business owners are not prepared to consider them due to their risk aversion. “I am not the kind of person that takes risks related to external financing. In fact, in all the years of running my business, I have taken just a 5,000€ bank loan and to this day I didn’t spend even a euro of that loan.” (Company 2) The reason behind the reluctance to accept external funding lies in the high risk connected to innovation endeavors. “Not all innovations come to life, those that do not, create a tremendous minus.” (Company 7) The owner of Company 2 does not want to endanger the survival of the firm, and thus, the financial situation of the family. He avoids putting his family in debt at all costs, even at the expense of innovation and benefits resulting from it.

Company 8 also mentioned risk an important factor inhibiting innovation. The company dwells upon an innovation because it does not know whether its customers would adopt it. Company 9 stresses that the fear of innovation failure should not discourage companies from pursuing innovation: “What’s important is that there are more successful innovations than unsuccessful ones. If one is afraid that the launched product won’t be a success, one will achieve nothing. Thinking every product is going to sell well is an absolute illusion.”

Furthermore, the inability to see immediate results does not act in innovation’s favor. Only time shows which innovation ought to be successful. Company 4 highlighted another barrier to innovation – lack of time. The development and implementation of innovation is a time-consuming process. Company 4 described the effect of seasonal work on innovation. In periods of high workload, Company 4 pushes innovation lower down the line of priorities due to lack of time. By contrast, when the Covid-19 pandemic hit, the workload was reduced, and the company seized the opportunity to engage in innovation activities. All aspects of the business, all business departments, and all employees were included and actively participated in the innovation process because they had the time. Such increased focus on innovation resulted in a new information technology system and digital transformation of the entire company. However, they are expecting the results of their past innovation endeavors to show first in 2023. Similarly, Company 5 noted that the development of a B2B platform took them approximately 2 years. Company 6 indicated that it often relies on the state’s help to bring innovation to life. However, getting funds from the state is again a time-consuming process that slows down innovation.

While demanding suppliers represent an important driver of innovation, they can also represent an obstacle to innovation. Company 4 indicated that during the Covid-19 pandemic, lack of certain inputs was what was pausing innovation. Lack of inputs and poor deliverability was largely caused by supply chain disruptions, which slowed down the innovation process in the family firm. In addition, Company 2 stressed that the municipality may act as an obstacle to innovation. It told a story about how they wanted to build a shop based on the principle of McDrive, but the major decided to rather put a well-known international retailer's store at the location. For this reason, Company 2 postponed its innovation plans for a decade. Now, Company 2 is again in talks with the mayor and considering moving forward with the innovation.

Although many family firms' representatives were reluctant to speak about intra-family conflict, it was apparent that family conflict slows down innovation in family firms to some degree. "Of course, there is conflict because this is a family company!" (Company 7) For example, the reason holding back the innovation of Company 7's business model through the online selling of pastry products is indeed family conflict. Similarly, Company 8 notes that sometimes it can be hard for family members to reach a consensus among, that is why they fund new startups to bring innovation to life. More about family conflict is included in Chapter 5.7 Family influence.

5.4 Perception of the role of the state

The previous two subchapters focused on drivers and hinderers of innovation in family-owned firms. The results presented in this section will help determine what role the state plays in the innovation process of family firms and whether it fits among the drivers or inhibitors of innovation. Family firm representatives strongly emphasized the need for the state to promote innovation. Yet, it seems as if the Slovenian government is not doing enough. "If you continue to wait for the state [to stimulate innovation], you will not go far." (Company 8) To this end, suggestions for policymakers are made to further stimulate innovation.

The main conclusion on the policy perspective that can be drawn from the interviews is that the state plays a mixed role in family firm innovation. The state promotes innovation through subsidies, vouchers, loans, grants, and other state-funded projects. In fact, many family companies frequently apply for the state's aid. For example, Company 4 got a grant from the state for the development of its internal information system application. Even though Company 4 is a medium-sized company, it could not afford to proceed with such an innovation without the help of the state. Similarly, Company 6, which has much experience in applying to public tenders, states that subsidies offered by the state motivate it to pursue innovation. Yet, before applying a company must first generate an innovative idea. "The government plays no role in innovation if a firm does not have an innovative idea."

(Company 3) Company 4 adds that the Slovenian government is already putting in much more effort to stimulate innovation in companies compared to other Balkan countries.

However, family firms criticized the process of applying for state-funded projects, which is slow due to high amounts of bureaucracy. To stimulate innovation, Company 3 advises lowering the amount of bureaucracy needed to apply to public tenders concerning innovation. “If the state would reduce the bureaucracy connected to state-funded projects, more innovations would occur.” (Company 3) Family companies classified under the NACE code G complained about the non-inclusivity of public tenders as there are poor options for wholesalers and retailers. Namely, wholesalers and retailers are often listed as an exception, receiving worse financing conditions at public tenders compared to companies operating in other industries. Therefore, to promote innovation, Company 5 advises against preferential treatment of companies from specific industries. It suggests policymakers to make public tenders more inclusive for companies operating in different industries.

When asked about the drivers of innovation, legislation changes were frequently mentioned by the family firms. Company 2 believes that the state is promoting innovation by tightening the legislation. The legislation affects the type of technologies used and directs what innovation is even feasible to pursue. “Tightening of legislation works to our benefit. Security systems such as fire alarms are not only obligatory but are also becoming more comprehensive due to increased regulation. Consequently, our sales are growing.” (Company 2)

Yet, other family-owned companies disagree. Policy uncertainty connected to a high speed of adoption of new legislation prevents companies to allocate funds to innovation activities as they are unable to make long-term plans. “If the tax tension would be reduced and tax laws would not be changed constantly, it would be easier to plan for what innovations to invest in. Yet, we must deal with a great degree of policy uncertainty regarding taxes and tax reliefs on an annual basis.” (Interviewee 1, Company 1) Similarly, Company 9 stresses that policy uncertainty cuts back innovation. “The state should foster a supporting business environment. Policy uncertainty involving constant changes to legislation such as tax-related changes is extremely burdensome for businesses. Imagine playing a game where the rules of the play keep changing constantly. Companies must operate in such an environment on a day-to-day basis. What a handicap for business innovation! Not having a business environment, where rules of the operation are clear is very bad, especially for the companies from traditional industries.” (Company 9)

In connection to tax laws, Company 4 suggests higher tax reliefs to boost innovation activity among companies, whereas Company 2 and 9 suggest lower income tax to stimulate the employees to generate more innovative ideas. “To further increase innovation, I recommend lowering income taxes, so that employees could be stimulated through bonuses. Instead, the country takes away that bonus through taxes.” (Company 2)

Similarly, Company 7 identified policy uncertainty as a barrier to innovation. Constantly changing legislation is challenging not only due to the inability to make a long-term plan but also because statutory acts that guide companies are often missing. When asked about suggestions for policymakers, Company 7 pointed at the EU as the place where the change should start. “To start with, the state, and EU, should establish a clear long-term strategy to define the path, where we [companies] want to go. Currently, the state and the EU are adopting legislation on the spur of the moment without sufficient scientific support. Only when the strategy is clearly defined, we can identify which innovations are needed to achieve the goals of the strategy, otherwise, we are just kicking at the darkness. For such innovations, the state should then offer some kind of monetary support.” (Company 7)

Many family company representatives criticized the state’s schooling system. Company 9 touched upon the non-effective collaboration between companies and Slovenian universities: **“**Unfortunately, the collaboration between companies and universities in Slovenia remains poor. Scientific research is conducted for the sake of the research itself instead of focusing on the companies’ needs.” Company 9 urges the policymakers to make universities more connected to the business world by focusing on what the companies need, e.g., hands-on experience, specific professions, etc. “Science and business world should unite.” (Company 9)

5.5 Impact of innovation on business performance and strategy

Innovation can impact business performance greatly. Yet, the effect of innovation can be both positive and negative. The following section describes the effect of family firms’ past innovation endeavors on their business performance and strategy.

One of the major positive impacts of innovation is shown in increased efficiency and productivity, particularly on the production floor. Family firms often stated that business functions production and operations are most impacted by innovation. Some family firms that have adopted a digital marketing strategy saw important impacts of innovation also in their marketing and sales department. Company 8 indicated that its marketing and sales department was heavily affected by innovation. “Innovation directly impacts production as well as marketing and sales department. If we produce more in a shorter period, we must sell more and quicker.” (Company 8) Company 9 emphasized the importance of marketing innovation, more specifically, packaging innovation. Its strategy is to innovate the packaging of outdated existing products to make them more attractive to customers and re-sell them. “Every product has a lifecycle. Growth, maturity, and decline. To polish existing products and re-sell them, we need to engage in product innovation.” (Company 9)

While some family firms do not see impacts of innovation in departments other than operations, all family firms agree that innovation should affect all business functions and departments. Company 4 emphasizes how important it is to implement innovation systematically so that no department is left behind. The finance department is one department that is usually forgotten when engaging in innovation activities. Yet, when Company 4 developed a new information technology system with the help of state grants, it also considered the finance department. More specifically, it digitally transformed the way they do financial analysis. Financial analysis used to be performed in Excel, but after the integration of the new technology system, it became automated. Past innovation endeavors of Company 9 also included the finance department. After the finance department automation, less employees were required.

Company 4 highlighted several other aspects of how innovation positively impacts business performance. Namely, its new information technology application allows for high-quality data to be available in real-time, higher accuracy and precision of data, as well as more accurate stock-level planning. Company 5 explains that innovation made it easier to predict stock fluctuations through improved transparency, which in turn boosts the accuracy of stock keeping and enables shorter delivery periods. Company 1 brought up the fact that innovations may also help reduce mistakes, whereas Company 9 experiences higher safety levels due to better control enabled by innovation.

In addition, family firms frequently mentioned increased speed and faster production processes as a direct consequence of their past innovation endeavors. For example, Company 2 told a story about how security systems used to be connected using cables and now they are wireless, which allows for remote maintenance that drastically reduces the time needed to repair or set up a system. Since technological progress reduced the need for fieldwork, the company can now serve more customers in one day, thereby improving productivity, efficiency, and in the end also profit. Similarly, Company 3 and Company 5 see the impact of innovation in better performance evident in the higher number of sales.

When asked about the impacts of innovation on family firm performance, one of the common answers was higher employee satisfaction and a better work atmosphere. Company 7 and 9 emphasized that process innovation makes work easier for employees as they reduce workload as well as physical burden. Not only do innovations ease the work of internal employees, but also external partners. Company 5 mentioned that an innovation prevented employee stealing, which was a challenge faced also by the Company 3. Yet, Companies 1, 5, 7, and 9 stressed that innovation may take jobs as they now need fewer employees. From a firm perspective, having a lower number of employees translates into lower costs. Though lower costs can be achieved otherwise. For example, Company 7 pursued product innovation which cut costs while making their products more sustainable. Moreover, Company 1 stressed how innovation improves product quality. Innovation can make products more durable, thereby increasing their life span and making an important step towards sustainability. Company 2, for instance, mentioned the increased durability of batteries. Improved product quality corresponds to higher customer satisfaction while having great benefits for the environment.

While many family firms notice no negative impacts of their past innovation endeavors, others record some negative impacts of their innovation pursuit. “Not all innovation is good.” (Company 7) Since innovation often requires high investment costs, it may to high indebtedness that can endanger a family firm's survival. Therefore, Company 1 and Company 7 warn not to pursue too many innovation projects simultaneously. “It’s better to pursue an innovation project on a smaller scale and fewer things at once.” (Interviewee 1, Company 1) “Oftentimes innovation occurs at a pace that is too fast. History shows evidence against the rapid implementation of too many innovations at the same time. “ (Company *7)* Company 2 adds that rapid changes in technology caused by innovation drastically increase training costs of its employees.

When delving into the topic of the impact of innovation on strategy, we found very different results. “Having a good strategy is half of the success.” (Company 3) Some family firms include innovation in their strategy and conduct meetings on innovation topics on a monthly basis, whereas other companies do not at all. Surprisingly, Company 9 stated that every meeting of its top executives involves innovation. Family members of Company 9 hold meetings on innovation topics every three weeks and call them The Development Meetings. In Company 1, meetings are held monthly to brainstorm and generate innovative ideas. Company 2 conducts meetings related to technological progress, equipment, and innovation projects on a semi-monthly basis. Company 7 includes innovation in its corporate strategy and promotes it with rewards. A leading employee’s responsibility is to generate innovation, non-leading employees are not expected to generate innovation but if they do they receive monetary rewards. By contrast, Company 3 does not hold innovation meetings and pushes innovation somewhat lower down the line of priorities as it believes that a strategic location is key. “If you [retailer] do not have the top location, you have to pursue an innovation strategy to drag customers into your store and sell products before they expire.” (Company 3) Similarly, Company 5 which is a wholesaler has no meetings on innovation topics.

5.6 HR challenges

“The roof [of the company] is the hardware, whereas employees are the software.” (Company 3) Human resources represent enablers of innovation. In fact, employees must present adequate skills and competencies to create a business environment, in which innovation flourishes. When researching the topic of human resources, I found that the most pressing challenge Slovenian family companies encounter is the reluctance to change among employees, especially older ones. While employees are growing older, the pace of technological development is getting faster, creating a skills gap that makes employees hesitant to change. Family companies found various approaches to solve reluctance to change among their employees. “You must identify employees that are passionate about change and innovation, usually those are younger employees. With their help you can then motivate other employees to adopt the innovation.” (Company 7) Company 9 adds to that end: “The majority of employees must embrace the change, while the remaining few must adapt. The only thing that is important is that employees who are excited about the change prevail."

Furthermore, Company 4 stresses the importance of including employees in the decision-making. Including employees in the decision-making helps them feel like an important part of the team, and thus, less reluctant to change. When making decisions, the CEO takes all employees on board so that they feel connected to a new project and feel that their opinions matter. In Company 4, employees are involved in projects to the extent they take the project as their own, making implementing innovations much easier. Company 6 adds that employees must see the value in the new technology, i.e., how it will make their work easier. Otherwise, the implementation will not succeed. Company 9 gave a similar suggestion on how to motivate employees to embrace change: "Companies need to motivate employees [to welcome the changes]. If employees are involved, if they are aware of the goal of the change and understand its purpose, then they exhibit a positive attitude towards change. Of course, there will be some employees who dislike novelties, especially technology changes are usually accompanied by reluctance. When employees realize what's in it for them, they feel at ease with the change." Moreover, Company 3 solves the reluctance to change among employees through compensation linked to performance, which motivates the employees to get acquainted with the new technology.

The second challenge family-owned companies frequently mentioned was the inability to get skilled workers. "We are searching for employees that have a lot of innovative ideas which they can communicate well. […] An ideal employee asks a lot of questions." (Company 3) Company 1 and Company 7, for instance, are unable to get skilled production workers. Company 1 sees the reason for the lack of employees in the Slovenian schooling system that is not focused enough on hands-on experience. "We do not get candidates equipped with appropriate knowledge and skills out of the schooling system." (Interviewee 1, Company 1) Currently, the labor market might be scarce, but without skilled employees, innovation cannot occur. Therefore, Company 7 stresses the importance of finding innovative ways to attract young talent. Otherwise, it must replace the unfilled job positions with robots and machines, for which again innovation is needed.

If a company is unable to find the right candidate for the job or automate the job position, it must splurge on training, re-skilling, and up-skilling of employees. Since schools do not provide companies with candidates equipped with the right skill set, a knowledge transmission challenge emerged. Consequently, older generations in Company 1 must educate younger generations, which is often challenging and expensive. Moreover, the interviewed family firms frequently highlighted the importance of continuous learning for the success of the entire company. "Continuous learning of the employees is of utmost importance. Employees must grow even if they stay at the same position the whole time." (Company 9) Company 9 emphasized that continuous learning is especially necessary for small firms since the employees cannot upgrade to higher level positions because such positions do not exist in a small-sized company.

To enforce continuous learning among employees, family companies offer mandatory educational seminars for the employees to better cope with new technologies, machines, and practices. To ensure sufficient skills of its employees, Company 7 organizes two educational seminars whenever they introduce a new machine. The first seminar takes place once they get a new machine to learn its basic functions and features. The second seminar takes place approximately two years after the introduction of the machine or when the employees already know how to use the machine well. The purpose of the second seminar is to reinforce knowledge and to learn the advanced features the machine has to offer. After two years employees do not feel overwhelmed by the machine anymore and are more open to getting to know its advanced features.

Since Company 2 is a representative of well-known brands, it deals with a great amount of supplier pressure. The demanding big brand suppliers require Company 2's employees to be properly qualified for work to prevent showing manufacturers in a bad light. Therefore, employees must undergo training organized by the supplier twice a year. In addition, Company 2 organizes internal training to ensure sufficient skills of its employees on an annual basis. Internal training is followed by an internal exam and involves the topic of novelties such as new technologies and new legislation. Company 6 has another strategy to ensure continuous learning among its employees. Namely, the company conducts a survey on an annual basis, in which it asks employees what skills they would like to learn. Company 9 conducts educational seminars every 14 days, it holds workshops on digitalization topics and collaborates with the University of Ljubljana, which then provides tailor-made trainings for them.

In addition, family firms face specific HR challenges. While employing individuals equipped with sufficient knowledge and skills is important, family companies place great value on the fit with the family. In fact, Company 3 stated that its number one criterion for choosing job candidates is family fit. "First and foremost, a candidate has to fit well with the family." (Company 3) At the expense of preferring certain individual characteristics that assure family fit, family-owned firms are often prepared to overlook higher-skilled candidates, which leads to a skills shortage. Nepotism is obviously present among family firms. For example, managerial positions are occupied by relatives rather than by highly skilled individuals. Owner of the Company 3 admitted that he does not poses sufficient skills to be running more shops at once and had to close one down.

5.7 Family influence

"Family businesses are funny." (Company 2) Strong family ties may lead to family firms making decisions contrary to business logic. Showing a preference for family members and candidates that fit well with the family over highly skilled individuals is just one example that hurts innovation activity in family firms. The following section deals with the influence a family has on a daily business and the challenges that arise consequently. After presenting family-specific challenges, the section provides some best-practice advice to help aid them.

Family firm representatives frequently mentioned that only some members are included in R&D decisions. The reason of such exclusion of family members from decision-making may be associated with the dictatorial leadership style of certain family owners. “My leadership style is dictatorial; I make important decisions. […] My opinion is superior.” (Company 2) Similarly, owner of the Company 3 realizes that his dictatorial leadership style stands in the way of succeeding generations being fully included in the decision-making. In Company 1, by contrast, every family member that shows interest in innovation activities is included in important decisions regarding R&D. However, Company 1, Company 5, and Company 6 note that family members often exhibit different levels of interest, which may lead to conflict.

“Family is constantly involved in the business which can take its toll on the relationships between family members.” (Interviewee 1, Company 1) The interviewed family firms mentioned various reasons for conflict among family members including jadedness and weariness of the aging owner, financial reasons, online selling, etc. For example, Company 7 cannot move forward with implementing innovation as siblings do not agree on whether innovation makes sense for their company. While managing conflict is challenging in every firm, this is especially true for family-owned companies, where the lines between work and home are often blurred. “Conflicts are problematic because we [family] bring them home. […] We bring conflict home as we cannot say work is work and home is home. We are involved in work 24/7. […] Even when we sleep, we dream about what more we could do to contribute to the business.” (Interviewee 1, Company 1) Company 9 warns: “Conflict should never be on a personal level.”

However, most family firms view intra-family conflicts as positive because they occur when they seek business improvement. “Conflict is not bad.” (Company 7) Intra-family conflicts generally occur on a monthly basis or less and are solved through conversation. “There is little conflict between me and my father. When we disagree, we conduct research on the matter together and in the end decide based on what is best for the company.” (Company 5) Company 7 has another good practice to help remedy conflict. They put in place an intra-family contract that regulates decision-making and covers the rules of operation. If there is conflict, the contract binds family members to act in accordance with it. The contract identifies the decision-making processes and rights.

Company 4 encounters little conflict. Company 4’s CEO believes that part of the reason for such absence of frequent conflict can be attributed to her father’s ability to let go of the company. Her father, who is still a co-owner of the company, does not interfere with her decision-making ever since the succession occurred. CEO of Company 4 shared some thoughts on the succession process. “I am grateful for my father that showed me the way. I could always count on him and ask him questions regarding the business. When I needed his help with the company, he was always here. As years pass you become more experienced and build your own team which you can count on. Since my father saw positive results after I took over the company, he stopped interfering." (Interviewee 1, Company 4) Succession planning is one of the biggest challenges family firms must face and ability of the owner to let go of the family company plays an important factor in successful transition. In fact, only a few family-owned companies successfully pass the company on to the next generation. Company 4 underwent a successful transition onto the next generation many years ago. "Quite some time passed before my father trusted me with his business. Passing a big company onto your child is difficult, you want to pass it on to somebody with sufficient skills to run it successfully." (Interviewee 1, Company 4) Employing managers with sufficient skills is crucial for stimulating innovation in family firms while enhancing their prosperity.

Currently, the owner of Company 2 is preparing his son for succession. First, he provided his son with detailed knowledge about every aspect of the firm with hands-on experience through fieldwork. After five or six years he became accustomed to the entire work process and product and service offering. Recently he has withdrawn his son from fieldwork and in the next 4 or 5 years he will focus on teaching his son management skills, leadership, communication with suppliers, and include him in important decisions such as decisions about R&D. CEO of Company 4 shared some further details on how her father prepared her for succession. "My father included me in the business since I was young, I was always by his side. During the summer holidays, I started to work at the company. I got acquainted with every business function because I had to work on each job position for some time, from storage units to administration, everything. That's how I got to know every employee in the company and what is expected from them. When I climbed the ladder to a leadership role in my father's company, I did not have the feeling that I am the boss now because I have already worked in every job position in the company. Even today I like to discuss important matters with my employees. I know more about one topic and my colleagues know more about other topics. We share our experiences, that's how we grow." (Interviewee 1, Company 4)

6 IMPLICATIONS AND RECOMMENDATIONS

The sixth chapter offers important implications and recommendations for family firm owners as well as for policymakers to boost innovation activity among family firms. In the chapter, one can additionally find a summary of key research findings, research limitations, and suggestions for future research.

6.1 Summary of main findings

The research presents objective and subjective insights on innovation in family firms. The key findings of primary research are summarized in Table 8 and are grouped into the following categories: Innovation in the industry and company, drivers of innovation, obstacles for innovation, policy perspective, impact on business performance and strategy, HR challenges, and family influence.

Both theory and owners of family firms in Slovenia agree that innovation is of great importance for the company. While there might be some differences between traditional versus non-traditional industries, all family firms encounter predominantly and excessively positive effects of their past innovation endeavors. Positive impacts of innovation on family firms include increased productivity, fewer errors, higher customer and employee satisfaction, better transparency, contribution to sustainability, etc. Based on the interviews, the highest impact of past innovation endeavors is still felt in the operations department despite family owners being aware that innovation should concern all business functions. In the past years, innovation is increasingly changing the marketing and sales department in family firms as well.

Drivers for innovation can be reactive or proactive, but most family firms utilize a combination of both. While competitors, customers, and suppliers play an important factor that is driving innovation, Slovenian family firms realize that without innovation the realization of competitive advantage is not possible. In theory, employees are often listed as enablers of innovation. Yet, the interviewed family firms list employees and their reluctance to change as the number one inhibitor of innovation in their firms.The research shows mixed results when it comes to the role of the state in family firm innovation. On one hand, the state stimulates innovation through state-funded projects such as subsidies, vouchers, grants, and loans. On the other hand, it inhibits innovation due to high levels of bureaucracy, policy uncertainty, non-inclusive public tenders and inefficient schooling system that does not ensure sector skills that would promote innovation.

Since family firms are unique, they encounter specific opportunities and challenges when it comes to innovation. Not all family members are included in important R&D decisions due to dictatorial leadership style of the owners or because they show different levels of interest in the family company. Consequently, conflict between family members can arise. Conflict is not bad, yet it may evolve into an extremely challenging and delicate matter as the lines between work and home life are blurred, especially in family firms. In addition, family firms deal with specific HR challenges in connection to innovation such as lack of skilled employees and reluctance to change among employees. The presence of nepotism dictates common practices like selection of the employees, which may lead to skills shortages. One of the greatest challenges every family firm face is succession planning, where the ability to let go of the family company plays a vital role for future innovation.

Table 8: Summary of key interview findings

Question	Key highlights
Innovation in the industry and company	• High importance of innovation • Digitalization and sustainability trend • Supplier-generated innovations • Product, process, and business model innovations • Conservative customers • Differences between traditional and non-traditional industries
Drivers of innovation	• Reactive motives (competitor pressure, customer pressure, supplier pressure, technological progress, legislation changes, scarce labor market, etc.) • Proactive motives (competitive advantage, efficiency, productivity, scalability, etc.)
Obstacles for innovation	• Reluctance to change among employees • Lack of skilled workforce • High risk associated with innovation • Risk-aversion of owners • High investment costs • Lack of time • Intra-family conflict • Nepotism
Policy perspective	• Mixed role of the state in the innovation process • Bureaucracy in applying for state-funded projects • Preferential treatment of specific sectors at public tenders • Policy uncertainty prevents companies from making long-term plans involving innovation • The educational system should adapt to ensure sector skills
Impact on business performance and strategy	• Positive impacts (increased productivity, fewer errors, transparency, employee satisfaction, sustainability etc.) • Negative impacts (indebtedness, high employee training costs, etc.) • Greatest impact on operations • Innovation included in corporate strategy to some extent
HR challenges	• Lack of adequately skilled employees • Reluctance to change among employees • Internal and external training programs • Knowledge transmission between generations
Family influence	• Some family members included in R&D decisions • Dictatorial leadership style of the elder generation • Siblings showing different levels of interest in the family company • Family conflict monthly or less • Conflict solved through conversation • Succession planning

Source: Own work.

6.2 Limitations of the research

Limitations are present both in theoretical and empirical part of the research. Only a few scientific articles were published on the topic of family firm innovation in Slovenia specifically. The reason for such lack of research on the topic of family firms can be attributed to the fact that Slovenia used to be a socialist country. In former socialist countries such as Slovenia research on family firms remains in its infancy as private companies were outlawed under the socialist system. Therefore, the theoretical background of the thesis including the definition of a family-owned business relies predominantly on foreign articles from different geographical areas without considering cultural differences that might apply. Understanding of the concept of a family-owned company might differ across regions.

Furthermore, the purpose of the research was to gain a deeper understanding of the black box of family companies. The research focused on subjective perception and opinions of few family firm owners. While the results are insightful, they cannot be used for generalization across the entire population of family firms in Slovenia, let alone other countries, because a small sample might limit the results. A bigger sample of family companies would provide a greater diversity across different types of companies, various types of industries, etc.

6.3 Suggestions for future research

Since one country cannot be used as a reference for another country, researchers ought to conduct further analyses focusing solely on Slovenian market, taking into account cultural differences and varying understanding of the concept family company.

To gather more quantified information on the topic of innovation in family firms, qualitative interviews should be combined with quantitative surveys. Moreover, non-family firms could be also included in the research to ensure better comparison. Future research would bring value if it would systematically divide family-owned companies by specific similarities. For example, by reference to the industry in which they operate, their position in the value chain, their size, according to similar business models, etc. During the research, it became apparent that all the mentioned factors play a significant role in the innovation of family-owned firms.

6.4 Implications for family-owned companies and policymakers

The research raised some important implications for family-owned companies. Family firm owners and managers play a very important role in family firm innovation. A push for innovation mostly results in favorable outcomes for the company. Understanding the factors that prevent or slow down innovation in family firms allows family owners and managers to maximize the potential sustainable competitive advantage a family-owned business may offer. Enhancing their understanding is key as it gives them cues regarding what to look out for. By contrast, realizing the family company's strengths and what role they play in innovation enables family owners and managers to notice more opportunities for innovation. Nevertheless, innovation is a tool for reaching business goals.

Not only family owners and managers but also policymakers play an important part in family firm innovation. My research provides relevant implications for policymakers. Family firm innovation plays a crucial role for the growth and development of the national economy. Thus, Slovenian policymakers should play a bigger role when it comes to stimulating innovation in family firms. Firstly, they should find ways to limit policy uncertainty which will allow family firms to make long-term plans that involve innovation. Secondly, they should make public tenders more inclusive and simplify the application process. Currently, the process for applying for state-funded projects is cumbersome, especially for smaller companies that family firms tend to be. Public tenders involve much bureaucracy, for which time and money is needed. Thirdly, policymakers should adapt the education system by focusing on hands-on experience to ensure sector skills.

7 CONCLUSION

The research contributes to a better understanding of the black box of innovation in Slovenian family-owned firms. The research results are important for entrepreneurship support, the key share of which is represented by family firms, especially smaller ones. Moreover, the research has important implications for family owners and policymakers. Factors hindering family firm innovation are key to boosting our understanding of family firms while aiding family owners and managers to maximize the potential competitive advantage family firms may offer. In-depth knowledge of family firms combined with opportunities and challenges associated with innovation is crucial for future economic growth, which is the goal of every public policy. Since family firms constitute the backbone of the economy, their contribution to innovation has a significant impact on global growth and development. Therefore, policy makers should strive to understand family firms unique pain points to aid them and promote innovation.

Based on nine in-depth interviews with family firm representatives, I find that innovation plays a vital role in family firm survival and success. Through innovation, companies do not only increase productivity, transparency, employee satisfaction and build a sustainable competitive advantage, but also transform their business models and enable the creation of new industries. Thus, the impact of innovation is rather excessively positive than negative, which was confirmed by the interviews.

Yet, there are still opposing views on whether family firms are innovative or not. Family-owned firms face specific opportunities and challenges that lead them to pursue or inhibit innovation. The interviewed family firms exhibit a combination of reactive and proactive motives that open opportunities for innovation, whilst dealing with family-specific barriers to innovation such as nepotism, intra-family conflict, and risk-aversion of the owners. The literature overview and empirical study confirmed that the state plays a mixed role in family firm innovation. The Slovenian government acts as both an inhibitor and a driver of innovation.

In connection to innovation, family-owned companies deal with human resource management practices and challenges in their own unique ways since the family has a significant impact on business. Common challenges of the interviewed family firms that may harm their innovation activity include succession planning, siblings showing different levels of interest, lack of skilled employees due to presence of nepotism, family conflict, etc. To solve such challenges and stimulate innovation, the thesis offers best practice advice from Slovenian family firms directly.

REFERENCE LIST

1. Abudy, M. M. & Shust, E. (2022). *Cost Behavior and Profitability of Family Firms.* http://dx.doi.org/10.2139/ssrn.4160644
2. Afuah, A. N. & Utterback, J. M. (1997). Responding to structural industry changes: a technological evolution perspective. *Industrial and corporate change*, *6*(1), 183-202.
3. Akhter, N., Sieger, P. & Chirico, F. (2016). If we can't have it, then no one should: Shutting down versus selling in family business portfolios. *Strategic Entrepreneurship Journal, 10*(4), 371-394.
4. Alecke, B., Reinkowski, J., Mitze, T. & Untiedt, G. (2012). Does firm size make a difference? Analysing the effectiveness of R&D subsidies in East Germany. *German economic review*, *13*(2), 174-195.
5. Alessandri, T. M., Mammen, J. & Eddleston, K. (2018). Managerial incentives, myopic loss aversion, and firm risk: A comparison of family and non-family firms. *Journal of Business Research*, *91*, 19-27.
6. Al-Tameemi, K., Alshawi, M. & Ahmed, V. (2018). Integrating Business Improvement and Innovation Models: A Step Change Approach for Organisational Performance Improvement. *International Journal of Engineering and Technology*, *7*(4.20), 619-628.
7. Alvi, M. (2016). A manual for selecting sampling techniques in research.
8. Andersson, F. W., Johansson, D., Karlsson, J., Lodefalk, M. & Poldahl, A. (2018). The characteristics of family firms: exploiting information on ownership, kinship, and governance using total population data. *Small Business Economics*, *51*(3), 539-556.
9. Arifi, A. (2018). Conflicts in family businesses: nature and effects. *International Journal of Transitions and Innovation Systems*, *6*(2), 188-197.
10. Astrachan, J. H. & Shanker, M. C. (2003). Family businesses’ contribution to the U.S. economy: a closer look. *Family Business Review*, *16*(3), 211-219.
11. Bach, L. (2010, October). Why are family firms so small?. In *Paris December 2010 Finance Meeting EUROFIDAI-AFFI.*

12. Backman, M. & Palmberg, J. (2015). Contextualizing small family firms: how does the urban-rural context affect firm employment growth? *Journal of Family Business Strategy, 6*, 247–258.
13. Ballal, J. M. & Bapat, V. (2019). How Does Family Succession Impact Family Firms' Innovation?. *Asian Journal of Innovation and Policy*, 8(2), 302-324.
14. Batt, C. E., Cleary, P., Hiebl, M. R., Quinn, M. & Rikhardsson, P. M. (2020). The digitalization of family firms: a research agenda. In A. Calabrò (ed.), *A Research Agenda for Family Business* (pp. 247-260). Edward Elgar.
15. Bena, J., Ortiz-Molina, H. & Simintzi, E. (2022). Shielding firm value: Employment protection and process innovation. *Journal of Financial Economics*, *146*(2), 637-664.
16. Benson B., Crego E. T. & Drucker R. H. (1990). *Your Family Business – A Success Guide for Growth and Survival*. Business One Irwin.
17. Bergfeld, M. M. H. & Weber, F. M. (2011). Dynasties of innovation: Highly performing German family firms and the owners' role for innovation. *International Journal of Entrepreneurship and Innovation Management*, *13*(1), 80-94.
18. Bourdieu, P. (1996). On the family as a realized category. *Theory, culture & society*, *13*(3), 19-26.
19. Breda, T. (2018). Trabajar en empresas familiares. *IZA World of Labor*.
20. Breier, M., Kallmuenzer, A., Clauss, T., Gast, J., Kraus, S. & Tiberius, V. (2021). The role of business model innovation in the hospitality industry during the COVID-19 crisis. *International Journal of Hospitality Management*, *92*, 102723.
21. Broekaert, W., Andries, P. & Debackere, K. (2016). Innovation processes in family firms: the relevance of organizational flexibility. *Small Business Economics*, *47*(3), 771-785.
22. Bronzini, R. & Piselli, P. (2016). The impact of R&D subsidies on firm innovation. *Research Policy*, *45*(2), 442-457.
23. Brynjolfsson, E. & McAfee, A. (2012). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Brynjolfsson and McAfee.
24. Buloga, I., Jukic, I. & Kruzica, D. (2017). Managerial skills: Does family ownership make a difference?. *The Journal of Corporate Governance, Insurance, and Risk Management*, 2, 28-46.
25. Calabrò, A., Vecchiarini, M., Gast, J., Campopiano, G., De Massis, A. & Kraus, S. (2019). Innovation in family firms: A systematic literature review and guidance for future research. *International journal of management reviews*, *21*(3), 317-355.
26. Cesaroni, F. M., Chamochumbi Diaz, G. D. & Sentuti, A. (2021). Family firms and innovation from founder to successor. *Administrative Sciences*, *11*(2), 54.
27. Chandy, R. K. & Prabhu, J. C. (2010). Innovation typologies. In J.N. Sheth & N.K. Malhotra (eds.), *Wiley international encyclopedia of marketing* (p. 1732). John Wiley & Sons.

28. Chirico, F., Gomez-Mejia, L. R., Hellerstedt, K., Withers, M. & Nordqvist, M. (2020). To merge, sell or liquidate? Socioemotional wealth, family control, and the choice of business exit. *Journal of Management, 46*(8), 1342-1379.
29. Christensen, C. M. (1997). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Harvard Business Press.
30. Clarke, V., & Braun, V. (2017). Thematic analysis. *The journal of positive psychology*, *12*(3), 297-298.
31. Comin, L. C., Oro, I. M. & Carvalho, C. E. (2022). Family involvement and innovation: a proposition for studies. *Revista Brasileira de Inovação*, *21*.
32. Comino-Jurado, M., Sánchez-Andújar, S. & Parrado-Martínez, P. (2021). Reassessing debt-financing decisions in family firms: Family involvement on the board of directors and generational stage. *Journal of Business Research*, *135*, 426-435.
33. Davila, T., Epstein, M. & Shelton, R. (2012). *Making innovation work: How to manage it, measure it, and profit from it*. FT press.
34. Deloitte. (2016). *Next-generation family business: Evolution, keeping family values alive.* https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/strategy/deloitte-uk-family- business-nextgen-survey.pdf
35. De Massis, A., Rondi, E. & Appelton, S. W. (2022). Innovation in Family Business. In *Oxford Encyclopedia of Business and Management*. Oxford University Press.
36. Donckels, R. & Fröhlich, E. (1991). Are family businesses really different? European experiences from STRATOS. *Family Business Review, 4*, 149-160.
37. Doucet, P. & Requejo, I. (2022). Financing constraints and growth of private family firms: Evidence from different legal origins. *Finance Research Letters*, *44*, 102034.
38. Dow, S. & McGuire, J. (2016). Family matters: A cross-national analysis of the performance implications of family ownership. *Corporate Governance: An International Review*, *24*(6), 584-598.
39. Duh, M., Belak, J., Tominc, P. & Rebernik, M. (2007). Some aspects of business ethics in family enterprises in Slovenia. *Organizacija*, *40*(5).
40. European Central Bank. (2017, 27th June). *How does innovation lead to growth?*. https: //www.ecb.europa.eu/ecb/educational/explainers/tell-me more/html/growth. en.html
41. European Commission. (n.d.). *Family business*. https://single-market-economy.ec.europa.eu/smes/supporting-entrepreneurship/family-business_en
42. Fernández, Z. & Nieto, M. J. (2005). Internationalization strategy of small and medium-sized family businesses: Some influential factors. *Family Business Review*, *18*, 77-89.
43. Finance. (2021, 30th March). *Seznam 30 naj slovenskih družinskih podjetij.* https://akademija-finance.si/seznam-30-naj-slovenskih-druzinskih-podjetij/
44. Freije, I., de la Calle, A. & Ugarte, J. V. (2022). Role of supply chain integration in the product innovation capability of servitized manufacturing companies. *Technovation*, *118*, 102216.
45. Gallo, M. A., Tapies, J. & Cappuyns, K. (2004). Comparison of family and nonfamily business: Financial logic and personal preferences. *Family Business Review, 17*, 303-318.

46. García-Quevedo, J., Segarra-Blasco, A. & Teruel, M. (2018). Financial constraints and the failure of innovation projects. *Technological Forecasting and Social Change*, *127*, 127-140.
47. Gherghina, Ș. C., Botezatu, M. A., Hosszu, A. & Simionescu, L. N. (2020). Small and medium-sized enterprises (SMEs): The engine of economic growth through investments and innovation. *Sustainability*, *12*(1), 347.
48. Girotra, K. & Netessine, S. (2014, July-August). *Four Paths to Business Model Innovation*. https://hbr.org/2014/07/four-paths-to-business-model-innovation
49. González, M., Guzmán, A., Pombo, C. & Trujillo, M. A. (2013). Family firms and debt: Risk aversion versus risk of losing control. *Journal of Business Research*, *66*(11), 2308-2320.
50. Gottardo, P. & Moisello, A. M. (2014). The capital structure choices of family firms: Evidence from Italian medium-large unlisted firms. *Managerial Finance*, 40(3), 254-275.
51. Guan, J., Xu, H. & Huo, D. (2021). Economic policy uncertainty and corporate innovation: evidence from China. *Pacific-Basin Finance Journal, 67,* 101542.
52. Guedes, M. J., Patel, P. C., Kowalkowski, C. & Oghazi, P. (2022). Family business, servitization, and performance: Evidence from Portugal. *Technological Forecasting and Social Change*, *185*, 122053.
53. Handler, W. C. (1989). Methodological issues and considerations in studying family businesses. *Family business review*, *2*(3), 257-276.
54. Hansen, C. & Block, J. (2020). Exploring the relation between family involvement and firms' financial performance: A replication and extension meta-analysis. *Journal of Business Venturing Insights*, *13*, e00158.
55. Hatak, I., Kautonen, T., Fink, M. & Kansikas, J. (2016). Innovativeness and family-firm performance: The moderating effect of family commitment. *Technological forecasting and social change*, *102*, 120-131.
56. Hiebl, M. R. (2013). Risk aversion in family firms: what do we really know?. *The Journal of Risk Finance,* 14(1), 49-70.
57. Heider, A., Hülsbeck, M. & Schlenk-Barnsdorf, L. (2022). The role of family firm specific resources in innovation: an integrative literature review and framework. *Management Review Quarterly, 72*(2), 483-530.
58. Horbach, J. & Rammer, C. (2022). Skills shortage and innovation. *Industry and Innovation*, *29*(6), 734-759.
59. Isaeva, A., Ishnazarov, A., Shamsiyeva, F., Tosheva, S. & Khachaturov, A. (2021, December). Does Innovation Promote Regional Economic Development? Evidence for Countries in Europe and Central Asia. In *The 5th International Conference on Future Networks & Distributed Systems* (pp. 698-701).
60. Jansen, K., Michiels, A., Voordeckers, W. & Steijvers, T. (2022). Financing decisions in private family firms: a family firm pecking order. *Small Business Economics*, *61*(4), 1-21.

61. Jassawalla, A. R. & Sashittal, H. C. (2002). Cultures that support product-innovation processes. *Academy of Management Perspectives*, *16*(3), 42-54.
62. Kabir, M. N. (2019). Innovation. In *Knowledge-Based Social Entrepreneurship. Palgrave Studies in Democracy, Innovation, and Entrepreneurship for Growth*. Palgrave Macmillan.
63. Kalali, N. S. (2022). Entrepreneurial orientation in family firms: the effects of long-term orientation. In *International Journal of Entrepreneurial Behavior & Research*, 28(7), 1732-1750.
64. Kallmuenzer, A. (2018). Exploring drivers of innovation in hospitality family firms. *International Journal of Contemporary Hospitality Management*, *30*(3), 1978-1995.
65. Kammerlander, N. & van Essen, M. (2017, 25th January). Research: Family Firms Are *More Innovative Than Other Companies*. https://hbr.org/2017/01/research-family-firms-are-more-innovative-than-othercompanie
66. Kearney. (2014, 14th February). *GCC family businesses: unlocking potential through active portfolio management.* https://www.kearney.com/strategy-and-top-line-transformation/article/-/insights/gcc-family-businesses-unlocking-potential-through-active-portfolio-management
67. Keiningham, T., Aksoy, L., Bruce, H. L., Cadet, F., Clennell, N., Hodgkinson, I. R. & Kearney, T. (2020). Customer experience driven business model innovation. *Journal of Business Research*, *116*, 431-440.
68. Kempers, M., Leitterstorf, M. P. & Kammerlander, N. (2019). Risk behavior of family firms: A literature review, framework, and research agenda. *The Palgrave handbook of heterogeneity among family firms*, 431-460.
69. King, N. & West, M. A. (1987). Experiences of innovation at work. *Journal of Managerial Psychology*, *2*(3), 6-10.
70. Kotlar, J., De Massis, A., Frattini, F., Bianchi, M. & Fang, H. (2013). Technology acquisition in family and nonfamily firms: A longitudinal analysis of Spanish manufacturing firms. *Journal of Product Innovation Management*, *30*(6), 1073-1088.
71. Lahovnik, M. (2000). Entwicklungsbedeutung von Familienunternehmen für Transitionswirtschaften. *Journal of East European Management Studies, 5*(3), 288-291.
72. Legard, R., Keegan, J. & Ward, K. (2003). In-depth interviews. *Qualitative research practice: A guide for social science students and researchers, 6*(1), 138-169.
73. Letonja, M., Merkač Skok, M. & Vrdoljak, I. (2021). Innovativeness of Family Businesses in Slovenia: Do Heirs follow the Founders?. *Business Systems Research: International journal of the Society for Advancing Innovation and Research in Economy*, *12*(2), 284-304.
74. Lorenzo, D., Núñez-Cacho, P., Akhter, N. & Chirico, F. (2022). Why are some family firms not innovative?: Innovation Barriers and Path Dependence in Family Firms. *Scandinavian Journal of Management*, *38*(1), 101182.

75. Maier, D. (2018). Product and process innovation: a new perspective on the organizational development. *International Journal of Advanced Engineering and Management Research*, *3*(6), 132-138.
76. Malone, M. (2020, 10th September). Family Or Team: Finding A Company Model That Maximizes Effectiveness. *Forbes.* https://www.forbes.com/sites/forbesrealestatecouncil/2020/09/10/family-or-team-finding-a-company-model-that-maximizes-effectiveness/?sh=66e e0ac46468
77. Maradana, R. P., Pradhan, R. P., Dash, S., Gaurav, K., Jayakumar, M. & Chatterjee, D. (2017). Does innovation promote economic growth? Evidence from European countries. *Journal of Innovation and Entrepreneurship*, *6*(1), 1-23.
78. March, J. (1991). Exploration and exploitation in organizational learning. *Organization Science*, *2*, 71–87.
79. Memili, E., Fang, H. C., Koc, B., Yildirim-Öktem, Ö. & Sonmez, S. (2018). Sustainability practices of family firms: The interplay between family ownership and long-term orientation. *Journal of Sustainable Tourism*, *26*(1), 9-28.
80. Molina-Quintana, B. & Quintana-León, M. B. (2021). Comparison of Family Business Supply Chain Integration of International and Non-International Food Industry Sector of Michoacán. *European Journal of Family Business*, *11*(2).
81. Molly, V., Uhlaner, L. M., De Massis, A. & Laveren, E. (2019). Family-centered goals, family board representation, and debt financing. *Small business economics*, *53*(1), 269-286.
82. Neubauer, F. & Lank, A. G. (1998). *The Family Business: Its Governance for Sustainability*. Macmillan Press.
83. OECD. (2005, 9th September). *Glossary of statistical terms: Innovation*. https://stats.oecd.org/glossary/detail.asp?ID=6865
84. Okoroafo, S. C. & Perryy, M. (2010). Generational perspectives of the export behavior of family businesses. *International Journal of Economics and Finance*, *2*(3), 15-24.
85. Parida, V., Sjödin, D. & Reim, W. (2019). Reviewing literature on digitalization, business model innovation, and sustainable industry: Past achievements and future promises. *Sustainability*, *11*(2), 391.
86. Park, H. Y., Misra, K., Reddy, S. & Jaber, K. (2019). Family firms' innovation drivers and performance: A dynamic capabilities approach. *Journal of Family Business Management*, *9*(1), 4-23.
87. Pukall, T. J. & Calabro, A. (2014). The internationalization of family firms: A critical review and integrative model. *Family Business Review*, *27*(2), 103-125.
88. Qi, Y., Dong, S., Lyu, S. & Yang, S. (2022). Economic policy uncertainty and family firm innovation: evidence from listed companies in China. *Frontiers in Psychology*, 3394.
89. Ramadani, V., Hisrich, R. D., Abazi-Alili, H., Dana, L. P., Panthi, L. & Abazi-Bexheti, L. (2019). Product innovation and firm performance in transition economies: A multi-stage estimation approach. *Technological Forecasting and Social Change*, *140*, 271-280.

90. Ramalho, J. J., Rita, R. M. & da Silva, J. V. (2018). The impact of family ownership on capital structure of firms: Exploring the role of zero-leverage, size, location and the global financial crisis. *International Small Business Journal*, *36*(5), 574-604.
91. Rejeb, N., Basly, S. & Dana, L. P. (2021). *T04_02 Family firms in the digital age. EURAM 2022*. https://www.researchgate.net/ publication/354810044_T04_03_Family_firms_in_the_digital_age_Proponents
92. Robertsson, H., Zellweger, T. & Hsueh, J. (2021, June). *How the world's largest family businesses are proving their resilience.* EY and University of St. Gallen.
93. Rochina-Barrachina, M. E., Mañez, J. A. & Sanchis-Llopis, J. A. (2010). Process innovations and firm productivity growth. *Small Business Economics*, *34*(2), 147-166.
94. Savignac, F. (2008). Impact of financial constraints on innovation: What can be learned from a direct measure?. *Economics of Innovation and New Technology, 17*(6), 553-569.
95. Schaefer, D., Stephan, A. & Solórzano Mosquera, J. (2015). *Innovation capabilities and financing constraints of family firms.*
96. Schumpeter, J. (1934). *The Theory of Economic Development*. Harvard University Press.
97. Sektor za inovacije. (2023, 25th January). *Inovacije.* https://www.gov.si/teme/ inovativnost-v-podjetjih/
98. Sherlock, C., Dibrell, C. & Memili, E. (2022). The impact of family commitment on firm innovativeness: The mediating role of resource stocks. *Journal of Family Business Strategy*, *14*(3), 100523.
99. Singh, S. & Aggarwal, Y. (2022). In search of a consensus definition of innovation: A qualitative synthesis of 208 definitions using grounded theory approach. *Innovation: The European Journal of Social Science Research*, *35*(2), 177-195.
100. Stamm, I. K., Bernhard, F., Hameister, N. & Miller, K. (2022). Lessons from family firms: the use of flexible work arrangements and its consequences. *Review of Managerial Science*, 1-34.
101. Symeonidou, N., DeTienne, D. R. & Chirico, F. (2022). The persistence of family firms: How does performance threshold affect family firm exit?. *Small Business Economics*, *59*(2), 477-489.
102. Twiss, B. (1989). *Managing Technology For Competitive Advantage: Integrating Technological And Organisational Development: From Strategy To Action*. Trans-Atlantic Publications.
103. Umans, I., Lybaert, N., Steijvers, T. & Voordeckers, W. (2020). Succession planning in family firms: family governance practices, board of directors, and emotions. *Small Business Economics*, *54*(1), 189-207.
104. Urabe, K. (1988). *Innovation and Management: International Comparison*. Walter De Gruyter.
105. Villalonga, B., Amit, R., Trujillo, M. A. & Guzmán, A. (2015). Governance of family firms. *Annual Review of Financial Economics*, *7*(1), 635-654.
106. Wagner, V. (1994). *Die Gestaltung der Spitzenorganisation in der grossen Familienunternehmen*. Peter Lang AG.

107. Weimann, V., Gerken, M. & Hülsbeck, M. (2020). Business model innovation in family firms: dynamic capabilities and the moderating role of socioemotional wealth. *Journal of Business Economics*, *90*(3), 369-399.
108. Werner, A., Schröder, C. & Chlosta, S. (2018). Driving factors of innovation in family and non-family SMEs. *Small Business Economics*, *50*(1), 201-218.
109. Yahoo Finance. (2022). *Walmart Inc. (WMT): Income Statement.* Retrieved December 14, 2022, from https://finance.yahoo.com/quote/WMT/financials?p=WMT
110. Yang, X., He, L., Xia, Y. & Chen, Y. (2019). Effect of government subsidies on renewable energy investments: The threshold effect. *Energy Policy*, *132*, 156-166.
111. Zahra, S. A., Hayton, J. C., Neubaum, D. O., Dibrell, C. & Craig, J. (2008). Culture of family commitment and strategic flexibility: The moderating effect of stewardship. *Entrepreneurship theory and practice*, *32*(6), 1035-1054.
112. Zakon o gospodarskih družbah. (2006). Uradni list RS, št. 65/09–uradno prečiščeno besedilo, 33/11, 91/11, 32/12, 57/12, 44/13 – odl. US, 82/13, 55/15, 15/17, 22/19 – ZPosS, 158/20 – ZIntPK-C, 18/21, 18/23 – ZDU-1O in 75/23
113. Zellweger, T. (2017). *Managing the family business: Theory and practice*. Edward Elgar Publishing.
114. Zhang, F. & Sun, W. (2018). The micro-mechanism of government R&D subsidy efficiency: Superposition of incentive effect and crowding-out effect—A theoretical interpretation and inspection. *Public Finance Research*, *4*, 48-60.
115. Zhao, K. & Wu, W. (2022). Innovation of Family-Owned Enterprises and Government Subsidies: From A Policy-Oriented Perspective. *Sustainability*, *14*(20), 13331.

APPENDICES

Appendix 1: Abstract (Slovene)

Družinska podjetja igrajo pomembno vlogo v nacionalnih gospodarstvih po vsem svetu, njihove inovacije pa odločilno prispevajo k pospešeni rasti podjetja kot tudi celotnega gospodarstva. Inovacije v družinskih podjetjih ostajajo dokaj neraziskano raziskovalno področje v Sloveniji zaradi zgodovinskega vpliva socialističnega režima. Pregled tuje literature je pokazal nepopolne in nedosledne rezultate o inovativnosti družinskih podjetij. Cilj magistrskega dela je tako bil raziskati ključne izzive in priložnosti za inovacije v slovenskih družinskih podjetjih, zato sem izvedla poglobljene intervjuje s predstavniki družinskih podjetij v Sloveniji. Raziskava prispeva k boljšemu razumevanju razmišljanja družinskih podjetij in njihovega odnosa do inovacij. Rezultati raziskave nudijo podporo slovenskemu podjetništvu, katerega večinski delež predstavljajo družinska podjetja. Poleg tega raziskava vsebuje pomembne ugotovitve, ki nudijo oporo ne le lastnikom družinskih podjetij, ampak tudi oblikovalcem politik. Rezultati raziskave kažejo, da se slovenska družinska podjetja srečujejo s kombinacijo proaktivnih in reaktivnih motivov, ki odpirajo številne priložnosti za inovacije. Hkrati morajo družinska podjetja premagovati unikatne izzive, ki preprečujejo inovacije. Odkrivanje zaviralcev inovacij je ključno za pospeševanje inovacijskega procesa v družinskih podjetjih, ki navsezadnje podpre tudi gospodarsko rast.

Appendix 2: Interview guide (English)

Innovation in the industry/company

1. How important is innovation for your industry and your company? How important is innovation for new product or service development, process improvements, and new business model development?
2. Do you have an R&D department in your company? Does your firm collaborate with external R&D?
3. Can you give me some examples of innovation in your company that occurred in the past five years? Which innovations made you most proud?

Understanding motives, challenges, and barriers for innovation in the family firm

4. What do you see as the main motives for innovation in your firm? Are the motives for innovation in your family firm mostly reactive (e.g., industry pressure, customer pressure) or proactive (e.g., the realization that long-term competitive advantage will not be feasible without innovation)? Which other factors have fostered innovation in your business?
5. Which factors are stopping or delaying the innovation process (e.g., conflicts, risk aversion, availability of finance)?

Policy perspective

6. Does the state play any role in the innovation process for your firm (e.g., subsidies)? What would you do if you were a minister to boost innovation within companies?

Impact on business and strategy

7. Have you already observed any specific positive (e.g., increased efficiency, effectiveness, or productivity) or negative (e.g., related to your employees) consequences of your past innovation endeavors?
8. Which parts of your business (e.g., which business functions) were most impacted by innovation? Are there parts of your business where less innovation occurs?
9. To what extent has innovation been systematically included as part of your corporate strategy and why? Do you have any meetings concerning innovation? How often?

Human resources

10. What is your HR strategy to ensure adequate competencies that foster innovation (e.g., training)?

Influence of the family on daily business

11. To what extent is the family involved in the daily business? How many family members?

12. Is the family involved in R&D decisions?
13. Are there conflicts between the owners and young family members when it comes to innovative ideas? What is the reason for such conflict? How do you solve such conflicts and how long do you need?

Appendix 3: Interview guide (Slovene)

Inovacije v panogi in podjetju

1. Kako pomembne so inovacije za vašo panogo in podjetje? Kakšno vlogo imajo inovacije pri razvoju novih izdelkov in storitev, izboljšavah delovnih procesov, in razvoju novega poslovnega modela?
2. Ali ima vaše podjetje oddelek za raziskave in razvoj (R&R)? Ali vaše podjetje sodeluje z zunanjimi subjekti, ki se ukvarjajo z raziskavami in razvojem?
3. Naštejte mi nekaj primerov inovacij (manjših ali večjih), ki so se zgodile v vašem podjetju v preteklih petih letih. Na katere inovacije ste najbolj ponosni?

Razumevanje motivov, izzivov in ovir za inovacije v podjetju

4. Kaj so glavni motivi, ki spodbujajo inovacijo v vašem podjetju? Ali so motivi za inovacije večinoma reaktivni/odzivni (npr. pritisk iz panoge, pritisk strank) ali proaktivni (npr. spoznanje, da brez tega dolgoročne konkurenčne prednosti ne bo mogoče doseči)? Kateri ostali dejavniki spodbujajo inovacijo v vašem podjetju?
5. Kateri dejavniki zaustavljajo oz. podaljšajo inovacijski proces (npr. konflikti, možnost financiranja, nenaklonjenost tveganju)?

Družbeno-politični vidik

6. Kakšno vlogo ima država pri inovacijah v podjetjih (npr. subvencije)? Kaj bi naredili vi, če bi bili minister, da bi spodbujali inovacije v podjetjih?

Vpliv na poslovanje in strategijo

7. Ali ste že zaznali kakšne pozitivne (npr. povečana učinkovitost in/ali uspešnost) ali negativne (npr. v povezavi z vašimi zaposlenimi) posledice vaših preteklih prizadevanj za inovacije?
8. Na katere dele vašega podjetja (npr. katere poslovne funkcije) so imele inovacije največji vpliv? Ali obstajajo deli vašega podjetja, v katerih se zgodi le malo inovacij?
9. V kolikšni meri ste inovacije (vaše proizvodnje in nasploh) načrtno vključili v svojo korporativno strategijo? Zakaj? Ali imate sestanke na temo inovacij? Kako pogosto?

Človeški viri

10. Kakšna je vaša kadrovska strategija za zagotavljanje ustreznih kompetenc, ki spodbujajo inovacije (npr. usposabljanje zaposlenih)?

Vpliv družine na poslovanje podjetja

11. Do kakšne mere je družina vključena v poslovanje podjetja na dnevni ravni? Koliko družinskih članov je vključenih?

12. Ali je družina vključena v odločitve o raziskavah in razvoju?
13. Ali v vašem podjetju prihaja do konfliktov med lastniki in mladimi družinskimi člani, ko gre za inovativne ideje? Kaj je razlog za tovrsten konflikt? Kako rešujete tovrstne konflikte in koliko časa potrebujete?