Success factors for corporate-startup collaboration

An exploratory study investigating corporate-startup collaborations in the Austrian financial sector

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Statutory Declaration

I declare in lieu of an oath that I have written this master thesis by myself, and that I did not use other sources or resources than stated for its preparation. I declare that I have clearly indicated all direct and indirect quotations, and that this thesis has not been submitted elsewhere for examination purposes.

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List of Abbreviations

B2B	Business to Business model
B2B2C	Business to Business to Customer model
CVC	Corporate Venture Capital
MVP	Minimum Value Proposition
P2P	Peer to Peer
PoC	Proof of Concept
PSD	Payment Services Directive
R&D	Research and Development

Abstract

Increased demand for innovation from the industry incumbents and rapid growth of the fintech ecosystem has resulted in the emergence of corporate-startup collaborations. Combining the complementary sets of organizational competitive advantages through collaboration has turned into a much more appealing option than stand-alone competition. A growing number of corporate-startup collaborations in the financial services sector evokes increased interest in the topic from the industry experts and academic researchers. However, due to the novelty of the topic, a substantial knowledge gap has been identified with regard to the factors which impact the success of the corporate-startup collaborations. Hence, the purpose of this qualitative research is to explore the success factors for corporate-startup collaboration, through the investigation of the objectives for partnerships, prevalent collaboration models, and key obstacles faced by corporations and startups collaborating in the Austrian financial sector.

A detailed analysis of the existing literature allowed to construct the theoretical framework and develop six major success factors categories, bringing the underlying structure to the research. Further, in order to complement the existing body of literature, the current study employed a cross-sectional research design, using semi-structured interviews with the experts from corporations, startups, and third-party contributors as a data collection method.

Research reveals that at the current stage collaborations in the financial sector have developed in a form of long-term partnerships focused on joint product creation and client-vendor relationships, with strategic objectives of maximizing mutual value proposition behind. While major obstacles faced in the collaboration stem from the industry setting and corporate complexity, key success factors identified by the research participants address issues of the regulatory environment, collaboration structure, and resource base. Research findings show that responsive regulations to the innovation trends and support from third-party organizations are critical for creating a favorable environment and successful collaborations establishment. Furthermore, such factors as top management commitment, structured collaboration process through a separate innovation unit within the corporation, dedicated project owner from the corporate side, and advanced IT infrastructure are considered to be critical success factors for corporate-startup collaboration in the industry.

1 Introduction

1.1 Problem identification and analysis

Over the last decade, the global financial sector has undergone multiple challenges and changes, shaping its modern state. The global financial crisis, changing consumer preferences, digitalization trends, and new ventures emergence caused shifts in the way financial service companies operate and innovate. The changes in the environment require rapid transformation and quick innovation, as traditional incremental change has proven to be not sufficient to sustain growth.

Furthermore, an increasing need for innovation from the corporate perspective is complemented by a thriving startup scene all over the world and, in particular, in Austria. According to the Austrian Startup Monitor, the number of listed startups in Austria has shown a steady 20% annual growth from 2004, reaching 1500 registered startups in 2018 (K. Leitner et al., 2018, p. 10). Moreover, a remarkable growth has been reported in the Austrian fintech scene, which is currently ranking on 16th position among 100 world-leading ecosystems (StartupBlink, 2019, p. 49).

The growing demand for rapid innovation from the industry incumbents and flourishing startup ecosystem create the basis for the new phenomenon – corporate-startup collaboration, which has become the most promising way for fostering innovation. A combination of the complementary sets of competitive advantages and internal deficiencies of both parties through collaboration creates win-win opportunities for partnering sides.

For instance, exploiting startups in the innovation process allows corporations to keep track of the industry trends and integrate disruptive solutions to keep up with the pace of change. On the other side of collaborations, startup benefit from the corporate resources, know-how, established customer base, and an opportunity to scale the business and reach the market (Bonzom & Netessine, 2016, pp. 12–13). Potential benefits gained through collaboration, serve as a powerful motivation for startups to partner with other organizations. Thus, according to the recent Austrian Startups report, 90% of the existing startups in the Austrian scene collaborate with partners on national and international levels (2018, p.11). Furthermore, the survey, organized by the Austrian Startups Monitor project, shows that startups consider large companies as the most attractive collaboration partners since approximately 2/3 of the surveyed founders cooperate with corporations (Austrian Startups, 2018, p.77). Besides, the EU Startup

Monitor report confirms that collaboration between Austrian ventures and incumbent organizations is steadily increasing (Steigertal, L; Mauer, 2018, p. 2).

Following such trends, partnerships between innovative startups and large corporations gain increasing attention in the academic and business world. Furthermore, significant interest in corporate-startup collaborations from the academic side is placed on the partnerships in the financial services sector, particularly. The pace of disruption in the financial industry is rapidly accelerating, and industry leaders expect number and total market value of fintech startups to grow further (Deloitte Research, 2018, p.4). Fintech strengths, such as superior customer experience, agile product development, cost optimization, and improved data management, bring startups to the leading positions in the market segments underserved by the traditional corporates (Capgemini, LinkedIn, & Efma, 2018, p. 10,37).

Hence, even though traditional banks have a competitive advantage, the pressure from emerging and growing fintech startups increases, forcing large corporations towards collaboration (Deloitte Research, 2018, pp.10-12). On the other hand, the disruptive power of fintech startups is limited to their internal capacity and ability to scale without external support. In the majority of cases, fintechs require collaboration for the successful growth – a survey conducted among the FinTech founders reveals that 4/5 consider collaboration as their primary business objective (Capgemini et al., 2018, p. 42).

Even though the topic of corporate-startup collaboration is gaining importance among the experts in the field, young entrepreneurs, and corporate innovation teams, academic research on the matter is lagging behind. Although an extensive literature has been found on traditional approaches to innovation for corporations, innovation through collaboration is not explored enough and requires further investigation. Nonetheless, rising academic interest in the modern approach to innovation has led to a new wave of research on the topic of corporate-startup collaboration phenomenon in the past few years. Previous research mainly focuses on the particular models of corporate-startup engagement, its advantages, and potential benefits.

Several studies are dedicated to typology and models of corporate-startup collaboration. For instance, Wolcott and Lippitz discuss four models of corporate-startup collaboration based on organizational power and capital structure in corporations engaging with startups (2007, pp. 76-80). Further, Chesbrough and Weiblen (2015, pp.70-80) focus on both traditional models of collaboration with startups, such as corporate venture capital and corporate incubation, and new models, which include influence through technology and market access and inside-out platform models. Another study summarizes the five most common types of corporate-startup collaboration based on the type of engagement (Kohler, 2016, p.49). Besides, the most recent study, conducted by Moschner et al., offers a detailed overview of various collaboration models, their advantages and disadvantages, and concise guidance on managing cooperation under a particular model (2019, pp.2-10). Some researchers also address the perspective benefits of corporate-startup collaboration, potential challenges, and the optimal fit between corporations and partnering ventures. For instance, considerable focus has been placed on discussing the advantages of open innovation in collaboration with startups in the study by Chesbrough (2003, pp.34-43).

However, there is limited availability of strategic solutions for successful corporate-startup cooperation in the academic literature. Existing recommendations and guidelines, such as studies by Kohler (2016, p.50-60), Markham et al. (2015, pp.55-59) provide universal solutions, omitting organizational context, the entrepreneurial environment, and positioning of the startup ecosystem, partner’s stage of development and cultural perspective. There has not been done enough research on the factors, which lead to long-lasting partnerships and ensure success for collaborating partners. Furthermore, there has been no academic research conducted on the corporate-startup collaboration phenomenon in the financial sector specifically, investigating the partnerships in such complex industry setting. Hence, one can observe a large gap in the existing knowledge on the success factors for corporate-startup collaboration in general, and in the financial services industry particularly. Moreover, additional research is required to investigate the setting for corporate-startup engagement and its impact on the success of the collaboration outcome.

By examining the context in which startups and corporations can achieve common and own targets and sustain a long-term relationship, researchers can develop more effective collaboration strategies and practical recommendations for future collaborations. Moreover, the research findings might serve as an important learning material for collaboration parties. Understanding the factors and triggers of collaboration success from corporate and startup perspectives is crucial for both partnering sides, as long as it would allow to reduce the failures rate, capital, and human costs and increase chances for a positive outcome of such cooperation. The results of the study are potentially beneficial for government and policymakers in the

Austrian startup ecosystem and financial sector, as the availability of detailed information on collaborations and success factors would allow adjusting law and regulations accordingly, in order to facilitate the growth of the emerging startups, enhance cooperation and boost the economic development of the industry overall.

1.2 Research purpose

Addressing the knowledge gap, outlined in the previous section, the purpose of this qualitative study is to explore the current state and success factors for corporate-startup collaboration in selected companies in the financial sector in Austria. The corporate-startup collaboration is defined as any kind of partnership between startups and corporations, established to reach pre-defined common and individual objectives.

The two underlying central questions and supporting sub-questions that guide the research are:

1. *What is the current state of corporate-startup collaboration in the Austrian financial sector?*
    - *Which collaboration types are prevalent in the companies under the scope of the research?*
    - *What are the strategic motives and objectives behind the collaboration?*
2. *Which factors are considered to be essential for the corporate-startup collaboration success in the financial sector in Austria?*
    - *What are the obstacles and challenges faced by both parties in the collaboration process?*

1.3 Thesis outline

1. Introduction

In the current chapter the research topic and problem are introduced to the reader, highlighting the academic and practical relevance of the study. Following the problem identification and analysis, the research purpose and underlying research questions, guiding the investigation of the central research phenomenon are presented to the reader. The last part of the introduction includes the thesis outline, summarizing the key elements of the main sections of the thesis.

2. Literature Review

This chapter outlines the theories and concepts discussed in the existing literature, which served as a foundation for the research. The theoretical framework described in the chapter presents a collection of major concepts and theories relevant to the research topic, determining the structure of the study. Further, each section of the chapter provides a comprehensive overview of each part of the framework, summarizing the findings from the previous research on the topic.

3. Research Methodology

This chapter presents the objectives behind the research strategy and design choice. Besides, important methodological aspects, such as sampling strategy and procedure, data collection methods, and participant recruitment process are discussed in the chapter. Further, the data analysis process is discussed, highlighting the coding strategies employed in the research. Lastly, the internal validity and trustworthiness of the study are described.

4. Empirical Findings

The key findings of the research, based on the empirical data analysis are presented in this chapter. In the first section, the focus is placed on the present state of the financial sector in Austria and trends shaping corporate-startup collaboration. Further, an overview of the strategic objectives behind collaboration and prevalent models are outlined. The second section presents a summary of experts' opinions on the factors and conditions of successful corporate-startup collaboration. Lastly, critical analysis and comparison of the empirical findings with the previous research and theoretical knowledge are presented under the analysis and discussion part.

5. Conclusion

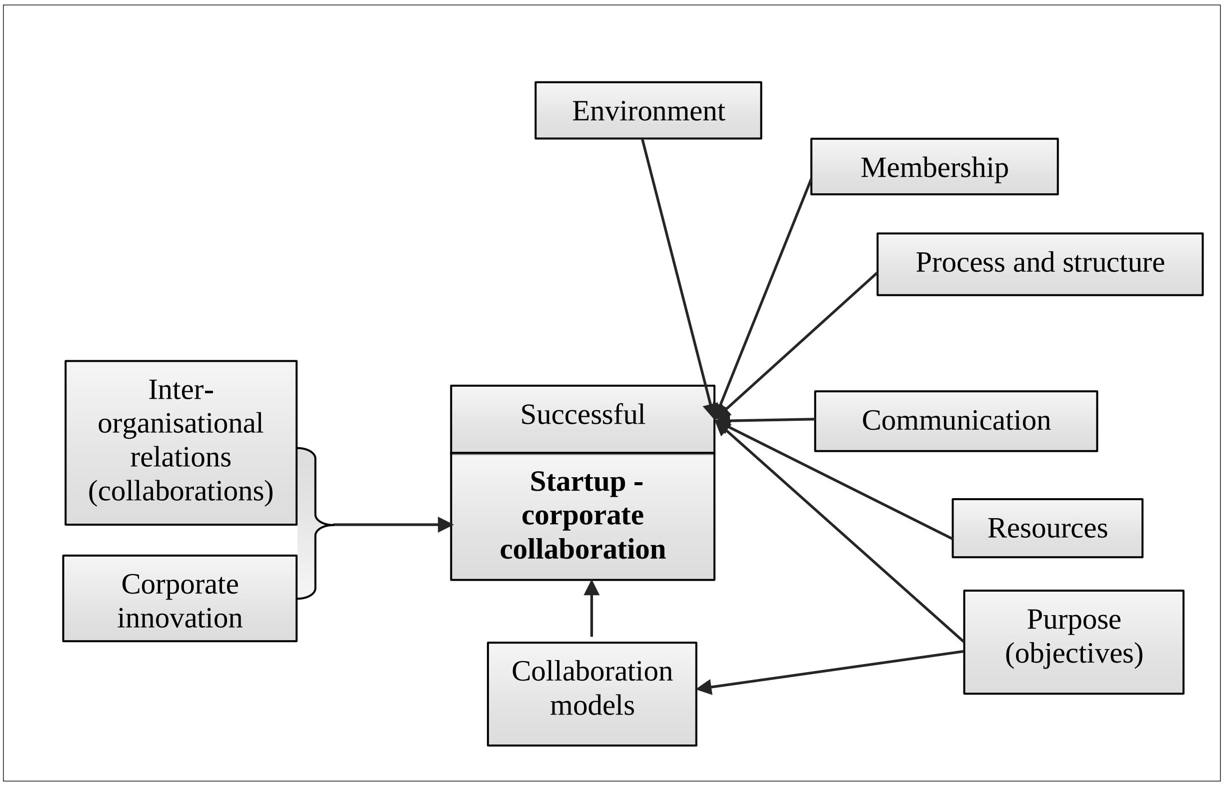
This chapter presents the key findings of the study with regard to the research questions, highlighting the practical implications of the results. Besides, research limitations are examined and presented, followed by the suggestions for future research based on the study findings are presented in the last part of the chapter.

2 Literature Review

2.1 Theoretical framework

Based on the literature review, conducted in the frame of the study, it has been concluded that collaboration between corporations and startups is a comparatively recent phenomenon in the field of innovation and partnerships, and the influencing success factors are not yet well understood and described in the scientific literature. Hence, no particular theories have been developed on the topic, which is reflected in the absence of any theoretical framework, which would comprehensively address the tackle issues examined in the present study. For that reason, the theoretical framework for the current study is constructed based on the combination of the existing theories and previous research findings (Figure 1). The concepts and findings used to establish the course and foundations of the research are described in the following paragraphs.

Figure 1 Theoretical framework for the research



The first part of the conceptual framework is a corporate-startup collaboration itself. The term “corporate-startup collaboration” is often synonymized with “partnerships” and “corporate-startup engagement,” which will be further considered as synonymous terms in the research. Due to the complexity and novelty of this phenomenon, corporate-startup collaboration is mostly viewed by academics from two different perspectives – traditional inter-organizational relationships and new corporate innovation strategy.

Research has primarily approached collaboration generally, as a particular type of inter-organizational relationship (Lotia & Hardy, 2008, p. 366). Corporate-startup collaboration, similarly to supply chain cooperation, resource management partnership is usually referred to as a type of inter-organizational relationship (Aggarwal & Wu, 2019, p. 615). Most studies on collaboration develop theories, where involved parties are collaborating with the aim of joint problem resolution (Bedwell et al., 2012; Thomson & Perry, 2006; Wood & Gray, 1991). However, such theories and models do not take into consideration the nature of collaboration between corporations and startups. In such kind of collaborations, in contrast to traditional ones, the main focus is placed on achieving different individual goals of each party, creating common benefit in the collaboration process (Larkin, M. & O’Halloran, 2018, pp. 6–7). Therefore, corporate-startup collaborations cannot be viewed only through the lens of inter-organizational relationships, and additional perspective is required in order to approach the phenomenon in the course of research in the correct way.

The phenomenon of corporate-startup collaboration was first introduced to the academic world under the umbrella of corporate open innovation strategy by H. Chesbrough (2003, pp. 50–56). Further, the literature on corporate-startup collaboration is developed in the field of corporate innovation, rather than inter-organizational relationships (Connolly, Turner, & Potocki, 2018; Freeman & Engel, 2007; K. H. Leitner, 2014). This can be explained by the nature of such collaborations – they emerged as a response to a fast-changing economy and rising need of corporations to innovate quickly to stand the competition. In the current study, corporate-startup collaboration would be approached with consideration of both perspectives, discussed above, emphasizing corporate innovation.

Further, the theoretical framework includes major collaboration models that are widely used in corporate-startup engagement, described in section 2.2. Considering the different collaboration models is highly important for the investigation of the success factors, since each model has specific objectives behind, level of integration between the companies. Thus, understanding of the nature of collaborations, the process and structure serve as a basis for the success factors analysis.

Lastly, an examination of the success factors for corporate-startup collaboration required the creation of the appropriate matrix to structure the research. Hence, the theoretical framework is comprised of the six groups of the success factors, developed based on the categories presented by Mattessich et al. (2001, p. 14). A comprehensive review of potential success factors, identified in the previous findings is presented in section 2.5

2.2 Collaboration motives and objectives

Compete or collaborate? It is one of the strategic questions on the corporate agenda, as the competition from the startup side is escalating. For the last decade, the researches tried to find the answer to this question, and the majority suggests collaboration as the best win-win solution. Even though corporations have numerous competitive advantages that can be exploited to succeed in a competition against startups, the rising demand for open innovation and collaboration suggests that partnerships open better opportunities for the corporate side than the stand-alone competition. On the other hand, a common belief that high-tech ventures would disrupt the industries and diminish the power of the incumbent players did not realize, while it occurred that startups require corporate partners to offset their weaknesses (Klus, Lohwasser, Holotiuk, & Moormann, 2019, p. 2).

Examples of successful collaborations have proven that the complementary nature of corporations and startups creates a foundation for higher value creation for the companies and the customers than if both parties would have competed against each other. Table 1 presented below gives an overview of the major advantages and disadvantages of collaboration players, which open opportunities for collaboration.

The match between the strengths and weaknesses of corporations and startups has great potential for fruitful partnerships if exploited correctly in the collaboration process (Prats & Siota, 2018, pp. 8–10). Thus, collaboration is a tool to combine the strength of the two sides by leveraging the advantages of both incumbent organizations and utilizing the complementary nature of both sides can be considered as the overall objective behind the collaboration process.

Table 1 Complementary nature of corporations and startups

	Corporations	Startups
Disadvantages	• Structural rigidity • Established culture • Routine & inertia • Cognitive barriers • Lack of creativity • Risk aversion	• Lack of experience • Limited resources (financial, human) • Low customer trust • High customer acquisition costs • Low legitimacy
Advantages	• Economies of scale • Sufficient resources • Large customer base • Established brand name • Wide partner network • Qualified workforce	• Structural flexibility • Agility and speed • Innovativeness • Creativity • Customer orientation • Entrepreneurial mindset

Note: Adopted from Prats & Siota (2018, p.9)

2.2.1 Corporations' objectives

Previous research highlights the need for rapid innovation as the key objective for the corporate side of the collaboration process. Traditional corporations have multiple existing business issues, which have to be resolved through innovation and radical changes (Klus et al., 2019, p. 16). Although corporates undoubtedly have the resources and capabilities for internal innovation, frequently corporate culture and rigidity inhibit the entrepreneurial thinking and innovativeness inside the corporation (Mocker, Bielli, & Haley, 2015, p. 5).

Thus, previous research findings suggest that solving the current business challenges with the help of external partners is considered to be one of the strategic objectives for collaboration worldwide (Open Axel, 2017, p. 6). Outsourcing a particular activity to the startups enables corporations to provide quicker response to the customer needs and reach the desired milestones in a cost-effective way, in terms of physical, human and financial resources (Jung, 2018, p. 293; Klus et al., 2019, p. 16; Larkin, M. & O'Halloran, 2018, pp. 6–7). Startups, frequently having a narrow specialization and one-product offering, can be used by corporations to implement incremental changes in back-end operations, and increase the value proposition directly improving front-end activities (Larkin, M. & O'Halloran, 2018, pp. 6–7).

Besides tackling the existing issues, corporations opt for collaboration with startups aiming to explore and gain insights into the emerging technologies considerably faster than exploiting their resources for R&D (Berger, 2017, p. 4; Klus et al., 2019, p. 16). The joint research conducted by MassChallenge and Imaginatik – well-established innovation scene players has concluded that the vast majority of corporations recognize the exploration of new technologies as one of the primary collaboration objectives (2016, p. 6). Similarly, Clarysse et al. suggest that corporations use different collaboration models as a scouting tool for new technologies (2015, p. 12). Thus, engagement with startups enables corporations to reduce the innovation cycle and stay on top of the market developments alongside keeping efficient asset management (Pioneers.io, 2019a, p. 4).

Collaboration is also considered to be a promising way to enter the new markets, enabling corporations to target new customer segments (Berger, 2017, p. 4; Open Axel, 2017, p. 6; Pioneers.io, 2019a, p. 2). Authors highlight that especially attractive collaboration partners are mature and experienced startups with the developed customer base, which allows corporations to acquire new customer segments in a more agile manner. Further, some authors identify strengthening customer focus among the strategic objectives from the corporate side (Berger, 2017, p. 4; Larkin, M. & O'Halloran, 2018, p. 6; Pioneers.io, 2019a, p. 2). While new ventures emerge on the market in response to the specific customer need, startups are often considered to be more responsive and closer to the customers than corporations. Thus, collaboration appears to be one of the most efficient ways to keep track of the customer trends and deliver an up-to-date product to the market.

Improving a brand perception is one of the side motifs of collaboration. However, it is often considered by corporate strategic units (Berger, 2017, p. 4). Traditional corporations consider collaborations with startups to be an important marketing tool, used to create an innovative image associated with the corporate brand. Companies market the startup partnerships in annual reports, white papers, and press releases, aiming to reposition their brand on the market and reach to the new customer segments (Bannerjee, Bielli, & Haley, 2016, pp. 7–8; MassChallenge & Imaginatik, 2016, p. 6).

Authors suggest that positioning the corporate brand as an innovative and agile is beneficial not only in terms of customer retention but also assists corporate talent management, helping to attract high skilled creative workers to the company (Berger, 2017, p. 4). Over the last years, the percent share of millennials on the job market is growing, which pushes employers to change their image and hiring strategy. Startups and young ventures become more attractive employers, offering flexibility, opportunities for personal growth, room for creativity, and challenges millennials are seeking at the workplace. Collaboration with startups is a good way to create an innovative brand image to retain talent (Pioneers.io, 2019a, p. 2).

2.2.2 Startups' objectives

A longstanding body of literature suggests that collaborative relationships between startups and incumbents can provide competitive advantages to the start-up (Aggarwal & Wu, 2019, p. 3). Startups, due to their novelty, face continuous uncertainty and high risks in the volatile business environment. One of the most significant disadvantages of startups is limited access to the resources required for growth and development. Thus, research has identified that corporate capital, physical assets, capabilities, and experience serve as main motives and objectives for collaboration (Klus et al., 2019; Mas-Verdú, Ribeiro-Soriano, & Roig-Tierno, 2015; Pioneers.io, 2019a; Thomson & Perry, 2006; Weiblen & Chesbrough, 2015)

Access to corporate recourses is especially attractive for startups in the early development stages. Hence, collaboration with corporate partners is a promising way for the business development of young ventures. Startups on the ideation, concept, and committing stage frequently require external support in the form of financing, mentorship, access to the capital, and the first customers to test the idea (Larkin, M. & O'Halloran, 2018, pp. 14–17). Hence, participation in business support programs such as corporate accelerators and incubators is one of the strategic options for emerging ventures to overcome the biggest obstacles towards scaling the business.

Furthermore, lack of credibility and visibility is recognized as a startup disadvantage in competition against large incumbent firms, which brings difficulties to customer acquisition and prevents fast scaling. Hence, one of the leading motives behind the willingness to collaborate with the corporations is strengthening the brand name and gaining the customer trust (Klus et al., 2019, p. 13; Napp & Minshall, 2011, p. 31; Pioneers.io, 2019a, p. 2). Authors suggest that startups can benefit from corporate reputation and brand recognition, which can be used as a powerful reference when approaching new partners. Besides, startups are frequently aiming to get access to the large customer base, while collaborating with corporations ventures might use their corporate partners as a distribution network and gain access to existing customers of the partnering organization at a low cost (Pioneers.io, 2019a, p. 2).

2.3 Corporate-startup collaboration models

This section outlines the most common practices and models, intending to provide a better understanding of the corporate-startup collaborations. A specific model, applied in each particular case depends on multiple factors, including the startup life stage, business model, and target market segment. The approaches to corporate-startup engagement vary by the level of integration and commitment from both sides, amount of allocated resources, and scale, which is important to consider investigating the success factors for collaborations under the scope of the research.

Creating a unified framework posed one of the challenges in the research process, while there is no agreed opinion on the typology of corporate-startup collaboration models in the previous academic research. Furthermore, due to the enhanced development of the startup ecosystem, and increased interest of corporates to partner with startups, new collaboration practices continuously emerge. Different collaboration models existing in current corporate-startup collaboration practices were mainly discussed in the industry reports and white papers with limited covered in the academic sources (Bonzom & Netessine, 2016, pp. 22–23; Mocker et al., 2015, pp. 12–15). Through analysis and comparison of academic works and business reports, the following framework was constructed (Figure 2). The description of each type of corporate-startup engagement is composed of the model explanation and analysis of its applicability, providing an overview of the benefits it entails and appropriate settings for model application.

Figure 2 Corporate-startup collaboration models

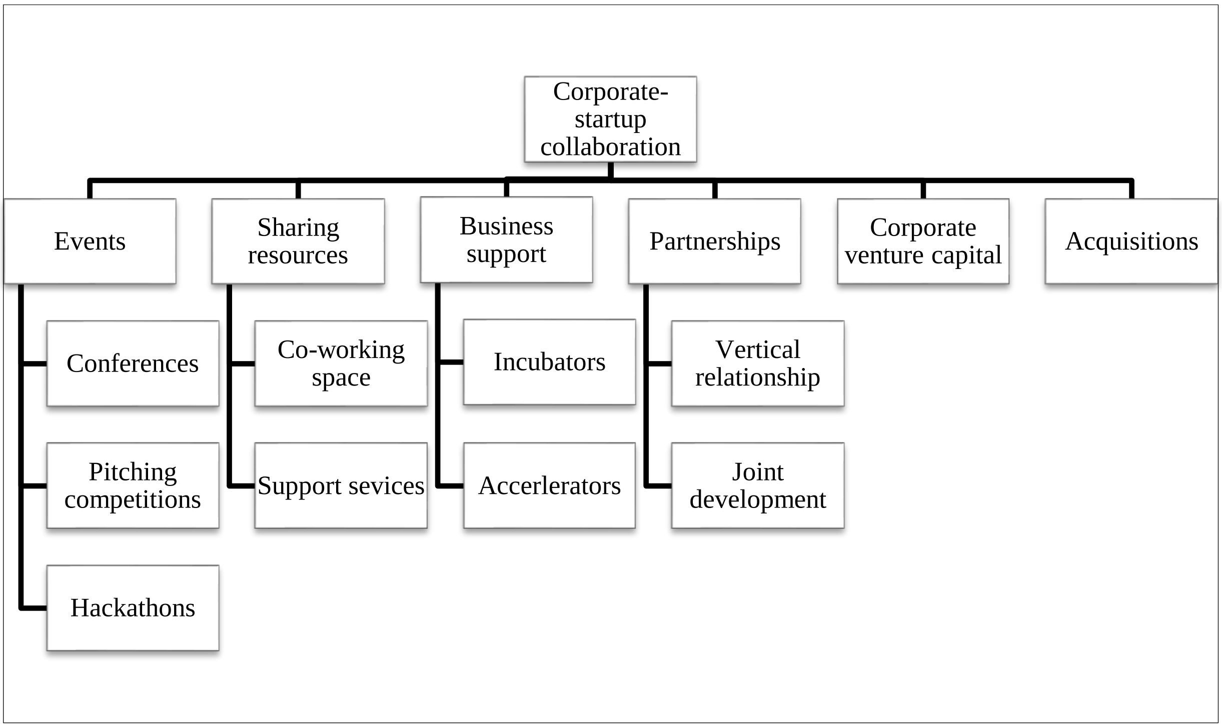


Figure 2 Existing collaboration models are arranged from the lowest to the highest levels of engagement

2.3.1 Events

Events, such as business or startup conferences, business weeks or forums, pitching competitions, and hackathons usually represent the starting point of corporate-startup collaboration.

Startup conferences often open the collaboration journey between corporations and startups. Although such one-off events cannot be identified as the collaboration model, they serve as an important pre-collaboration step. Such conferences are broad-focus or industry-specific events, which gather startups, investors, corporations, and talent for networking purposes (Pioneers.io, 2019a, p. 3). Startup conferences offer an opportunity for startups to pitch their ideas from the stage or showcase products and services at the stands, whereas corporations can get insights into the newest trends and identify potential collaboration partners. Furthermore, conferences provide an excellent setting for networking and establishing the first contact between the potential partners.

Conferences play a notable role in the facilitation of collaboration establishment in the financial services industry, among others. In 2020 there are 72 events planned worldwide, 29 out of them to be held in Europe, including the biggest scale event “World FinTech Forum”

(FinTechWeekly, 2019, p. 1). Furthermore, two startup conferences, "International Banking Innovation Forum 2020" and "600Minutes Executive Finance & Analytics," are planned to be hosted in Vienna, providing an excellent opportunity for Austrian corporations and startups to get together.

Pitching competitions also serve as the first step on the corporate-startup collaboration path, providing an opportunity for entrepreneurs to work on the idea in the competitive environment. There are multiple event opportunities on the early ideation stage, such as startup competitions or startup weekends, technology roadshows and workshops, which result in a pitch session, where startups can present their ideas to the jury panel and corporate business units (Connolly et al., 2018, p. 836; Napp & Minshall, 2011, p. 33).

However, hackathons are identified as the most common early-stage arrangement, which can be used in the collaboration process (Flores et al., 2018, p. 168). Hackathons are problem-centered short-time events, where participants with diverse backgrounds and expertise work jointly, developing a solution to the proposed challenge (Flores, Golob, Maklin, & Tucci, 2019, p. 2). While hackathons are often organized by corporations or around the corporate problem, they are becoming a useful tool for corporate innovation. Hackathons do not only serve as a pool of innovative ideas for corporations but as a source of new approaches and views on the existing problems currently solved by a corporation internally (Granados & Pareja-Eastaway, 2019, p. 495). Furthermore, corporations use hackathons to identify the problems and issues, which might not be considered or overlooked internally (Granados & Pareja-Eastaway, 2019, p. 496).

2.3.2 Resource sharing

Some researchers outline less popular collaboration practice – sharing resources. In such partnerships, corporations provide different types of resources and services for startups for free. The shared resources might include office space, technology, access to customers or internal data. Support services might include legal advice, accounting, marketing, business, and technological development, consulting (Bonzom & Netessine, 2016, p. 18). While this collaboration practice seems very attractive for startups, providing networking opportunities and necessary resources, the clear advantages for corporations cannot be easily identified. Thus, Mocker et al. state that this strategy does not provide fast and significant returns to the corporation (2015, p. 13). This idea is further supported by Prats and Siota, who states that the only objective for corporations to implement the resource sharing engagement model is getting closer to the startup ecosystem and familiarizing with innovation (2018, p. 29).

2.3.3 Business support

Incubators and accelerators are considered to be the optimal collaboration model for both corporations and startups (Capgemini et al., 2018, p. 52). They have a similar nature and purpose – both programs are directed to support startups with the venture creation process and bringing the idea to market (Cohen, 2013, p. 1). While partnering with startups has been gaining popularity, a vast number of corporates have started in-house incubator and accelerator programs, which facilitate the collaboration process and better serve corporate innovation goals and objectives.

Traditional business incubators represent established shared office facilities that host a number of client startups, providing them with value-adding supervision, ongoing assistance, and supervision (Hackett & Dilts, 2004, p. 57). Clarysse et al. advocate that the incubator model is comprised of five key components offered to the startups, including access to physical resources and financial capital, administrative support, operations support, and networking services (2005, p. 2). Incubators mainly focus on the early-stage startups, contributing to the new ventures' growth, development of MVP, and establishment of proof of concept (PoC). Due to such specifics, the incubator program lasts longer – up to 5 years, having less structure and more flexible milestones for the startups (Cohen, 2013, p. 2).

In addition to traditional incubator programs, corporate incubators have evolved as an additional engagement type. Corporate incubators are organized as a separate business unit of the corporation. Such incubators have a narrow focus on startups relevant to corporate operations, host fewer startups on-site, providing the physical and financial resources alongside with the partial access to company knowledge and customer data (Beanstatter, 2011, p. 14). Further, Weiblen and Chesbrough outline that corporate incubators can host "internal" startups - intrapreneurs, comping from the corporation working on a solution that does not fit the core business (Weiblen & Chesbrough, 2015). Authors indicate that corporate incubators create a perfect startup environment for such internally originated startups, which might be further spinned-off or re-integrated into the corporation (Weiblen & Chesbrough, 2015).

Scaling innovation through the incubator program, a corporation has an opportunity to adopt the early generated ideas into its core business. Corporate incubators create a funnel, taking startups from initial idea generation to design of proof of concept. At the end of the incubator program, the successful and viable POCs are integrated into the corporations' products and services (Capgemini et al., 2018, p. 51)

Accelerators, which are defined and described differently across multiple sources and companies, differ from incubators across three key dimensions – duration, selection process, and the offering they provide. Cohen defines accelerators as well-structured programs with a pre-defined duration of 3 months (2013, p. 4). However, there is no agreed opinion on the optimal duration of the accelerator program, and some researchers have mentioned programs lasting from 4 up to 8 months, depending on the organization and objectives behind. The structure and time limits of accelerator programs lead to a different selection process – startups are selected in batches 1-3 times a year, depending on the capacity of the accelerator. Furthermore, accelerators are well-suited for the startups on later development stages, providing the ventures with the necessary financial, physical and human resources, access to the market, ongoing mentorship program, and training (Shankar & Shepherd, 2018, p. 4).

In addition to the general ones, corporate accelerators, which are organized by corporations on-site, are becoming the most popular form of corporate-startup collaboration. Well-designed corporate accelerator programs appear to be an attractive approach to corporate innovation, meanwhile providing necessary support for startup development. This form of collaboration opens access for corporations early enough to potentially disruptive and implementable innovation in the target market (Shankar & Shepherd, 2018, p. 3). Weiblen and Chesbrough view corporate accelerators as a powerful corporate tool for scanning the market for newest trend and enhancing corporate core products and offerings through integration of startup solutions into corporate operations (Weiblen & Chesbrough, 2015)

While corporate accelerators provide an opportunity for corporations to cooperate with the startups in the respective business field, such programs are exceptionally attractive to the startups. Namely, participation in the corporate accelerator program increases the likelihood that a startup would secure the hosting corporation as the first paying customer, marketing, or distribution (Kohler, 2016). Further, if both parties reach the program milestones, startups consequentially have higher chances for further collaboration with a corporation in contrast to a standard accelerator program (Kohler, 2016; Kupp, Marval, & Borchers, 2017).

2.3.4 Partnerships

Partnerships exist in a variety of forms, representing a considerably stronger collaboration model than the previously described incubators and accelerators. Authors identify different partnership models, depending on the level of integration. For instance, the Startup Europe Partnership report identifies procurement, marketing, and distribution partnerships, license agreements, joint development, and joint ventures to be the most common types of partnerships (Bannerjee et al., 2016, p. 27). Among all, Mocker et al. define procurement from startups and joint development as the two most attractive types of partnerships (2015, p. 14).

Procurement from startups implies a vertical relationship when startups develop products and services, which can be further supplied to the corporations. In such a case, two partners work jointly on the idea implementation, sharing physical, financial resources, and know-how, which, in the end, results in a supplier-customer relationship between the startup and corporation (Pioneers.io, 2019a, p. 4).

Corporate partners gain benefits from procurement, sourcing new and quick solutions to arising business problems. Procurement from startups enables corporations to provide their customers with innovative products and services considerably faster and at lower costs, since there is no need for intensive resource allocation to internal innovation (Mocker et al., 2015, p. 14). On the other side - startups gain incumbent organization as a key lead customer, which opens the doors to future opportunities.

The products & services which are supplied to the corporation are in the majority of cases white-labeled (Klus et al., 2019, p. 14). The white label implies that being sold to the corporation, products, and services are implemented under the corporate brand. Thus, the end customer receives the offering from the corporation and not the startup. According to the survey conducted by World Fintech Report, more than half of the FinTech startups prefer to white-label their solutions and products for the incumbent corporations (Capgemini et al., 2018, p. 50). Another option for procurement is co-branding, which entails revealing the name of the startup service provider to the customers (EY & Tapestry Networks, 2018, p. 23). Co-branding might be associated with the model Bannerjee et al. define as marketing and distribution partnerships, whereas two partners are engaged in joint marketing campaigns to advertise the solution (Bannerjee et al., 2016, p. 27).

As an alternative to the vertical relationship, authors identify horizontal relationship models, which imply closer cooperation while startups work jointly with corporations on product development (Mocker et al., 2015, p. 14; Pioneers.io, 2019a, p. 4).

The most prevalent form of horizontal partnerships are co-creations, or joint product development (Bannerjee et al., 2016, p. 27; Pioneers.io, 2019a, p. 4). These are usually the long-term collaboration relationships, with the duration of up to 4 years, directed to co-develop a product or solution in-house. The main objective of joint co-creation is the development of the startup idea into the ready product through a combination of resources and capabilities of both collaboration partners (Pioneers.io, 2019a, p. 4). In co-creation partnerships, both parties pull the resources together, which commonly includes human capital, intellectual property, finance, or any other supporting assets. It is a win-win solution since the disruptive startup environment is effectively leveraged with the incumbent’s experience, resources, brand name and customer base. However, since model implies tighter connections and stronger collaboration between traditional corporation and startups than previously described vertical relationship models, it inevitably poses bigger barriers towards successful collaboration, described in the next chapters.

2.3.5 Corporate venture capital

There is an ongoing debate on whether CVC investments can be considered as a form of corporate-startup collaborations. Corporate venture capital - the equity investment in startups from corporate funds plays an important role in corporate innovation (Napp & Minshall, 2011, p. 27). CVC, being one of the oldest open innovation strategies for corporations, was the beginning of open innovation and corporate-startup collaboration (Weiblen & Chesbrough, 2015).

While some CVC investments have only financial objectives, the majority of corporations consider having an equity stake in the startups with potential for growth as an opportunity to keep track of the new technologies and stay up to date on the important market trends. Current research considers corporate venture capital to be a viable collaboration model as long as the corporation is focused on facilitating innovation and supporting the venture in addition to financial returns, as suggested by Aggarwal &Wu (2019, p. 2).

Even though the benefits of the CVC perspective are widely similar to the other collaboration types, the risk associated with CVC is higher. Ventures on the startup stage are considered to be a risky investment due to a high failure rate, which requires a better screening process and portfolio selection of viable and scalable businesses. On the other hand, CVC investments might be strategically important for both parties, being already engaged in established partnerships (Benson & Ziedonis, 2009, p. 329). From the corporate perspective, CVC offers the opportunity to have a stake in the startups, which are already engaged in the collaboration process. This option might be an attractive solution for the startups as well, since raising investments from collaboration partner funds secures long-term partnerships and the position of the startup on the market. However, startup owners should consider that collaborating with one corporation, especially through CVC might tie the startup's decision autonomy to collaborate or exit to competitors of the partnering organization (Weiblen & Chesbrough, 2015)

Furthermore, CVC offers explorative and exploitative opportunities for corporates, providing insights into emerging technologies and access to such technologies, which can be embedded into the corporate products and services (Napp & Minshall, 2011, pp. 30–31). For the startups, collaboration through corporate venture capital implies limited access to the physical resources and know-how of the company as opposed to partnerships or business support programs. However, CVC, besides financial support enhances startup reputation, offers managerial advice and supervision on the strategic and operational levels (Napp & Minshall, 2011, p. 32)

2.3.6 Transformational arrangements

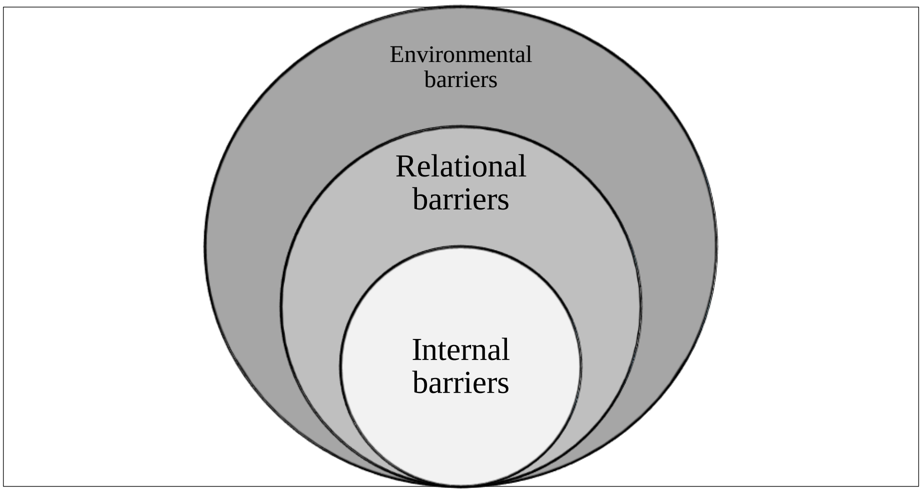
Acquisitions of the startup by partnering organization is a culmination of the collaboration process. The acquisition is suggested to bring a great value added to the corporation, capitalizing on the business opportunities and growing the company through vertical integration. However, some practitioners have emphasized that acquiring startups is associated with high risk and multiple complications due to corporate structure and rigidity. For instance, Prats & Siota highlight that acquisition should be preceded by long-running collaboration, whereas both parties are able to ensure there is a strategic and organizational fit (2018, p. 22). Further, the same research indicates that advanced agility and flexibility in corporate structure and operations is an essential pre-requisite to startup acquisition (Prats & Siota, 2018, p. 22).

2.4 Obstacles for corporate-startup collaboration

Matching the two worlds together is frequently easier said than done. Weiblen and Chesbrough, analyzing the history of corporate-startup engagement, have concluded that a vast number of the past efforts on exploiting the complementary nature of the corporates and startups have not reached their targets and failed to establish successful partnership (Weiblen & Chesbrough, 2015, p. 66). Stepping into the path of collaboration, both parties might underestimate the challenges constituted by the large gap between organizational culture, structures, and processes, as well as complications imposed by the external environment. Hence, investigation of the success factors for corporate-startup collaboration requires a substantial understanding of obstacles in the collaboration process.

Assessment of the obstacles and challenges in the collaboration process is based on the framework presented in Figure 3 below. Taking such a structured approach allows analyzing collaboration barriers on the three levels, exploring internal corporate and startup characteristics, relationship specifics, and environmental factors restraining collaboration.

Figure 3 Obstacles to successful collaboration



Internal barriers comprise challenges imposed by organizational culture, business model, structures, and processes of both sides. Above all, the differences between the collaborating parties - the conflicting organizational structures, size, speed and scale of businesses of the partnering sides are eroding collaboration power and effectiveness, thus require substantial effort from both sides to overcome the gap (Jarmai & Vogel-Pöschl, 2020, p. 4).

For corporations, one of the critical issues on the way to successful collaborations is corporate rigidity and routines (Berchicci & Tucci, 2009, p. 336). Authors indicate that mature organizations with well-established structures and processes encounter difficulties not only while driving internal innovation. In contrast, researches have confirmed that corporate inertia has implications for open innovation and collaborations with startups as well (Berchicci & Tucci, 2009, p. 336). The roots of the problem lie in the excessive focus on the core business, technologies, and markets, as corporations are tempted to stick to the existing organizational routine, especially if it delivers satisfactory results. It results in the lack of entrepreneurial and innovative culture, leading to resistance from the individual employees and whole departments to implementation of the startup solutions, low motivation to pursue the collaboration and failure to commit to the process (Bannerjee et al., 2016, pp. 14–15).

Furthermore, as reported by corporations, strict hierarchy, the formality of communication and reporting systems, established processes and structures slows the collaboration down (Bannerjee et al., 2016, p. 13,20; Nordic Innovation, Microsoft, Valuer, & TechBBQ, 2019, p. 6,12). Poor internal communication, chaotic information flow between departments entails extreme difficulties for the startups to handle time-consuming negotiation process before the collaboration even starts (Bannerjee et al., 2016, p. 15). Corporate culture and structure are recognized as a major obstacle in the financial services sector as well. As stated by the World FinTech Report, one of the greatest challenges on the path of innovation is fixed hierarchy and rigidity of processes, resources, and connections with the corporation, which creates obstacles for collaboration and integration of the solutions provided by startups (Capgemini et al., 2018, p. 54).

As for the startups, previous research has not identified substantial internal barriers on the way towards collaboration. The challenges which startup teams can face in the collaboration process are mainly connected to the size of the ventures and lack of the resources, which might become an obstacle if the negotiation process is progressing too slow for the startups to maintain operations (Jarmai & Vogel-Pöschl, 2020, p. 4). Bannerjee et al. state that mismatch in speed is considered to be one of the most significant challenges for startups (2016, p. 10). Startups, having limited financial and human resources, require fast growth, and continuous growth to survive on the market. Thus, the most dangerous implication of the speed mismatch and slow corporate decision cycles for the startups is a threat of lost sales and inability to sustain operations while waiting for the partnership to be implemented (Larkin, M. & O'Halloran, 2018, p. 8; Prats & Siota, 2018, p. 9).

Relational barriers include challenges both parties experience interacting with each other while establishing collaboration and running the partnership. Complementary nature of corporations and startups has promising opportunities, which might be realized through the collaboration process (Kohler, 2016, p. 2). However, even though both parties have disadvantages and deficiencies which are offset by the other party advantages, some of the corporate and startup organizational and operational specifics might create hurdles for the collaboration process.

For instance, seeking collaboration opportunities startups might have difficulties recognizing and approaching the appropriate collaboration partners due to the complex structure and communication barriers (Hsu, 2006, p. 205). On the other side, screening and selecting the best-fit startup is one of the issues corporations face at the beginning of the collaboration path. The issue of matchmaking and finding strategic fit is also highlighted by Napp and Minshall, indicating that both parties acknowledge the difficulties in communicating the value proposition to each other (2011, p. 35). Further, Prats and Siota highlight difficulty in finding the entry point to collaborations as one of the challenges startups face regardless of the industry or country setting (2018, p. 9).

An additional hurdle imposed on the collaboration parties is a complex communication process, frequently observed by the startups. A commonly reported issue is changing contact employees within the corporation, which imposes additional difficulties for the startups to proceed with the project and push it through the multiple negotiations (Bannerjee et al., 2016, p. 10). Similarly, Prats and Siota suggest that in case the responsibilities within the corporations are not well-defined, startups might "get lost" in the process and abandon the partnership (2018, p. 9).

Moreover, struggle establishing trust between partners is identified as one of the relational barriers. Weiblen and Chesbrough emphasize that startups have reservations sharing the solutions and know-how with the corporations, fearing that corporations might steal their ideas (Weiblen & Chesbrough, 2015). Authors concluded that managing intellectual property is a significant obstacle for corporate-startup collaborations, especially when business support and partnership models apply (Weiblen & Chesbrough, 2015). This statement is supported in the NESTA report, which highlights managing intellectual property issues in the negotiation process for collaboration (Bannerjee et al., 2016, p. 11).

Distribution of influence and power in the collaboration process often becomes a ground for conflicts and collaboration failure (Bannerjee et al., 2016, p. 11). The power imbalance is one of the key challenges for corporate-startup collaboration, while the access to resources and pre-determined ownership of results shifts the power towards the corporate side (Jarmai & Vogel-Pöschl, 2020, p. 4). This results in growing inequality between collaboration parties, which might lead to unfair collaboration terms and, as a result, unproductive partnerships. KPMG report states that multiple startups acknowledge accepting unfavorable collaboration conditions, proposed by corporate partners, which was a necessary step to maintain a long-term relationship (2015, p. 4). Thus, it is suggested that substantial effort is needed to improve power and influence distribution in the collaboration process.

Overall, relational barriers occur due to radical differences between the collaborating parties, which is especially relevant for the financial sector. In the resent work "Future of finance," authors claim that the difference between the incumbent banks and startups in the industry should not be underestimated, while it is one of the biggest sources of obstacles and challenges for collaboration (Arslanian & Fischer, 2019, p. 67).

Among the environmental barriers, previous research has identified regulatory complications as the most significant ones. On the one hand, the support from the regulatory bodies has been increasing over the last decades, promoting innovation in all the economy sectors. For instance, playing an indirect role, EU regulators require established corporations to apply new technologies, thus pushing the last towards collaboration (Capgemini et al., 2018, p. 40).

On the other hand, regulators impose strict limitations on the collaboration process. The first obstacle to consider is GDPR – General Data Protection Regulation, which might pose certain implications on the collaboration process, limiting both parties in possibilities to test the solutions entering into collaboration (DLA PIPER, 2019, p. 5). Besides, corporations in the financial sector are subject to various laws and provisions which limit partnerships and outsourcing of the services to third parties, including fintechs such as fintechs (DLA PIPER, 2019, p. 5). Moreover, regulatory obstacles might be complicated if collaboration parties need to comply with differing legislation and regulations, being incorporated in different countries (Steigertal, L; Mauer, 2018, p. 17).

2.5 Success factors for corporate-startup collaboration

This section summarizes the insights on contributing factors to successful collaboration between corporations and startups, identified by the researchers, practitioners, and collaborating parties across various industries. In the course of the literature review, an appropriate framework of the success factors was identified in order to structure the research and cover important collaboration aspects.

The existing literature database provides current research with a number of not systemized perspectives on the topic of corporate-startup collaboration. Furthermore, the literature on corporate-startup collaboration success is scarce, and there is no framework, which could serve as a foundation for a comprehensive analysis of the success factors. Most of the existing studies examine the success factors in traditional inter-organizational collaborations, without a clear focus on corporate-startup engagement. Thus, it was decided to use one of the frameworks from inter-organizational collaboration studies as the basis for current research.

In the course of the literature review, two appropriate frameworks have been identified. Mattessich, Murray-Close, & Monsey identified 19 success factors for effective collaboration, which are grouped into the following categories - environment, process & structure, membership, communications, purpose, and resources (2001, p.14). Similarly, based on multiple case-study and theory analysis, a comprehensive typology of success factors was developed by Yoon, Lee, Yoon, & Toulan (2017,p.3). The researchers provide a variety of success factors with consideration of four different perspectives – external environment, collaboration characteristics, partnering sides characteristics, and planning stages (Yoon et al., 2017, p.4).

After careful analysis of both studies and suggested approaches, categories developed by Mattessich et al. were chosen as a foundation for future analysis of potential success factors, since this approach is considered to have broader coverage of the collaboration process (2001,

p. 14). However, since Mattessich et al. research does not consider corporate-startup collaboration specifically, the current study requires additional examination of specific characteristics of the startup collaboration process in order to find out which sub-factors would fall into the categories mentioned above. Since there is a limited amount of academic literature on the topic, corporate reports, industry leaders' outlines, existing case studies, and white papers were used for success factors identification. It is essential to mention that the current overview gathers insights from separate cases and particular collaboration activities. The validity and applicability of the outlined factors will be tested in the empirical part of the research.

2.5.1 Environmental factors

Environmental factors define the context for the collaboration process, which poses indirect obstacles or opens better opportunities for successful collaborations. Reviewing the previous works on corporate-startup collaboration, three major environmental factors have been identified – regulatory, business climate, and surrounding ecosystem.

The regulatory environment is one of the essential factors to consider, especially in the research conducted in the financial sector, since it has a considerable impact on the collaboration process. Overcoming the regulatory barriers, outlined in the previous section, is one of the biggest challenges on the way to the successful collaboration.

While startups and corporations do not have a direct influence on the regulatory environment, supporting organizations and entities in the startup ecosystem need to act upon. Regardless of the external help, practitioners recommend both collaboration sides, especially startups, to conduct regular checks of the regulations and compliance aspects (Capgemini et al., 2018, p. 56). Such a suggestion is supported by McKinlay, who emphasizes the importance of clarification of the regulations and requirements to the partnerships entering the negotiations for collaboration (2019, pp. 4–5).

Besides the regulatory environment, which applies specifically to the financial sector collaborations, some authors have emphasized the importance of a favorable business climate for successful collaboration. For instance, Parkinson suggests that favorable social and political climate, as well as the state of the economy, have a notable influence on the collaboration process in general (2006, p. 7). This idea is supported by Kożuch & Sienkiewicz-Małyjurek, who concluded that economic conditions, including unemployment levels and inflation, have a great impact on the collaborations, influencing the success of the outcome of the partnership (2016, p. 106). This suggestion was especially interesting to consider, while the time frame of the research matched the Covid-19 pandemic spike, which has led to a sharp economic downturn. Thus, exploring the impact of such unfavorable conditions on collaborations was considered during the data collection procedure.

On a smaller scale, authors identify that thriving collaboration might depend on the location of the partners. For instance, Patel et al. suggest that co-located facilities of both partners might ease formal and informal communication, enhance productivity and achieve better results in the tasks which require joint work and combined effort (Patel, Pettitt, & Wilson, 2012). However, the applicability of this statement in the current environment should be verified, while the globalization trend, alongside the growing importance of tech, might have eroded the importance of geographic proximity.

Further, the availability of the supporting intuitions and growing network of players in the ecosystem was highlighted to be one of the success factors for collaboration. For instance, Kupp et al. suggest that a wide committed external network of supporters can contribute to the success of the partnerships (Kupp et al., 2017). Although, more recent studies do not mention the importance of network for corporate-startup collaboration.

2.5.2 Purpose and objectives for collaboration

Important factors influencing an outcome of the collaboration are specific motives and objectives of both parties for entering into collaboration. As described in section 2.2, driving motives differ for the involved parties – corporates are willing to collaborate to enhance innovation, gain more innovative suppliers, move towards the entrepreneurial culture, as for startups the expected primary outcomes are access to the customer base, resources and market knowledge (Larkin, M. & O'Halloran, 2018, p. 7).

Previous research highlights two essential success factors related to motives and objectives for collaboration. Above all, each party needs to have a clear understanding of its objectives and strategic goals to be achieved in the collaboration process (Pioneers.io, 2019a, pp. 5–6). Awareness of the own organization's needs and reasons behind the decisions to engage with the other party is an essential pre-requisite towards productive partnership and serves as an anticipation of failed expectations for each side (Vangen & Huxham, 2003, pp. 17–18).

Furthermore, a clear vision of the expected collaboration outcome and targets to be achieved is critical for the appropriate collaboration program choice (Mocker et al., 2015, p. 12). Authors suggest that mismatch between the objectives and engagement model can result in the failed partnership and waste of the resources spent on collaboration. Besides a proper understanding of their own motives, successful collaboration requires an understanding of the partner’s objectives. While the objectives for collaborations differ from case to case, starting the collaboration, it is highly important to research the motives behind, if they are not communicated openly by the partner (Patel et al., 2012).

Nonetheless, understanding the collaboration partner’s objectives is only the first step towards successful partnerships. Previous studies show that both parties need to have an agreement on common goals (Match-Maker Ventures & Arthur D Little, 2016, p. 36; Thomson & Perry, 2006, p. 23). Founders of one of the first in Germany corporate accelerators outline that transparent and aligned goals are one of the top 5 success factors (Kupp et al., 2017, p. 6). Parkinson suggests that collaborating partners need to have a shared vision, an agreed-upon mission, aligned goals to achieve the desired collaboration outcome (2006, p. 9). Both corporations and startups previously mentioned the need for shared vision across different industries (Kożuch & Sienkiewicz-Małyjurek, 2016, p. 106). Furthermore, there is a shred of evidence that shared goals and objectives are recognized as a key success factor in financial sector collaborations, while more than 70% of the fintech startups, surveyed worldwide identified alignment of objectives and are highly important factors of collaboration success (Capgemini et al., 2018, p. 55).

Bose et al. also suggest that finding the right collaboration partner is important for agreement on common goals and shared vision (2018, p. 10). The right choice of partners is highlighted among the critical success factors for corporate-startup collaboration (Pioneers.io, 2018, p. 10). The majority of startups, especially in the financial sector, are forecasted to fail because of the inability to find the right partner with the matching goals and business model and culture fit (Capgemini et al., 2018, p. 10). Authors indicate that articulation and communication of the value proposition from both parties is an important step towards selecting the right collaboration partner and establish core goals and objectives for collaboration (Capgemini et al., 2018, p. 10). Further, Napp and Minshall emphasize that the internal compatibility check of the potential collaboration partners within the corporation is one of the key recommendations for successful collaboration (2011, p. 36).

Besides having shared vision and objectives, findings from previous research suggest that successful collaboration requires setting concrete, transparent and attainable goals (Kupp et al., 2017; Parkinson, 2006). Failure to set the right goals and milestones for their achievement may slow down the collaboration, and in some cases, lead to failed partnerships while the partners would not reach up to each other's expectations.

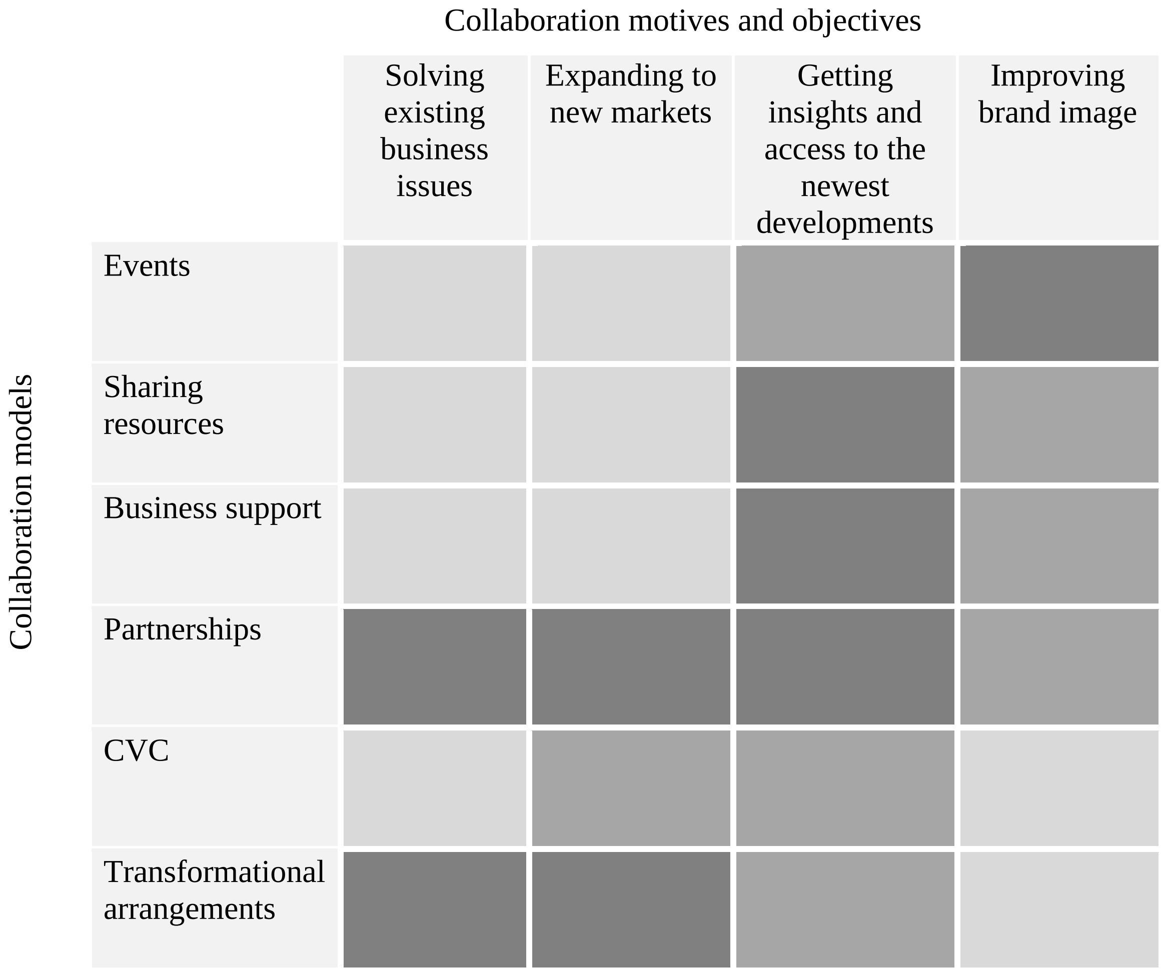
Lastly, successful collaboration requires a well-defined strategy that would address the most commonly arising issues, including a lack of agility in corporations, complex hierarchy, and process structure (Capgemini et al., 2018, p. 55).

2.5.3 Collaboration processes and structure

Setting the right structure for collaboration is a vital part of the successful collaboration (Pioneers.io, 2018, p. 10). As mentioned in the previous sections, choosing the right collaboration model largely depends on the motives and objectives for collaboration. Setting the right framework is important for corporations to consider the desired level of integration, resource sharing, levels of interdependence, and freedom (Berger, 2017, p. 14).

Mocker, Bielli, & Haley have developed a framework based on the key objectives for partnership from a corporate perspective, indicating the best-fit program type for each objective (2015, p.12). The modified framework is provided in Table 2, representing the successful matches between objectives and engagement model.

Table 2 Corporate objectives - collaboration model fit



Note: The stronger intensity of the field shade reflects a better fit between the model and objectives. (Adopted from Mocker et al., 2015, p. 12)

Besides, since collaboration is a two-way process, previous studies highlight the need to consider the complementary perspective of startups. Larking & Halloran suggest that besides consideration of corporate motives and objectives, it is important to ensure the fit between the startup stage of development and offered collaboration model (2018, pp. 16–18). Table 3 below provides an overview of the suggested corporate-startup engagement models for each of the three phases of the startup lifecycle.

Table 3 Startup growth phase - collaboration model fit

Stand-up phase

- Resource sharing
- Business support
  - Incubators
  - Accelerators

Start-up phase

- Partnerships
  - Joint product development
  - Supplier-customer relationship
- CVC

Scale-up phase

- Transformational agreements
- Partnerships
  - Supplier-customer relationship
  - Joint product development

Note: Adopted from Larkin, M. & O'Halloran (2018, pp. 16–18).

Thus, the successful choice of the appropriate collaboration model, which sets the basis for successful collaboration, requires deliberate analysis of corporate objectives, combined with the startup development stage.

Another important factor influencing the collaboration process is the level of integration of various business units in the collaboration process. The World Economic Forum report provides a summary of five models of collaboration for corporates with consideration of business units, and the degree of involvement in the collaboration process (Larkin, M. & O'Halloran, 2018, pp. 14–16). Researchers suggest that parameters like the degree of integration of innovation departments and other business units define the barriers for decision making, communication process, influencing the success of the collaboration process and its outcome. On the one hand, previous studies highlight that strongly integrated into the corporate structure innovation units have a higher likelihood to succeed and pursue fruitful partnerships. Contrarywise, Beanstatter indicates that for independent corporate venture capital units, corporate incubators and accelerators, autonomy and independence is needed, while they are diametrically opposed to the core business of the corporation (2011, p. 26). Nonetheless, the author highlights that the necessity of establishing strong linkages to the rest of the business units remains true for most of the collaboration models, while it increases the collaboration benefits over the long run (Beanstatter, 2011, p. 26).

Besides, collaboration success is frequently attributed to the efficiently organized collaboration process, which a vast number of researchers and practitioners identify as among major success factors for collaboration. Mocker et al. suggest that a clear set of objectives and an implementation plan need to be developed to organize successful collaboration (Mocker et al., 2015, p. 12). Moreover, the authors highlight the importance of creating a set of clear performance indicators for both partners to monitor the progress and the results of collaboration activities. Similarly, Kupp et al. concluded that the development of key performance indicators (KPIs) is an important success factor, especially for startup programs like incubators and accelerators, as well as partnership engagement (2017, p. 51). A well-elaborated set of KPIs is further mentioned as a key success factor based on corporate and startup feedback in the recent Pioneers 500 report, the main focus of which is placed on collaborations in the Austrian startup ecosystem (Pioneers.io, 2018, p. 10). Besides, Chin et al. suggest that introduction of periodic reviews and between-teams check-ups are necessary to monitor the performance, measure progress and keep track of the collaboration process (2008, p. 443)

Alternatively, some researchers present that alongside an organized and well-planned process and, a large extent of flexibility is needed. For instance, Parkinson suggests that successful collaboration requires the adaptability of collaborating parties in regard to the major challenges and changes in the collaboration goals and objectives (2006, p. 8). Since the startup environment is very volatile, and the collaboration process is still not well-explored, some changes to the initial plans and agreements are reasonable to be expected. Thus, the author advocates that collaboration partners need to remain open to adjustments to accomplish their work in a changing environment (Parkinson, 2006, p. 8). Further, the importance of organizational learning through ongoing identification and correction of errors in the collaboration process is mentioned as an influencing factor for collaboration success (Chin et al., 2008, p. 443)

Some researchers suggest that the “type and structure of collaborative tasks” define the partnership success (Kożuch & Sienkiewicz-Małyjurek, 2016, p. 106). However, there is no clear suggestion on how the task structure impacts the collaboration process and which cases have proven to be more successful, which requires further investigation and validation of this statement. Besides, considering the structure and tasks, some collaborating parties acknowledged the need for training, necessary on both sides to organize the process efficiently and ease the cooperation (Jarmai & Vogel-Pöschl, 2020, p. 3).

Previous research has also paid great attention to the clarity of roles and responsibilities in the corporate-startup collaboration. Most of the case studies conducted across different countries and industries include role division and clarity among the vital success factors for fruitful collaboration (Napp & Minshall, 2011, p. 35; Parkinson, 2006, p. 8; Thomson & Perry, 2006, p. 25). Further, participants of the workshop on “Meaningful collaboration for innovation,” organized by the French Institute for Managing Sustainability, highlighted the importance of clarity of roles and spheres of influence (Jarmai & Vogel-Pöschl, 2020, p. 3). A similar opinion is presented in the recent Pioneers report, which mentions that keeping clarity of responsibilities over collaboration tasks is required for successful partnerships (Pioneers.io, 2019a, p. 5).

As mentioned in section 2.4, the major source of obstacles in the collaboration process comes from a large gap between the corporate and startup worlds in multiple aspects. The research on success factors for collaboration has confirmed, that both parties acknowledge the importance of deep understanding from the incumbent’s side of the how startups differ from corporations in operations, business model, culture and relationships (Berger, 2017, p. 8). It is highlighted that corporations need to be aware of the fintech challenges and needs so that they can have a better understanding of the potential collaboration outcome and set more attainable targets for both sides.

2.5.4 Membership and involvement

One of the key relational barriers identified within corporate-startup collaborations is the size and power difference between both sides of the partnership. Collaborations between corporations and startups are a-priori the structures with imbalanced influence. While corporates serve as the power centers, the collaboration unit needs to control that the corporation does not misuse its power and dominance (Vangen & Huxham, 2003, pp. 21–22).

Parkinson suggests that power imbalance can be overcome by emphasizing the self-interest and benefit of the collaboration outcome to each party (2006, p. 7). The study highlights that a clear understanding of the value proposition of the collaborating party and estimates that the advantages of the collaboration offset the costs and efforts is an essential step to dealing with power imbalance (Parkinson, 2006, p. 7).

Besides, Kożuch & Sienkiewicz-Małyjurek propose that joint decision making, which equally involves both collaboration partners, helps to overcome power differences and bring startups on the same level with their corporate partners (2016, p. 106). A similar opinion is shared by Thomson &Perry, who identify joint governance as one of the key dimensions of the collaboration process, emphasizing the importance of shared power and participative decision making (2006, p. 24). Besides, authors suggest bringing transparency to the decision-making process, especially on the corporate side, so that the startups stay informed of the changes and progress of the partnership and get updated promptly (Kożuch & Sienkiewicz-Małyjurek, 2016, p. 106).

Another solution for the equal distribution of power is advised by Kupp et al. Authors recommend having an independent team within a corporate innovation unit, which would play a role of startup advocates, promoting collaboration and presenting the interests of startups within the corporation (Kupp et al., 2017, pp. 50–51). Similarly, Shankar and Shephered reveal that both corporations and ventures highlight the importance of periodic reviews and executive involvement in mediating the interaction between the two parties and "promoting" the ventures' interests within the corporation (2018, p. 12).

Great attention in the previous research is dedicated to management commitment as a critical success factor. Practitioners indicate that C-level support is vital for collaboration units (KPMG, 2014, pp. 18–19; Pioneers.io, 2019a, p. 5). Such reports' findings are coherent with some academic researchers' conclusions. For instance, the research done on successful cooperation strategy has identified management commitment, and relationship development as one of the key goals of collaboration parties (Chin et al., 2008, pp. 442–449). Beanstatter highlights that collaboration units and activities require strong sponsorship and support from the top management, especially in the economic downturns and first stages of collaboration when it might not bring the expected results (2011, p. 26). Thus, collaborating parties reported that in order to pursue the partnership successfully, top-management involvement should be started before the collaboration, in order to gain vital support from the start (Open Axel, 2017, p. 6).

Despite the fact that very few studies indicate the reasons behind the importance of top-management support, one can assume that due to the complexity of large corporations, without proper management support and lobbying, results of collaboration with startups might go by the sideway. This is especially relevant for the financial sector, due to the specifics of corporate culture and structures. For instance, a survey among fintech startups worldwide concluded that top-management support is recognized as one of the key contributors to a successful collaboration (Capgemini et al., 2018, p. 11).

Another aspect to consider is the importance of trust between collaborating parties, which is highlighted by the majority of researchers of the collaboration topic. Trust and mutual respect between partners stimulate cooperative activity and willingness to share useful knowledge, which, in turn, further fosters trust (Beanstatter, 2011, p. 19). Besides, Anderson and Narus suggest that a high level of trust prevents conflicts among the collaboration parties and leads to higher partner satisfaction (as sited in Chin et al., 2008, p. 443).

The opinions on the approaches towards trust establishment in the collaboration differ among the authors. Share of studies presents the importance of having a trustful relationship on the initial stages of collaboration (Bannerjee et al., 2016, p. 23). However, it can be argued that building trust without delivering any results is challenging to achieve due to multiple fears and reservations both parties have towards each other. Thus, Vangen and Huxham advocate that successful collaboration requires established trustful relationships, which can be achieved with time as the partnership evolves (2003, p. 16). Authors discuss the importance of sustaining the "trust loop," which requires setting the right expectations, managing the relationship, and delivering the results according to expectations (Vangen & Huxham, 2003, pp. 16–23).

2.5.5 Communication

Open, transparent, and efficient communication is frequently mentioned among the key success factors for corporate-startup collaboration. However, most of the studies highlight different aspects of the communication process, which need to be considered. For instance, the study by Hardy, Lawrance & Grant places focus on communication styles, advocating the importance of specific conversation styles for collective identity formation in the collaboration process (2005, p. 69). Authors suggest that successful collaboration can be achieved by combining the two communication styles – cooperative talk and assertive talk, which helps to keep a balance between willingness to compromise and to promote own interests (Hardy et al., 2005, pp. 69–71).

Besides, some researchers looked at the structure and methods of communication between collaboration partners. Case studies and surveys confirm that well-structured communication channels enhance the collaboration process and ease cooperation (Hora, Gast, Kailer, Rey-Marti, & Mas-Tur, 2018, p. 431). Chin et al. advocate that successful communication management requires the establishment of direct and clear communication channels within the corporation and between collaborating parties, which entails transparent information flow between all the collaboration stakeholders (2008, pp. 442–449). Besides, research indicates that in addition to commonly exploited traditional communication channels, such as face-to-face meetings and calls, companies engaged in the collaboration should use information technologies and online communication channels, which can complement or substitute traditional communication ways (Kożuch & Sienkiewicz-Małyjurek, 2016, p. 106).

Furthermore, few academics reveal that in addition to formal communication in frame of collaboration negotiations and procedural meetings, informal communication plays an important role in establishing successful partnerships (Kożuch & Sienkiewicz-Małyjurek, 2016, p. 106; Parkinson, 2006, p. 8).

Another aspect to consider is the frequency and quality of communication between the parties. The best collaboration practices from other industries show that in order to provide the startups with all the necessary support and resources regular update on the startups' status is needed (Chin et al., 2008, p. 443). Companies are advised to organize regular inquiries on the status-quo and progress of each startup in collaboration. On the other side, startups are recommended to develop regular reports on the targets achieved to provide the corporate partner with an adequate estimation of the progress of collaborating activities.

Furthermore, experienced collaborators and researchers emphasize the importance of mutual understanding, which goes beyond the aspect of communication and information sharing (Jarmai & Vogel-Pöschl, 2020, p. 3).

2.5.6 Resource base and allocation

In the traditional view of collaboration between a start-up and incumbent, the parties engage in a value-creation effort focused on utilizing the complementary assets of the incumbent. In such a situation, the start-up provides value at the early ideation stage, while the incumbent supplies generally more capital-intensive resources necessary to commercialize the innovation. In a sense, the start-up transfers its innovative knowledge to the incumbent firm, which in turn leverages the knowledge in conjunction with its complementary assets (Aggarwal & Wu, 2019, p. 8). Hence, collaborating parties need to take a proper approach to resource management and allocation in order to meet collaboration objectives.

Despite its importance, resource base and allocation received limited attention in the academic literature in comparison to the other success factors. While multiple studies recognize limited financial, physical, and human resources as one of the collaboration constraints, only a few studies have proposed the suggestions for tackling this aspect of collaboration. Parkinson, for instance, indicated that both parties need to have a sufficient resource base, which would enable them to meet the collaboration objectives over the long run (2006, p. 8). Chin et al., recognizing the constraints highlighted that corporations and startups need to have organized resource planning and fair distribution of the vital capital and human resources to satisfy collaboration needs (2008, p. 442). Further, Kożuch & Sienkiewicz-Małyjurek suggested that the ability to compromise and balance the resources pulled into the collaboration process from each side is important for successful collaboration (2016, p. 106).

Among different types of resources, only knowledge and intellectual property were considered in the studies analyzing the success of corporate start-up collaboration. While the idea and product are core to startup survival and growth, one of the key insights from collaborating parties is that clearly documented boundaries regarding property rights might positively contribute to the strong long-term partnership (Weiblen & Chesbrough, 2015, p. 85). The authors suggest that precautions need to be taken to avoid disputes for the IP of the co-developed product and sustain long-term partnerships. Apart from intellectual property management, no other suggestions for resource-related success factors have been identified in the preceding research.

3 Research Methodology

3.1 Research strategy and design

3.1.1 Research design

As the preliminary literature review has revealed, the research field of the current study is rather unexplored. There is no comprehensive overview of the current state of the collaboration processes in the Austrian financial sector. Furthermore, existing collaborations, the motives and objectives behind prevalent collaboration models, and most importantly, the success factors for establishing such collaborations are only fragmentary documented in the industry reports, organizational white papers, and start-up media sources. Thus, this research has a primarily exploratory purpose, directed to discover and describe a rather unknown phenomenon, gain an in-depth understanding and contribute new insights to the existing knowledge base.

Considering the exploratory purpose of the current study and a need for deepening the knowledge on the topic, qualitative research was considered as the most suitable to answer the research questions. Qualitative research is used to gain an understanding of how individuals perceive the world and to explore the meaning, which people ascribe to the issue under the scope of research (Bryman, 2012, p. 399; Creswell & Creswell, 2018, p. 51). While it implies inductive reasoning, qualitative research design provides room for participants' individual perceptions and interpretations, which would further be used to derive theories and conclusions (Bryman, 2012, p. 401). Given specifics of the qualitative research match the purpose of the study well, while personal opinions and experiences of both parties involved in the collaboration process are essential to reveal the success factors. Furthermore, it is suggested that the induction of the theories and concepts from the data collected, makes qualitative research more applicable for the scientific fields, not yet well explored (Bryman, 2012, p. 384). This statement supports the motivation behind the application of qualitative design for the research on the topic of corporate-startup collaboration.

While the necessity to employ qualitative research is not arguable, choosing the research design in the frame of the qualitative study has not been straightforward. In particular, research methodology suggests that the case study approach is suggested to take when exploring business relationships in the field of inter-organizational relationships (Halinen & Törnroos, 2005, p. 1286). Furthermore, analyzing previous studies on corporate-startup collaboration topics, multiple case study method is the most frequently used one. Besides, such an approach has been employed in cases where the researchers were able to sample matched pairs of cooperating corporations and startups (Gustafsson & Magnusson, 2016, p. 34; Hora et al., 2018, p. 417).

The multiple case study design has a number of advantages, specifically in the research on success factors for processes and relationships. Namely, it implies phenomenon exploration within a given context through different lenses, using multiple data sources and types (Baxter Pamela & Jack, 2008, pp. 544–545). Thus, it could have brought to the research an opportunity to explore the collaborations under the scope of the research in more detail, combining participant experiences and opinions with in-depth analysis of the collaboration process, steps, participants' business models and further information which could provide answers to the research questions.

However, employing multiple case study design has certain implications in the research on companies in the financial sector. Namely, due to the industry specifics, it is not possible to get into sample matched partners, while many contacted corporations and startups express willingness to stay anonymous, being reluctant to share the collaboration partners. Furthermore, corporate-startup collaborations serve strategic purposes of partnering organizations and serve as a source of competitive advantage, which inhibits the willingness to share detailed information on the collaboration process.

Thus, an alternative cross-sectional research design was chosen, considering such limitations. Although it does not allow such an in-depth analysis of collaborations and partnering organizations, the cross-sectional design is well suited for exploration and descriptive analysis of the research phenomenon (Eriksson & Kovalainen, 2015, p. 29). Using a cross-sectional research design implies that the data is collected approximately at the same point in time from multiple participants in order to gain a broad range of responses on the topic of interest (Creswell & Creswell, 2018, p. 246). Considering the limited resources, employing such research design allows to bring more participants to the study as opposed to the multiple-case study design. Thus, the cross-sectional design is better aligned with the exploratory purpose of the research, gathering a broader range of experiences and opinions on corporate-startup collaboration.

3.1.2 Sampling strategy

The sampling strategy was deliberately chosen to serve the purpose of the research and fit the chosen research design. Thus, a purposive sampling strategy was used in the research, which implies selecting a sample from a population in a strategic way, so that sampled units have "a direct reference to the research question" (Bryman, 2012, p. 416). It is essential to highlight, while the current study applies the purposive sampling strategy, the research does not aim for any generalization to the population (Bryman, 2012, p. 418).

The target population for the current research consists of all corporations and startups in the Austrian financial sector, which are/were in the past engaged in collaboration as well as those, which are currently establishing new partnerships. While initially, the research aimed to investigate only the existing partnerships, throughout the research process, it was decided that terminated partnerships, as well as only establishing ones, might provide valuable insights on the success factors and contribute to the findings. In addition to the collaboration parties, the target population includes companies operating in the startup ecosystem, which have an indirect influence on the collaboration process. Since the focus is placed on the phenomenon exploration, specifically in Austria, one of the key boundaries for the target population is a presence on the Austrian market.

While the information on collaborations is frequently available only upon the request, the total population size could not have been defined in the pre-study phase. Potential population members were identified via publicly available information. Further, during the empirical part of the research, all the established startups operating in Austria, as well as major financial corporations, were contacted with a request to provide information whether they have experience in collaborations or have an intent for such partnerships. Further, the third parties were identified through the analysis of white papers and reports on the topic. Based on the information gathered via research, and direct communication, with adjustment to a high non-response rate, the target population is estimated to reach approximately 60 companies in total.

Among the recommended for qualitative research sampling strategies, a combination of stratified purposive sampling and typical case sampling and is used in the research, which implies selecting individuals, which exemplify a dimension of interest within subgroups of interest (Bryman, 2012, p. 419). A combination of such sampling strategies requires using a two-level sampling procedure. Such a procedure allows to define a selection of subgroups relevant to the study on the first level and then choose the relevant participants within each subgroup (Bryman, 2012, p. 416).

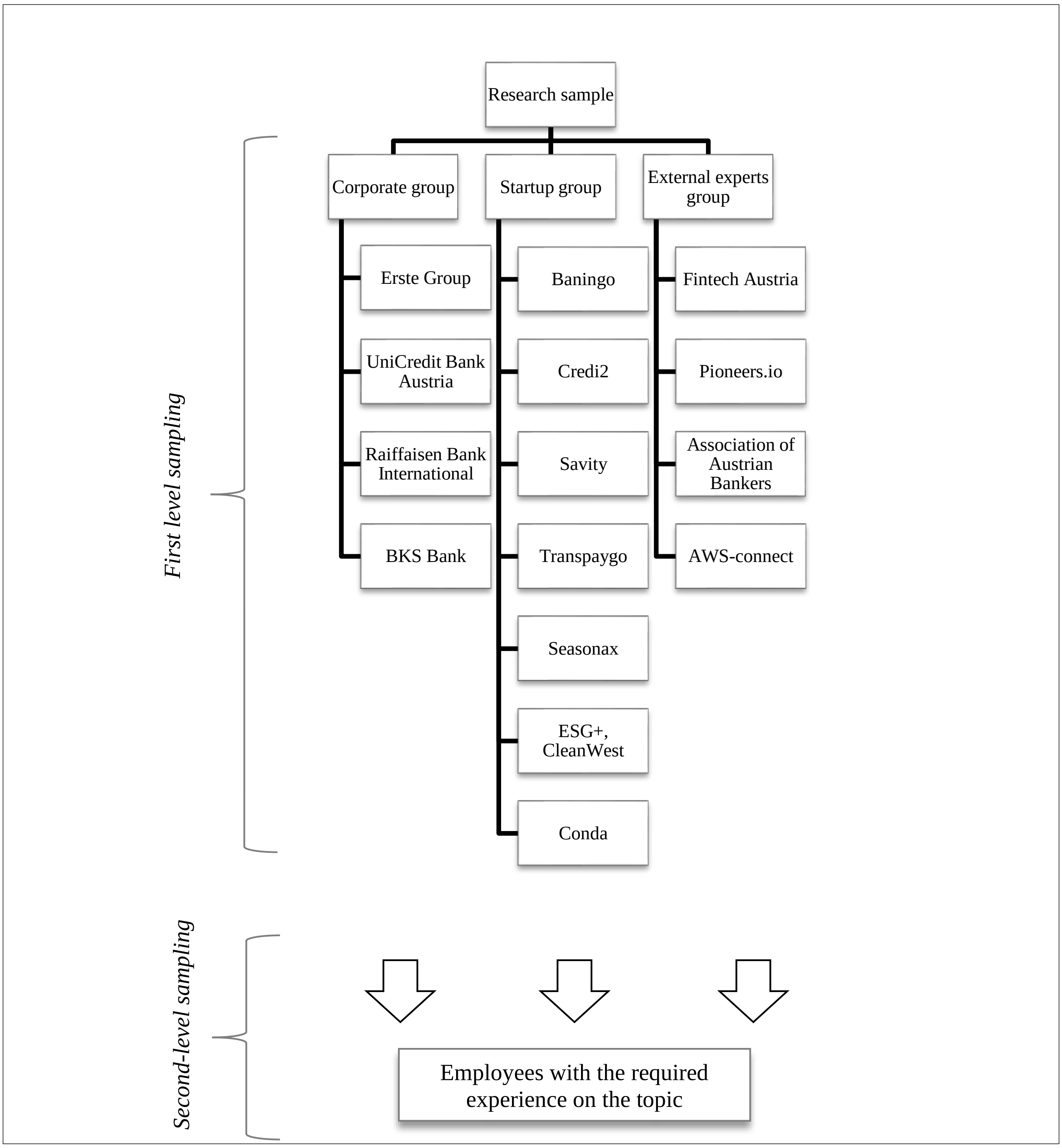
For the current study, three subgroups of units are defined on the first level sampling, which is represented by the two partnering sides in the collaboration process and the experts in the field, which are indirectly involved in the process.

The first sample group includes corporations in the Austrian financial sector. Following the working definition of a corporation, which describes „a business entity that legally exists separately from its owners - shareholders, who elect a board of directors to oversee the organization's activities," the sample group would include only the companies which operate in the financial sector and are listed on the stock exchange.

Further, using a typical case sampling strategy, the banks are taken as the most relevant to the research financial institutions, while there is no clear evidence in the analyzed literature one the other financial organizations engaged in a corporate-startup collaboration process. The literature findings were confirmed during the empirical stage – contacted insurance and audit companies in the Austrian financial sector either confirmed the absence of partnerships with startups or provided no response. Furthermore, selecting banks into the corporate sample group has a strategic motivation behind it. In particular, banks as financial institutions are recognized as highly regulated corporations, due to the industry legacy and the track record of the previous financial crises. Thus, investigating the experience in partnerships between banks and startups can potentially reveal the set of challenges and success factors, characteristic specifically for the financial industry. Moreover, the demand for corporate-startup collaboration in banking is rising - according to the recent reports, nearly 80% of the surveyed banks highlight collaboration with startups as the leading innovation strategy (Capgemini et al., 2018, p. 25; Finextra Research, 2019, p. 7).

While there is a sound number of banks operating in Austria, the pre-study research using both scholars and resources from the web has shown that major collaboration players are the leading bank groups. Thus, the preliminary sample group included four leading Austrian banks by employees and total assets: BAWAG P.S.K, Erste Group Bank, Raiffeisen Bank International, UniCredit Bank Austria (Statista, 2019, p. 1). The final sample, presented in Figure 4 includes the three aforementioned banks, namely Erste Bank, RBI, and Bank Austria. Besides, on the empirical stage of the research, a considerably smaller bank (BKS Bank) was included in the sample in order to gain another perspective on the collaboration process and investigate potentially differing challenges and factors the bank considers to be important for successful collaboration.

Figure 4 Two-level sampling procedure



The second sample group is represented by the startups as the second collaborating party. Using a typical case sampling strategy, fintech startups, which focus on the technology in finance, were taken into the sample, while these are considered as the key potential partners for collaboration. Similar to the previous group selection, motivation behind selecting fintech startups are rooted in their rising importance – fintechs are growing in number rapidly since the majority of trends in the financial industry are driven by technological change (Arslanian & Fischer, 2019, pp. 3–5; Klus et al., 2019, p. 5). Furthermore, selecting fintech startups has a value for the research since a great focus is placed on the industry specifics and impact on the collaboration process.

In the early stages of the research, only the startups partnering with the selected banks were planned to be selected into the sample. Using such a sampling criterion would have improved the subsequent data analysis, providing the research with complementary data from both partnering parties. However, throughout the research process, it was identified that the existing reports overestimate the intensity of collaborations and partnerships in the Austrian startup ecosystem. Besides, the boundaries of existing collaborations go beyond the Austrian financial sector. Thus, both sides have partnerships all over Europe, which are not in the scope of the research. Furthermore, the aforementioned industry specifics have a particular footprint on the willingness for information disclosure, whereas in particular cases, the collaboration partners preferred to be not mentioned for strategic reasons.

Therefore, the second sample group includes six Austrian fintech startups, four out of which have sound experience in collaborations with both Austrian and International corporations, and the other two are currently establishing the initial partnerships. Gaining insights from experienced collaborators and new to the scene ones is important for the understanding of the obstacles for collaboration on the different stages. The final sample includes Baningo GmbH, Savity Vermögensverwaltung GmbH, Transpaygo Ltd., Credi2 GmbH, ESG+ GmbH, and Seasonax GmbH, Conda Crowdinvesting Austria GmbH.

The third sample group includes external parties, which influence corporate-startup collaboration indirectly. While the population of such third-party companies is limited to five-six organizations, the final sample includes four entities in this subgroup – Pioneers.io (startup300 AG), FinTech Austria, Association of Austrian Bankers, and AWS Connect service. Pioneers.io is the leading consulting organization in the corporate innovation field, having an established Pioneers Discover division, which plays a facilitation role in the corporate-startup collaboration process (Pioneers.io, 2019b, p. 1). Further, FinTech Austria was selected as a non-profit organization, which is an active contributor to the Austrian fintech ecosystem, playing an important role in community development and cooperation facilitation (Fintech Austria, 2019, p. 1). AWS Connect provides corporate-startup matchmaking services, which facilitate initial contact and start of collaboration (Austria Wirtschaftsservice, 2020, p. 1). The Association of Austrian Banks and Bankers represents the interests of Austrian corporations, providing supportive services in the direction of education, sustainable finance digitalization, and legislation (Bankenverband, 2020a, p. 1).

The second level sampling defines particular participants within the chosen organizations (Bryman, 2012, pp. 427–428). For anonymity and data protection reasons, the exact titles of job positions, as well as the names of the research participants, are omitted in the published research documentation. However, it is important to highlight that from each sample subgroup, only those organization members are taken, which corresponds to the key sampling criterion – having a direct connection to the collaboration process.

In total, the sample size of 15 participants was reached, which does not deviate from the initial target. Since there is no joint agreement in the research methodology literature on the required sample size in the qualitative research, the sample size can be justified by reaching theoretical saturation (Bryman, 2012, p. 425). Considering that the total population of corporations and startups in the financial sector in Austria is only slightly larger than the selected sample size, the theoretical saturation is expected to be reached, since another added participant is not expected to bring a significantly different perspective on the research topic (Bryman, 2012, p. 421).

3.2 Data collection

3.2.1 Data collection method

Since the research has an explorative purpose and aims to deepen and complete the gaps in the existing knowledge, semi-structured in-depth interviews are selected as a data collection procedure. The semi-structured type of interview was chosen over unstructured, while a clear scope and a framework were developed based on the literature findings. Semi-structured interviews allowed to cover all of the aspects and concepts examined in the literature review while providing participants with the flexibility to elaborate on the questions (Bryman, 2012, p. 471). Chosen data collection method also allows to address the new issues and perspectives, which were not considered in the theoretical part of the research, but might be brought up by the interviewee in the course of the interview (Bryman, 2012, p. 472).

Conducting semi-structured interviews requires a pre-developed interview guideline, which brings structure to the interview process and helps the researcher to steer the conversation in the right direction (Bryman, 2012, p. 471). Since the research examines three sample groups, different interview guides were developed according to the subgroup interviewed, so that the questions address the collaboration phenomenon from the right perspective (Appendix A). Thus, while keeping the general structure and concepts, the interview questions were adjusted to each subgroup described above, in order to cover the differences in the perspectives of each party and answer the research questions.

The interview guides were constructed based on the literature review and developed a conceptual framework in order to ensure that all the relevant aspects are addressed during the interview process. Thus, developed interview guides include objectives for collaboration, collaboration models, success factors for collaborations, and future outlook. Further, following the recommendations proposed by Hennik et. Al., interview guides have a typical structure – introduction from the researcher side, opening questions to the research participants, key questions, and the closing part (2011, pp. 112–116).

Despite the established structure and themes in the interview guides, semi-structured interviews allow a large extent of flexibility in the order the questions are asked and question phrasing. As suggested by guidelines for the qualitative research, the interview can deviate to a large extent from the pre-determined guideline, as the researcher might follow the new order considering how the themes and topics arise in the interview (Hennink et al., 2011, pp. 112–114). Even though the established structure was not always followed, the main topics have been covered in all the interviews conducted.

3.2.2 Recruiting research participants

After the sampling strategy was finalized, organizations that fit the selection criteria were identified. Further, using the information on companies' websites, LinkedIn pages, the respective employees were searched for and contacted primarily via LinkedIn or work e-mail address. An introductory message was sent to the research participants which potentially belong to the target population, requesting to confirm whether their organizations fulfill the criteria for the study have required experience in the corporate startup-collaboration.

In the case of a positive response, the interviewers received a personalized interview invitation with an opportunity to select a suitable date and communication mode. Offering flexibility to the research participants is an important step in qualitative research since the interviews are frequently very time consuming, which might inhibit the participant's willingness to take part in the research.

While the contacted participants were outside of the researcher's professional network and obtain managing positions in the organizations under the scope of the research, a common issue was receiving either negative response regarding the interview opportunity or no response provided to the interview invitation. In case of no response, several measures were undertaken. Namely, participants were contacted with a follow-up e-mail; other employees from the respective organizations were approached with an interview request; participants were reached with the help from researcher's personal and professional acquaintances; two informative posts were published on LinkedIn to inform the network about the ongoing research with a call to approach the researcher. If, after the undertaken measures, there was no response from contacted companies, no further attempt was made, and these organizations were excluded from the sample. If the research participants provided a positive response, the interview date, time, and mode were set up.

3.2.3 Data collection procedure

The data collection procedure has been changed in the course of the research due to the restrictions imposed on society in response to Covid-19. Initially, the interviews in the face-to-face setting were planned, while this is preferred and recommended mode for qualitative semi-structured interviews (Bryman, 2012, pp. 668-669). However, due to the social distancing recommendations and restrictions on face-to-face contacts, as well as the geographical distance between the researcher and the respondents and travel restrictions, all the interviews were conducted via phone or through online communication channels. The research participants had an opportunity to select a preferred channel. Thus, the interviews were conducted via Zoom, Google Meet, Microsoft Teams Meeting, Skype, or WhatsApp. The majority of the interviews were held as voice calls, though two participants expressed willingness for video communication.

It might be argued that phone and online interviews are less effective in qualitative research. For instance, one of the major concerns is that there is no possibility to observe the participant's body language and non-verbal communication (Bryman, 2012, p. 488). Nonetheless, given current study focus and research questions, understanding the interviewees' feelings and emotions does not play a critical role in the explored phenomenon. Another issue which arises in online interviews is potential technical difficulties, such as inadequate connection speed and quality, or connection loss during the conversation, which inevitably harms the data collection process and interview atmosphere. Overall, there were no significant problems encountered, except for two interviews, which were interrupted due to connection issue and resumed again. Further, conducting interviews over online is associated with the poor quality of audio recordings. In the majority of recorded interviews, the participant responses have lower volume and speech clarity, which would not occur in face-to-face conversations.

Regardless of the aforementioned challenges brought by online and telephone interview modes, the positive effect on the research offsets the downsides of the used communication channels. To start with, online interviews provide flexibility to the research participants. Considering the chosen sample participants' positions in the organizational hierarchy and the scope of their responsibilities opportunity to conduct phone/online interviews anticipates the unavailability of interviewees or the time constraint for the face-to-face interviews. During the participant recruitment stage, the majority of the respondents admitted the limited availability for the interview due to the tight work schedules. Furthermore, four interviews have been rescheduled from the initially planned date and times shortly before the arranged calls. In such cases, employing an online & phone interview approach allowed to adjust to the research partner's agenda and new circumstances quickly and effortlessly.

Besides, some researchers suggest that conducting interviews via phone &online calls can reduce the stress for the interview partners. Particularly, Bryman identifies that the quality of the answers might be improved, while the interviewees may feel more comfortable if the interviewer is not physically present (2012, p. 488).

While no interviews were conducted face-to-face, it is not possible to compare the interviewer's responses and behavior versus face-to-face setting. However, comparing the video sessions and audio calls, no substantial difference was noticed between the response quality, length of the interview, and non-verbal communication.

The 15 interviews held have lasted between 20 and 60 minutes. Each interview has been started with an introduction part, providing to the interviewee a brief summary of the researcher, educational institution, the purpose of the study, interview objectives, and non-goals. Each interviewer was notified that the interviews are recorded for further accurate data analysis in the research process. While the fact of being recorded might negatively influence the interviewee's behavior and responses, each participant was informed that the recordings are treated confidentially, presented to the research institution but would not appear in any published documentation (Bryman, 2012, p. 146). Furthermore, interviewees were informed that they might refuse to answer specific questions for confidentiality reasons. In the interview closing part, interviewees were offered to receive a copy of the study once it is completed.

The interviews were transcribed right after they were conducted in order to minimize mistakes during the transcription process. The speech is transcribed verbatim word-to-word, omitting only certain sounds, noises, false starts, and speech distractors. Furthermore, non-verbal communication, such as gestures, smiles, long pauses, has been stated for better data interpretation in further analysis. Similarly, in order to facilitate future data analysis, German words and professional slang are explained in brackets.

While there has been a broad discussion in the literature regarding the necessity of verbatim transcription, it certainly brings the researcher "closer" to the data and enhances the following data analysis (Halcomb & Davidson, 2006, p. 40). Although verbatim transcription is a very time-consuming method, using automated voice recognition software such as Temi and Amber Script has significantly facilitated the transcription process. Additionally, each transcript was checked and corrected manually in case of inadequate transcription. Further, manual transcription was required when the recording parts were not auditable due to technical malfunctioning.

In order to ensure consistency in the transcription process, the set of major rules suggested by Kuckartz was applied for all interviews (Kuckartz & Rädiker, 2019, p. 42). Each transcribed file contains the explication of the transcription rules used in the process and transcription key. In addition, each transcript document contains information on research participant, organization, sample sub-category, interview date, time, and mode of communication.

3.3 Data analysis

Subsequently, after the interviews were transcribed, the coding procedure was applied to reduce the large sets and complexity of the empirical data. Coding is the most widely applied in the qualitative research procedure for data analysis, being the first step towards concept or theory generation (Flick, 2014, p. 11; Maxwell & Miller, 2013, p. 465). It entails labeling the parts of the data, which might have a significance to the research and provide the researcher with the valuable inputs (Bryman, 2012, p. 568).

In order to maintain consistency in the methodological approach to coding, after a careful review of the existing works, a manual developed by Saldana was used as a basis for coding procedure.

Starting with coding, a general approach had to be selected between deductive, inductive, or mixed approaches. While deductive coding allows applying the pre-defined list of codes to the data, focusing on the issues that are already known from the literature review, it is best used for more explored topics with sufficient preceding research on the topic (Skjott-Linneberg & Korsgaard, 2019, pp. 13–14). In contrast, inductive coding implies the development of emergent, data-driven codes from the transcripts (Saldaña, 2013, p. 65). Considering that the current study has an exploratory purpose and investigates a rather new phenomenon, inductive coding was selected as the most suitable approach. Employing inductive coding leads to more thorough data analysis, bringing attention to new factors and aspects not considered before, capturing all the essential ideas and issues (Saldaña, 2013, p. 65).

Further, following a standard data analysis procedure in the qualitative research, coding was performed in two cycles (Gioia, Corley, & Hamilton, 2013, pp. 19–20; Saldaña, 2013, pp. 58–59). Each cycle requires specific coding method selection, which would best suit to the research. Saldaña suggests that the choice of the coding method might be based on the research questions. Thus, for epistemological questions aiming to explore certain aspects of the phenomenon of interest, such as the ones guiding current research, the most suitable coding methods would be descriptive or initial coding, domain, pattern, or theming coding (Saldaña, 2013, p. 61). Furthermore, Saldaña suggests using multiple coding methods combined, depending on the researcher's consideration (Saldaña, 2013, p. 60).

Therefore, after review of the available coding methods, descriptive coding was chosen as a primary method employed in the first cycle coding. Using descriptive coding, the researcher summarizes the topic of the particular data set in a short phrase or a single word (Saldaña, 2013, pp. 87–88). However, as descriptive coding produces the codes which label the topics and not the content itself, it is usually considered insufficient for the detailed data analysis (Saldaña, 2013, p. 88,91).

Hence, subcoding was applied to generate more detailed codes and facilitate comprehensive analysis in the future steps of the research. Subcoding was used, as it is recommended for the studies with multiple participant groups and aspects of the research phenomenon investigated (Saldaña, 2013, pp. 77–78). After the descriptive codes have been assigned, the data was labeled with subcodes, which allowed to make the data analysis more detailed and bring the initial structure to the first-cycle codes. Seldom, the simultaneous coding, which implies assigning two or more different codes to a single part of the qualitative data was used (Saldaña, 2013, pp. 80–81). Namely, it was necessary to apply simultaneous coding to the particular data sets, which had multiple meanings that required to be highlighted.

Besides the selection of the major coding methods, the researcher was guided by a general rule of continuous review and cross-comparison of the codes developed for each data set and the concepts revealed in the literature review. Thus, obtained codes have been reviewed and modified during the analysis of new and revision of the old data in the research process. Modifying codes in the iterative manner allowed to ensure consistency, unbiased interpretation of the empirical data, and track when the data reaches theoretical saturation (Bryman, 2012, p. 420). Coding was completed in the NVIVO software, which has considerably facilitated the first cycle coding process, as well as further data organization.

The first cycle coding has resulted in 221 codes, reflecting a large amount of data and the variety of aspects of the corporate-startup collaboration phenomenon. The final codes are listed and presented in the codebook in Appendix B. As highlighted by Gioia et al., a vast amount of first level coding is challenging to manage, thus further categorizing and grouping is needed to proceed towards conceptualizing the data (Gioia et al., 2013, p. 20). Therefore, to smooth the transition between the first and second coding cycles, tabletop categories were developed to structure and organize a vast number of codes, as suggested by Saldaña (2013, pp. 204–205). Grouping similar codes based on the relationships between codes resulted in the development of multiple categories and sub-categories of codes.

Following the transitional “after first cycle coding,” the second cycle involved further analysis and reorganization of code and categories according to the context. The general aim of the second cycle coding was a formulation of themes and concepts from the developed categories (Saldaña, 2013, pp. 207–208). As the guiding coding strategy for the second cycle, pattern coding was used, which was considered to be most suitable for the current study. Through pattern coding, the data is organized into more meaningful units based on patterns and relationships identified between the first cycle codes (Saldaña, 2013, pp. 209–210).

The further analysis and interpretation of the themes and overarching categories were used to present the concepts and complement the existing theoretical knowledge on the explored phenomenon.

3.4 Research ethics and trustworthiness

3.4.1 Anonymity and confidentiality

One of the issues, which has arisen in the data collection stage is anonymity. Anonymizing the research participants is a frequently employed measure in qualitative research, regardless of the degree of vulnerability and sensitivity of the topic or data provided (Saunders, Kitzinger, & Kitzinger, 2015, pp. 617–619). Since the research is investigating the strategic partnerships between corporations and startups, it was reasonably expected that the research participants might not be able to or willing to disclose certain information and details of the collaboration process. Therefore, on the recruitment stage, as well as during the interviews directly, the respondents were offered partial anonymity, so that their identity cannot be directly traced back. It implied anonymizing the names and job positions while presenting the sample and research findings. Offering anonymity had no substantial adverse effects on the research. In contrast, it helped to recruit participants, while many demonstrated willingness to participate in the research as long as they stay anonymous. Furthermore, it had a positive impact on the general atmosphere during the interview, while the respondents could share their opinions and experiences freely.

In addition to the anonymization, interviewees were notified in the introductory part of the interview that they could refrain from answering any question they are not able to or not willing to speak about, without further explanation. Besides, frequently during the interviews, participants have requested not to use certain phrases and sayings as direct quotations, which was welcomed with understanding from the researcher side. All the data collected from the respondents in the interview process is treated confidentially, cannot, and will not be disclosed to the third parties without permission.

3.4.2 Reliability and validity

As concepts of validity reliability do not exactly apply to the qualitative research, the current study is evaluated based on trustworthiness criteria, as suggested by Guba and Lincoln (Guba and Lincoln, 1994, as cited in Bryman, 2012, p. 360). The trustworthiness of the study is evaluated using four criteria described below.

The credibility of the research is often associated as a corresponding term to “internal validity” and refers to the confidence in the findings, their objective, and truthful presentation and (Guba, 1981, p. 80,84). To ensure the credibility of the findings, the researcher opted for member validation as the most suitable approach. Thus, the interpreted data was presented to the research participants for the additional check, in order to confirm that the researcher has grasped the meaning of the data accurately.

Transferability, which is synonymous to the external validity and generalizability, refers to the possibility to apply the study in alternative settings to a certain extent (Guba, 1981, p. 80,86). Although qualitative research is not aiming for generalization, it is important to ensure that research findings would still be applicable in different contexts or time frame. The transferability of the findings was ensured by providing a sufficient description of the participant organizations – the “thick description” of context for data collection as recommended by the authors (Guba, 1981, p. 86). Furthermore, the authors have recommended using purposive sampling as an effective measure to enhance the transferability of findings (Guba, 1981, p. 86). Thus, the choice of strategic purposive sampling strategy in the research helped to maximize the range of information revealed during the data collection.

Dependability corresponds to the ability to obtain the same findings if the research is repeated in the same context with the same participants and employing the same methods. It can be ensured by establishing the so-called audit trail, which entails deliberate documentation of the research process so that any external to the research individual could examine the research process (Guba, 1981, p. 87). To meet this criterion, the current study provides a detailed analysis of the research methodology, presents documentation of the empirical data, including interview guides, codebooks in the published version of the research, as well as interview recordings and transcripts, available only to the examiners of the study results.

Confirmability, or neutrality of the research, requires maximum objectivity from the researcher's side (Bryman, 2012, p. 362). In order to ensure that the findings are derived from the collected empirical data and not from the author's own beliefs and assumptions, the researcher the results and findings were continuously compared to the codebook and transcribed data. Further, the findings were carefully examined by the research supervisor, aiming to reduce the researcher bias in data interpretation.

4 Empirical Findings

4.1 Corporate-startup collaboration in Austrian Financial Sector

4.1.1 Preconditions to collaboration

Observing the development of the financial services sector in Austria, it can be inferred that the upwards trend in the number of corporate-startup engagement may be attributed to four interconnected factors – Open Banking revolution, fintech startups emergence, growth of the supporting ecosystem and regulatory environment change.

Among the observed industry trends, the future of financial services worldwide and in Austria, in particular, develops in the direction of Open Banking, which can be described as a new industry paradigm (Bankenverband, 2019, p. 10). It entails cooperation between multiple players, including traditional banks and fintech startups, which jointly create products and services through usage of tech platforms, sharing knowledge, and access to the data and customer base (PwC, 2020, p. 1). Experts recognize different reasons behind the shift towards Open Banking, including customer-, competitor- and regulatory-driven strategy change (PwC, 2020, p. 1).

Changing customer expectations and new market trends pose one of the biggest challenges for the industry incumbents and traditional corporations, playing a key role in the industry transformation towards Open Banking. Research reveals that growing customers' demands for service personalization, e-payment solutions, advanced and seamless service delivery, and high response speed from the service providers serve as the main driver for industry innovation (Capgemini et al., 2018, p. 9). According to the report findings, change from a company-centric view to customer-centricity is the primary goal on the global financial sector agenda, as it is considered to be a vital prerequisite to successful competition over the long run (Capgemini et al., 2018, p. 9). This view is supported by experts from the banking sector, recognizing that concentration on customer needs is essential to succeed (C1, personal communication, May 10, 2020). Hence, research participants confirm that changing customer preferences serve as a key driver behind collaboration in the financial services industry (ST1, personal communication, April 4, 2020).

Increased industry rivalry caused by the emergence of new competitor ventures can be perceived as another push towards Open Banking. Rising customer demands and expectations evoked the growth of the financial technology firms, which disrupt the industry on multiple fronts. The financial services industry has been settled for a long time, with the limited and incremental changes introduced to the customers. Hence, the main services and business models have remained untouched for a long time (PwC, 2020, p. 1). It has changed as agile, innovative, customer-focused, fintechs entered the market, being a potential threat to the traditional corporations, endangering existing corporate business models (Bambrough, 2018, p. 1). Fintech startups disrupt traditional financial services across five major fields, including digital payment, insurance and banking, wealth management, and regulatory environment (Table 4).

Besides, the disruptive technologies brought to the market by fintechs and "challenger banks" increase the variety of offerings accessible on the market, delivering highly responsive, transparent and personalized services, which reinforce rise in the customer expectations towards the level and quality of financial services provided by traditional organizations (Capgemini et al., 2018, p. 16, C1, personal communication, May 10, 2020).

Table 4 Fintech coverage of the subsegments of the financial sector in Austria

Niche	Abbreviation	Description	Representative fintechs in Austria
Digital payments	PayTech	Focus on the transaction technologies	Dao Pay, Credi2, Paysafe
Digital insurance	InsurTech	Startups, moving a complete package of insurance services to the digital economy	Bsurance, Insurista
Banking	BankTech	Focus on retail banking, providing money management, international money transfer, lending solutions (Peer to Peer in particular)	Transpaygo, Finnest, Fonmoney
Wealth management	WealthTech	Focus on online investment management, providing platforms and technologies for online trading and asset management	Savity, Seasonax, Conda, ESG+, BitPanda, Morpher, Wikifolio
Regulatory environment	RegTech	Focus on the regulations and legal aspects of the financial sector, providing solutions which facilitate compliance	Kompany, BlockPit

Note: The names of the fintech fields and respective descriptions are adopted from Bose et al (2018, p. 15). The last column provides only separate examples of the existing Austrian fintech startups to give the reader better understanding of the business activities in each field (Fintech Austria, 2020, p. 1; Ngo, 2019, p. 1)

Following the boom in the fintech scene, many professionals predicted that agile and innovative startups, disrupting the industry, set “the beginning of the end” for the traditional banking era (ACCA, 2016, p. 4). “There was always this notion that fintechs are taking away market share, attacking the traditional companies” (TP3, personal communication, May 15, 2020). However, the most recent experience shows that despite fintech startups' growth drives the competition in the industry and entails an increased focus on innovation, they are not likely to annihilate the power of traditional corporations (TP1, personal communication, June 15, 2020). “They realized that they need a bank as much banks can benefit from them” – indicate innovation experts from the corporate side (C2, personal communication, May 13, 2020). Contrarywise, startup growth allowed focusing on Open Banking as a new way to develop the industry. Bose et al. concluded that both fintech startups and industry incumbents have complementary sets of competitive advantages and drawbacks, which indicates that success can be achieved through productive collaboration rather than intense rivalry (Capgemini et al., 2018, p. 36).

Increased interest from both parties for collaboration is complemented by the growth and development of supporting ecosystems, which entails the emergence of secondary institutions that provide advice and support services to the collaboration players. The World Fintech report highlights that a robust supporting ecosystem is critical for successful collaboration in the industry, which is supported by the research participants from the startup side (Capgemini et al., 2018, p. 36).

The development level of the Austrian fintech ecosystem can be assessed differently. On the one hand, according to the recent startup ecosystem ranking report, generally Austrian startup scene is losing its attractiveness, in comparison to the other countries. As of 2019, it has 28th position in the top 100 countries worldwide, lagging behind 16 European countries, including such innovation leaders as UK, France, and Germany (StartupBlink, 2019, pp. 16–17, 49). On the other hand, the ecosystem is actively developing as new institutions and programs are created to support innovation and industry growth. The majority of research participants shared positive opinions regarding the progress made in the Austrian ecosystem over the past years. However, experts acknowledge that the progress is slower in comparison to the leading innovation countries and startup ecosystems, and there is a large gap between the set expectations and current state to overcome (TP3, personal communication, May 15, 2020).

Nevertheless, one of the positive trends observed in the fintech ecosystem is globalization and the internationalization of the working environment. Namely, Austria attracts talented entrepreneurs from all over the world, which brings innovation spirit to a rather conservative cultural setting, which enhances innovation in the local ecosystem (TP3, personal communication, May 15, 2020).

Globalization trends and membership in the European Union are reflected in the interconnectedness of Austrian and neighboring fintech ecosystems. Analyzing the collaboration experience and future strategies of the participating organizations, one can conclude that corporate-startup partnerships are not limited to the country boundaries. Contrarywise, corporations, and fintechs reported collaboration experience with the partners from CEE countries, Western Europe, Germany being the biggest market for partnerships. First and foremost, corporate experts highlighted that in such a global environment, there are no preferences nor discrimination against the country of incorporation of the startup (C1, personal communication, May 10, 2020).

However, considering the presence of a forward-developed fintech ecosystem in Germany, it occurs that a large share of the current partnerships falls on German startups. Experts share that more fintechs are being created in Germany than in Austria, which after pilot projects in the home country, seek partnership opportunities in Austria, as it is “the easiest market to scale afterward” (C2, personal communication, May 13, 2020). Hence, Austrian corporations become potential collaboration partners for most of the German fintechs seeking partnerships.

As for the startups' experience, founders share that since Germany is a larger market in contrast to Austria, it is much more attractive to establish partnerships with German corporations. Four out of seven startups in the research confirmed, that Germany is the most attractive market to enter, mainly due to the similarity of the regulatory environment, cultural background and consumer preferences (ST1, personal communication, April 4, ST2, personal communication, May 14, 2020, ST3, personal communication, May 28, 2020, ST7, personal communication, April 28, 2020). Besides, more corporates and startups recognize CEE countries to be a promising market to enter, due to the fast pace of development of the fintech ecosystem in the region (ST2, personal communication, May 14, 2020, TP3, personal communication, May 15, 2020).

Discussing positive trends in the corporate-startup collaboration in Austria, it is important to highlight that creation of new entities and supporting organizations have stimulated the growth of the ecosystem over the last few years (Raiffeisen Bank International, 2018, p. 8). Development and growth of research institutions, consulting firms, independent NGOs as system integrators, has helped to create the touchpoints between industry incumbents, startups, regulators, facilitating network development, and collaboration in the field.

Among the positive trends, experts recognize the establishment of Fintech Point of Contact in 2016 as a part of Financial Market Authority (FMA) intending to provide fintech ventures with the advice and clarifications regarding regulations in the sector and facilitate growth (Financial Market Authority, 2019, p. 3). Furthermore, an important step towards fintech growth was the formation of the Fintech Advisory Board, initiated by the Federal Ministry of Finance in 2018. Primary functions of the advisory board include the promotion of innovation-friendly laws and regulations to foster fintech growth and collaboration in the field (Raiffeisen Bank International, 2018, p. 8).

Besides, one of the important organizations operating in the financial sector is the Association of Austrian Banks and Bankers (VÖBB), which has an indirect influence on collaboration in the field. Among the wide variety of topics, the association is focusing on fostering digitalization in banking by offering the members of organization opportunities to connect to reliable partners (Bankenverband, 2020b, p. 1). In order to pursue this goal, VÖBB actively supports collaboration initiatives and events. For instance, Fintech Week, organized in 2018 by Fintech Austria, was supported by the Association of Austrian Banks and Bankers (Bankenverband, 2019, p. 14). Fintech Austria, mentioned above, is another important supporting organization in the Austrian financial sector. Founded with a mission to enhance the development of the fintech ecosystem and foster collaborative connections within the community, Fintech Austria has above 30 startup and corporate members (Fintech Austria, 2020, p. 1).

Aside from non-profit organizations, there are few companies in the Austrian startup scene which provide additional services fostering corporate-startup collaboration across different industries, including the financial sector. For instance, Austria Wirtschaftsservice provides matchmaking services to the corporates, startups, and investors, aiming to connect market participants to the right collaboration partners (Austria Wirtschaftsservice, 2020, p. 1).

Besides, several co-working spaces such as Talent Garden and weXelerate facilitate networking and community development, bringing together startup companies and established corporations (Raiffeisen Bank International, 2018, p. 9).

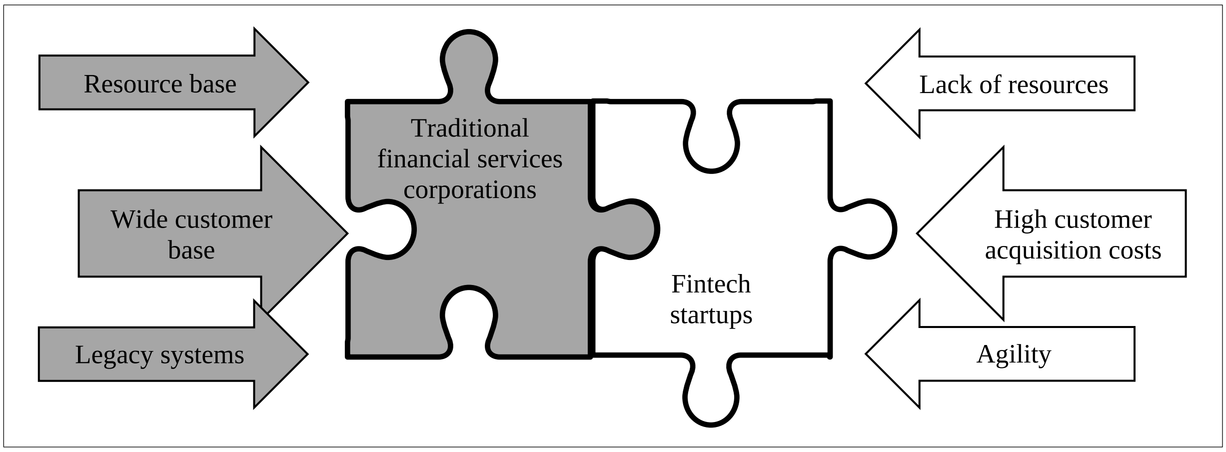
Furthermore, changes in the regulatory environment in the European Union and Austria, in particular, are viewed as another driving force for collaboration in the industry. Despite the increased regulatory control over the financial sector operations after the last financial crisis, in the past few years, many countries improved legislation to facilitate the entry of fintech startups to the market (Puschmann, 2017, pp. 69–70). One of the most crucial regulations introduced in EU countries in January 2018, is the 2nd version of the payment services directive (Finextra Research, 2019, p. 16). PSD2 reshapes the financial services industry, pushing banks to enable access to customer's bank accounts and payment execution to third-party providers like fintech startups (Deloitte, 2017, p. 9). Experts confirm that introduction of PSD2 opened multiple partnership opportunities for startups and traditional firms, fostering collaboration in the financial sector (TP3, personal communication, May 15, 2020).

Besides, a remarkable improvement has been recently made in Austria through the introduction of the regulatory sandbox. Experts from the third-party organizations shared that taking an example of United Kingdom, Austrian Ministry of Finance jointly with Financial Market Authority (FMA) and other regulatory bodies have been developing a project of the regulatory sandbox for the past two years (TP1, personal communication, June 15, 2020, TP3, personal communication, May 15, 2020). However, due to the government change and the outbreak of Covid-19 in spring 2020, the legislation was put on hold (TP3, personal communication, May 15, 2020). Following the recent news, on July 7th, 2020 the amendment to Financial Market Authority Act has been issued by National Council of Austria, which signifies that the regulatory sandbox will come into force on September 1st, 2020, if no opposition is expressed by the second chamber of Austrian Parliament (Schneider, Stephan, & Klepp, 2020, p. 1). It can be viewed as the last step towards the implementation of the sandbox, which opens multiple opportunities for the fintechs in Austria. Hence, provided that the amendment comes into force, from September on, Austrian companies would be able to test innovative business ideas under the FMA supervision, in order to prove the viability of the fintech solutions from the regulatory perspective, before considering large-scale projects (TP3, personal communication, May 15, 2020). Such progress made in the implementation of the regulatory sandbox is expected to ease the establishment of new partnerships between corporations and startups, enhancing collaboration in the industry (TP1, personal communication, June 15, 2020).

4.1.2 Strategic motives and objectives

The objectives behind collaboration have been changing over the past years since the boom in the fintech ecosystem in Austria. According to the experts, one of the key goals behind the first engagement with the startups was entering the ecosystem, introducing innovation to the corporate culture, and getting acquainted with the phenomenon of fintechs. However, as the number of collaboration activities has been growing, the trends have been shifting towards strategic partnerships, aiming to maximize the mutual value proposition and create a win-win situation for both sides (Figure 5). At the current stage, banks recognize that collaboration with no strategic objectives behind does not entail any positive outcome neither for them nor startups, which is reflected in the higher share of successfully working partnerships (C2, personal communication, May 13, 2020).

Figure 5 Collaboration as a win-win solution



Innovation through collaboration is indicated as the key purpose of corporate-startup engagement from the corporate side. While a decade ago, there has been an ongoing discussion about whether collaboration with fintechs is more beneficial than an internal innovation, responses from the corporate experts suggest that today Austrian banks consider collaboration as the best approach to innovation. Corporate managers indicate that in the majority of cases, companies possess sufficient resources to build the new solutions on their own (C2, personal communication, May 13, 2020, C4, personal communication, April 29, 2020). However, the legacy systems are holding traditional corporations back, leading to an increased willingness to partner with agile fintech startups (TP4, personal communication, June 3, 2020).

Analyzing the general objectives, first and foremost, the key motivation for corporations is shortening the innovation cycle and reduction of the time-to-market. The supreme advantage of fintech startups in contrast to corporations is the agility due to the absence of legacy systems (Capgemini & Efma, 2019, p. 17). High responsiveness and speed in product development are considered to be the highest value-added from the fintech side to the partnerships, since collaboration enables corporations to reduce innovation cycles (ST3, personal communication, May 28, 2020, C4, personal communication, April 29, 2020). Besides, fintech agility and narrow focus entail higher efficiency of the innovation process and cost optimization. Thus, considering financial objectives, it has been proven that any partnership model implemented occurs to be less expensive than in-house development, which serves as a side objective behind collaboration (ST3, personal communication, May 28, 2020).

Specific goals behind each particular collaboration differ, depending on the current corporate needs and available fintech solutions. Some partnerships are aiming to solve real internal deficiencies and tackle existing corporate business issues in the back office. Although the improvements on the backend do not have a clear, immediate impact on the customer experience and satisfaction, collaboration with B2B fintechs frequently allows to increase internal efficiency of the bank processes and introduce the edge technology to the standard banking services (C4, personal communication, April 29, 2020, ST1, personal communication, April 4, 2020, TP3, personal communication, May 15, 2020).

On the other side, plenty of collaborations are established between corporations and startups aiming to directly improve customer service level, increasing the product range, and improving specifications. Core service improvement is considered to be one of the key strategic objectives by corporate managers (C2, personal communication, May 13, 2020). Hence, most of the time, corporations are looking for startups that provide a complementary offering to the corporate core products and services (C2, personal communication, May 13, 2020). In seldom cases, banks also consider partnerships that can increase customer engagement with their offerings (C2, personal communication, May 13, 2020).

The uncovered motives behind collaboration from the startup side confirm the literature findings to a large extent. The key objective, reported by all the research participants, is scaling the business model and acquiring new customers at a fast pace, which corresponds to the nature of the startup. “We live from scaling” – reports fintech founder (ST1, personal communication, April 4, 2020). However, most fintechs struggle to scale without external support due to multiple inherent drawbacks profitably. In the majority of cases, Fintechs face challenges entering the market, gaining credibility and trust among customers and lack of the financial resources required to scale (ST1, personal communication, April 4, 2020, ST5, personal communication, April 22, 2020, ST6, personal communication, May 26, 2020). Recognizing the substantial customer acquisition costs in the financial sector as well as lack of brand reputation, fintechs consider that tying up with the industry incumbents as the most reasonable strategic decision (EY, 2017, p. 4). Besides, collaboration with the large banks with an international presence is the primary target of the most fintechs as it allows them to gain access to the large bank clients’ base across several markets and achieve the highest reach to the potential customers (C2, personal communication, May 13, 2020, C3, personal communication, May 6, 2020, C2, personal communication, May 13, 2020, ST3, personal communication, May 28, 2020).

As a side objective, startups highlight collaboration as an attractive way to overcome the disadvantages in terms of credibility and visibility of the brand on the market. Partnerships, if announced public, serve as a high PR and marketing campaign, enhancing the brand name of the startup (ST1, personal communication, April 4, 2020, ST6, personal communication, May 26, 2020, ST7, personal communication, April 28, 2020).

4.1.3 Prevailing corporate-startup collaboration types

The type and structure of collaborations exploited in the industry have evolved over the past years, following the startup ecosystem lifecycle. As the experts reported, the boom in the fintech scene in Austria has occurred around five years ago (TP3, personal communication, May 15, 2020). That time, following the rapid emergence of the fintech startups, corporations employed short-term partnerships, ideation events, hackathons, and startup challenges to make the first steps into the ecosystem and get acquainted with the external innovation process. However, the change in the objectives behind collaboration over the last years has led to the change in the structure of collaborations, shifting the focus from events, resource sharing, and business support activities to the long-term stable partnerships which fulfill the strategic innovation goals of the traditional banks. “Now every bank, or most of the banks, of course, know how the counterparty is working ... I am sure that we are talking about real projects nowadays, not just to get to know each other ones” – shares the respondent (TP1, personal communication, June 15, 2020).

All corporations in the current research highlighted multiple engagement types used in the collaborations, addressing each partner’s business model, value proposition, and organizational needs. After a careful analysis of the collaboration models used in the companies under the scope of the research, it was concluded that in the majority of cases, startups are flexible in terms of choosing the partnership model and delivering the solution. The shared opinions and experiences suggest that the engagement type entirely depends on the corporate strategic objectives and capabilities. Besides, according to the insights shared from the assisting organization in the collaboration process, the size of the corporation has a significant impact on the variety of collaboration models employed.

For instance, experience shows that the big banks with the international presence and sufficient resources can follow each innovation strategy available on the market, from short-term partnerships, corporate incubators, and accelerators to own CVC units within the corporation (TP1, personal communication, June 15, 2020). On the other hand, for smaller regional banks with a narrow customer base, long-term partnerships and strategic investments might not be feasible from the resource perspective. Hence, such small corporate players frequently consider smaller-scale partnerships, involvement in external incubators, and accelerators to grasp the innovation trends and receive the ideas regarding existing business issues (TP1, personal communication, June 15, 2020).

Events

Events in various existing forms have been reported to be a very popular type of engagement on the rise of the fintech ecosystem in Austria. As mentioned above, startup conferences, competitions, and pitching days have been widely organized to serve primary goals of getting acquainted with the innovation in the field. At this time, events in the fintech scene serve a goal of connecting the community members and offering networking opportunities, where startups can establish the first contact with potential corporate partners.

Corporate members express a favorable opinion regarding the events and activities organized in the field and support major initiatives with the frequent participation (C2, personal communication, May 13, 2020, C4, personal communication, April 29, 2020). Startup founders confirm that external support from the ecosystem, including matchmaking services, networking events, fintech conferences are necessary to implement, while they open opportunities for the startups to be seen and mentioned, which significantly increases the visibility of the startups on the market. Founders highlight: “They need to know about you. If they do not, you can have the best product and the best solution, but you will never get to a cooperation agreement” (ST3, personal communication, May 28, 2020).

However, analyzing the personal experience of the selected startups, research shows that only two out of seven fintechs have found their current collaboration partners through banking conferences, Fintech Week or participation in the external incubator (ST2, personal communication, May 14, 2020, ST7, personal communication, April 28, 2020). In the rest of the cases, collaborations have started as the founders were proactively approaching potential partners via structured channels organized by corporations or personal communication and search through professional social networks, such as LinkedIn. Further, founders admit that only in sporadic cases, partners have searched for the solutions themselves and initiated the contact with the fintech first (ST3, personal communication, May 28, 2020). Hence, the importance of matchmaking events and startup conferences needs to be reviewed and investigated further.

Nonetheless, one-off events such as conferences, meetings, pitching days, and competitions have a certain value-added to the collaboration parties, creating opportunities for strengthening the network in the sector. On the other hand, the importance of hackathons, which are suggested to be a popular engagement model in the startup ecosystem, is somewhat questionable for collaboration in the financial services sector. Based on the responses from the research participants, hackathons are not considered as an attractive engagement model anymore. Above all, it can be explained by the difficulties of tracking the outcome and effect of such an event. Considering the nature of such events, it attracts individual enthusiasts or the early-stage teams with no industry experience. Despite hackathons can spark an interest and lead to the creation of perspective fintechs, in the majority of cases, the solutions developed in such a short time are immature and fail to be proceeded with. Moreover, since collaborations require a certain level of maturity and experience, it takes a long time for the young teams to reach a sufficient maturity level to approach the corporations with the corporate partners.

Nevertheless, if the corporations or associations in the field still consider organizing hackathons, experts recommend ensuring that the organization is able to provide opportunities for further development of the best solutions with the help of a corporate partner (TP4, personal communication, June 3, 2020).

Business Support

Business support activities, such as corporate incubators and accelerators, are also a less popular form of engagement. However, experts in the field confirm that despite the trends are shifting towards strong long-term relationships as the fintech ecosystem matures, there is a demand for business support activities to the early-stage startups (TP1, personal communication, June 15, 2020). While such activities involve cooperation with the early-stage startups, not every corporation is considering it as the optimal collaboration strategy. Currently, only Raiffeisen Bank International has a strategic focus on engagement with the fintechs in the early stages of development, leading the biggest corporate accelerator and Bootcamp programs in Austria and CEE (Raiffeisen Bank International, 2020a). Elevator lab powered by RBI has three programs for the startups on different development stages, from single founders and seed-stage startups to mature global startups, which include Elevator Lab Bootcamp, Challenge, and Partnership programs respectively (Raiffeisen Bank International, 2020a). Despite the fact that other corporations do not have in-house business support programs, experts suggest that there is still a demand for external accelerators and incubators from the corporate side, which occasionally participate in such programs (TP1, personal communication, June 15, 2020).

Partnerships

As highlighted above, the most common collaboration models used in the industry on the current development stage are long-term partnerships. While startups offer full flexibility in terms of the minimum package and add-on services to each corporate partner, the engagement model is usually chosen by the corporation. Experience shows that selection of a specific type of partnership largely depends on the desired integration level and the product availability on the market.

For instance, if the solution is already available on the market, corporations opt for vertical partnership, onboarding the startup solution to the organization (C2, personal communication, May 13, 2020, C4, personal communication, April 29, 2020). Aiming for a minimum level of integration, corporations practice co-branding, connecting offering the fintech-provided services on their own platforms (C2, personal communication, May 13, 2020). Besides, commonly reported models to include licensing, revenue sharing, and referral fees.

Though, the most popular form of vertical partnership used by the participating organizations is a client-vendor relationship. Frequently it entails white-labeling of the startup solution, which is the commonly used practice, suggested by corporations to employ if the brand of the partner does not bring any value to the customers (C2, personal communication, May 13, 2020). From the fintech perspective, this option is frequently considered if the startup is not aiming to build a brand name among the customers (ST5, personal communication, April 22, 2020).

Alternatively, corporations opt for joint solution development if the required product is not yet developed on the market. Co-creation partnerships, as reported by the participating companies, require more extended time frames up to two years and a very high level of interaction and integration between the two parties (C1, personal communication, May 10, 2020, ST4, personal communication, June 15, 2020).

Corporate Venture Capital

The opinions regarding CVC differ among the research participants. On the one hand, all of the experts from the corporate side consider strategic investments into fintechs as an important aspect of the collaboration process. It allows corporations to gain insights into the market trends, scout for potential collaboration partners, and increase the value of established collaborations by investing in existing partners (C2, personal communication, May 13, 2020, C3, personal communication, May 6, 2020).

However, the strategies regarding strategic investments differ among corporations. Two out of four corporations in the research have an established in-house CVC unit. For instance, Raiffeisen Bank International has an established corporate venture capital entity – Elevator Ventures, which focuses on the early stage and growth investments in fintech startups, which are considered to be potential game-changers in the banking industry (Raiffeisen Bank International, 2020b, p. 1). UniCredit Group, which includes Bank Austria, also has a separate CVC unit – UniCredit Evo, which places focus on the mid-stage startups and mature fintechs following the group innovation strategy (UniCredit, 2020). Erste Bank and BKS Bank confirmed that since strategic investments do not belong to the core competences of the bank, the establishment of a separate investment unit within the corporation does not correspond to the key strategic objectives, and both institutions consider investments into separate VC funds.

As suggested by theoretical research, CVC is beneficial for startups. Founders highlight, that having a collaboration partner onboard as a strategic investor provides certain security in terms of collaboration and strengthens the partnership (ST3, personal communication, May 28, 2020). However, founders need to be careful considering the opportunity of getting strategic investors onboard, while VC funds might have conflicting interests with the strategic investors. Furthermore, having investors from one corporate venture capital fund might limit the startups' opportunities and possibilities to partner with the other organizations.

4.2 Perceived success factors for corporate-startup collaboration

Regulatory environment

The impact of the external environment has been proven to play an important role in the collaboration outcome in the industry.

The regulatory environment poses one of the biggest challenges to the collaboration parties in the Austrian financial sector. Having international representation and partnerships across multiple European countries, experts from the corporate side suggest that currently, Austria is lagging in many aspects, and there is a vast potential for improvement in terms of regulations. Hence, one can conclude that cooperation between the regulatory bodies, supporting organizations, and representatives from the collaboration parties is required to improve the current situation.

Research findings show that the overall trend of fintech ecosystem development has contributed to the enhancement of the collaboration processes. Such organizations, as the association of Austrian Banks and Bankers, Fintech Austria, serve as an important intermediary, connecting the critical stakeholders, including collaboration parties and government authorities with the aim to improve the environment for collaborations. Such organizations allow effectively translate current needs and requests from the corporate and startup side to the regulatory bodies, helping industry players to pursue innovation (TP1, personal communication, June 15, 2020).

Indeed, experts highlight that the joint work of all the stakeholders during the past year has resulted in a positive shift and more favorable regulations and policies (TP3, personal communication, May 15, 2020).

Industry setting

The complexity of the industry has a definite impact on the successful outcome of the collaborations. Research participants have identified several aspects related to the industry setting as important factors for successful collaborations.

A major issue in collaboration in the financial sector is high barriers to entry to collaboration. Analyzing the sample and the general statistics, most startups that partner with the corporates are on the mature stages (TP2, personal communication, June 17, 2020). Corporate innovation managers acknowledge that there is a very low likelihood for a startup on the ideation stage to get selected by the corporation for the long-term partnerships (C2, personal communication, May 13, 2020).

Hence, the most important criterion, which is associated with the successful establishment of the partnership, is the maturity of the fintech. Naturally, this statement does not apply to the engagement models such as corporate accelerators, which focus on early-stage startups and serve as the first entry point for the young fintech startups to reach the PoC and start searching for partners (C4, personal communication, April 29, 2020). However, for long term partnerships, corporate experts indicate that "the fintech needs to be mature enough to get into contact with a bank that is complex, quite difficult to interact with and slower in the decision making" (C3, personal communication, May 6, 2020).

First of all, corporations require the maturity of the solutions. It can be argued whether the startup needs to have an MVP, make a PoC, or have a working solution and first reference customers when approaching the potential partners. In the financial services, it is extremely difficult to approach a large corporation such as a bank without a product (ST5, personal communication, April 22, 2020). One of the founders has shared experience, that the startup was not able to proceed with the discussion as the solution was not ready at that point of time (ST7, personal communication, April 28, 2020).

Consequently, most of the experts suggested that collaboration in the financial industry is possible for rather mature startups with a working solution. The experience of the participating organizations shows that only one fintech has entered a collaboration with MVP, developing the product together with the corporation (ST1, personal communication, April 4, 2020). The rest of the research participants reported that as of the start of the collaboration, they already had a ready solution to offer.

Besides the maturity of the solutions, collaboration with the corporations requires a certain level of experience in the industry and understanding of how banking works (C3, personal communication, May 6, 2020). Analyzing the responses from all the research participants, one might conclude that most of the fintech founders have previous personal experience within the banking and large organizations. Experts suggest that awareness of the corporate complexities and knowledge of the internal decision-making processes contributes to the successful establishment of the collaborations (TP3, personal communication, May 15, 2020).

In some cases, having prior business relationships and working on other projects helps to establish new projects faster and easier (ST4, personal communication, June 15, 2020). Founders confirm that having experience in the partnerships allows to reduce the time frames and ease the hurdle with internal approvals, as most of the corporate partners have the same issues (ST2, personal communication, May 14, 2020).

Previous collaboration experience has another positive effect on the collaboration process. Given that there are very high entry barriers to collaboration with the industry incumbents having a good reputation is crucial. It might seem like a paradox since the startup environment a-priory contradicts the statement. Nevertheless, startups suggest that having a first reference customer increases the chances of starting new collaborations (ST3, personal communication, May 28, 2020). Hence, startups are recommended to approach smaller corporations, other fintechs, or online banks before partnering with the incumbent traditional organizations.

Purpose and objectives

Extensive attention is paid to the objectives behind collaborations. Besides clarity and well-defined goals, which are suggested by literature findings, experts highlight a range of other aspects to consider (ST2, personal communication, May 14, 2020).

First of all, successful collaboration requires a clear understanding and willingness from the corporate side to provide innovative solutions to their customers. Collaboration is a time and resource-consuming process for each party, which is especially tedious for the startups, considering their vulnerability and need for scaling to survive. Thus, when there is no defined vision of the desired collaboration outcome from the corporate side, the partnership can be stuck for months-long and never proceeded to the next phase (ST1, personal communication, April 4, 2020).

Furthermore, the objectives behind collaboration need to be set appropriately. One of the biggest pitfalls to avoid for corporations is aiming for "quick wins." Founders imply, that if a corporation enters into the partnership to get the innovative product, "submit the report to the board of directors" organize an excellent PR campaign and improve the brand image by being active in the startup ecosystem, such collaboration is destined to fail (ST2, personal communication, May 14, 2020). In contrast, corporate partners need to be committed and prepared to run the solution properly. Founders comment: "If they are not making use of it, you cannot force them," discussing the importance of the corporate partner readiness to dedicate time and resources to the partnership (ST2, personal communication, May 14, 2020).

Thus, one of the recommendations to the startups is finding the partner who aims for a serious collaboration, interested in providing innovative solutions for their customers, and ready to commit to the partnership (C2, personal communication, May 13, 2020). Besides, startups are advised to search for a partner ready for long-term commitment rather than a short-term relationship, as each partnership requires huge resource investment from the startup side (ST4, personal communication, June 15, 2020). "Choose your partner wisely" – is a golden rule for the startups entering the collaborations (ST4, personal communication, June 15, 2020).

However, experience shows that setting up collaboration is a complicated process; thus, startups are always recommended to approach multiple potential partners in order to increase the chances for a positive outcome (TP3, personal communication, May 15, 2020). In such a case, startups have to be careful whether corporations require exclusive right for the product use on the market, which might limit startup opportunities to partner with the other organizations (ST5, personal communication, April 22, 2020).

Besides strategic partner selection, in order to avoid the abovementioned pitfall, banks need to have an apparent problem, which needs to be solved (TP3, personal communication, May 15, 2020). Startups report that it is frequently difficult to make the corporations aware of their problems and internal needs in the discussion regarding potential partnerships (ST3, personal communication, May 28, 2020). Hence, in order to set successful collaborations, founders recommend ensuring that the corporation has a clear use case that needs to be solved. Otherwise, a startup can have a “perfect product and great value-added but never set up a collaboration” (ST5, personal communication, April 22, 2020).

After the particular problem has been identified, the bank needs to select the best third-party provider, which would have the required product and resources for cooperation (TP3, personal communication, May 15, 2020). “The partnerships start when both parties have a perfect fit between the problem and the solution” – highlights startup founder (ST6, personal communication, May 26, 2020). Experts from the corporate side suggest that having a set of essential requirements for the startup, which need to be fulfilled when starting the discussion is the first step towards selecting the right partner without wasting resources in discussions with wrong companies (C3, personal communication, May 6, 2020). A key requirement indicated by all participating banks and third-party organizations includes the presentation of a concrete use case from the startup side.

Besides a problem-solution fit, both parties need to have a shared vision on the collaboration outcome, and alignment of the individual views on the approach to business, innovation, and customers (ST1, personal communication, April 4, 2020). In addition, research participants suggest that successful collaboration requires is entails mutual benefit for both parties (TP3, personal communication, May 15, 2020). Furthermore, it is suggested that the value added by the startup and the corporation should be equal for both partners (C2, personal communication, May 13, 2020).

One of the factors which might be considered by the startups when choosing the collaboration is the opportunity to scale the partnership across different markets. Large banks with an international presence are attractive collaboration partners, while they can offer a much larger scale to the startups than the local small banks (C2, personal communication, May 13, 2020).

Process and structure

The hurdles associated with the establishment of the partnerships are mentioned among the most significant obstacles on the way to collaboration. Considering corporate culture, internal structures, and startup incompetence, approaching potential partners, and finalizing the partnership deal are reported to be the most difficult steps in the collaboration process.

To start with, startups find it challenging to establish initial contact and proceed with the discussion with the potential partners. Based on the learnings from unsuccessful attempts, startup founders and corporate managers conclude, that establishing a structured communication channel, through which fintechs can approach corporate partner with the collaboration offer is the best approach (C2, personal communication, May 13, 2020, C4, personal communication, April 29, 2020)

On the startup side, founders indicate that a concrete value proposition and a well-presented use case defines the successful start of the discussion. Experts from third-party organizations highlight that startups need to be aware that the corporations are approached by a vast number of companies willing to collaborate (TP2, personal communication, June 17, 2020). Thus, presenting a clear use case and a well-developed solution is the first step to be considered for collaboration. However, it is frequently reported that in the course of the discussion, an alternative solution can be developed, moving aside from the initial ideas (C3, personal communication, May 6, 2020). Nonetheless, innovation managers suggest providing visualization of the solution demo-version during the first meetings, which can significantly impact the interest from the corporate side (C1, personal communication, May 10, 2020).

Much attention is paid to the presentation of the fintech offer and value proposition. Startups are recommended to prepare well worked-out documentation, which would include the essential information on the startup and a pitch deck (TP2, personal communication, June 17, 2020). It is crucial, while due to the complex decision-making trees the idea needs to be presented to multiple stakeholders, and if the documents are not clear, there is a very high likelihood corporate partner will not proceed with the partnership. Having well-developed documentation is also important while sometimes startups undergo tenders and international bidding processes (ST1, personal communication, April 4, 2020).

Another factor, which influences the successful establishment of the partnership is the easy-to-use product. Founders highlight that the more accessible is a product for integration, implementation, and running the partnership, the more corporate partners are willing to enter the collaboration (ST2, personal communication, May 14, 2020). Furthermore, dealing with highly innovative products, corporate partners need to see the effect of the solution quickly and assess whether it is worth pursuing the partnership further (ST2, personal communication, May 14, 2020). Thus, founders state the ability to implement the minimum-package solution quickly facilitates the partnership – “Provide a possibility to make quick wins… so that they can easily use your solution with a short time to market. And then, perhaps, roll out more functions”, suggests one of the founders (ST2, personal communication, May 14, 2020).

The international presence of the majority of the corporations in the Austrian financial sector opens opportunities to test the solutions before finalizing partnerships most efficiently. A successful practice, implemented by corporations is pivoting with the project in one country with the mild regulatory environment or easier setting and then scaling the partnership across other markets (C4, personal communication, April 29, 2020). Testing a product in one country allows us to evaluate the potential effect of the collaborations in the other markets and make more informed decisions regarding the value of the partnerships (C3, personal communication, May 6, 2020, C2, personal communication, May 13, 2020). Naturally, it requires customization of the partnership and the product to the piloting country, which allows to maximize the value of the solution in each market (C4, personal communication, April 29, 2020). Such practice is beneficial not only to the corporation but to the startups, as future partnerships with the same corporation require less effort and can be established in considerably shorter timeframes, which is considered to be one of the critical success factors for collaborations in the industry (ST3, personal communication, May 28, 2020).

Once both partners are interested in collaboration, another set of obstacles awaits startups on the way to finalizing the partnership. Perhaps the biggest challenge related to the organizational culture and structure is a complex slow decision-making process. Collaboration with fintech requires approval from multiple departments and decision-makers, which makes the negotiation process and the set-up phase one of the biggest challenges on the way to collaboration.

Corporations in the financial sector have a very rigid structure, established for decades and complex decision-making trees. Thus, establishing collaboration requires getting approval from multiple departments, including IT security, legal, compliance, risk management, and sales (ST3, personal communication, May 28, 2020). Startup founders share that getting approval from all the stakeholders is a tedious process, which might take years (ST5, personal communication, April 22, 2020). “You have a preparation meeting for the preparation meeting for the preparation meeting for the final meeting about the possible collaboration” (C1, personal communication, May 10, 2020). Furthermore, the bigger the project, the more stakeholders have to be involved in the negotiation process (C1, personal communication, May 10, 2020)

Corporations need to realize that despite institutions like banks, multiple meetings and negotiations are part of the organizational routine; for the startup, it might sometimes be not feasible (C2, personal communication, May 13, 2020). “I think once they realize (it), a lot of fintechs just do not make it, and people just give up” (TP3, personal communication, May 15, 2020). One of the first unsuccessful collaboration experiences shows that the fintechs were “killed in the process,” as it took years to finalize the partnerships (C2, personal communication, May 13, 2020).

In contrast, startups share a very positive experience in collaboration with smaller corporations. Instead of a long negotiation process with multiple meetings, in such a partnership, startups can approach the CEO or management team directly. Then, according to the previous experience, if the idea is found attractive, the partnership can be set in a much shorter time frame than in a traditional corporation (ST7, personal communication, April 28, 2020).

Therefore, the primary goal for corporations in the financial sector should be the reduction of the complexity of the decision-making processes within corporations. “Despite we are discussing innovation, and everyone wants things to happen fast, it is financial technology, and there are some strings attached to that (TP3, personal communication, May 15, 2020). Regardless of the industry setting, the ability to shorten the time frame between the first meeting and project roll-out is crucial for the startups (ST1, personal communication, April 4, 2020). It is worth mentioning that the timelines have already been shortened – most startups suggest that the recent projects required 4-7 months to establish the partnership and go live, which is significantly faster than the first collaborations. Moreover, corporations make continuous improvements to shorten the time frame to 3 months to suit better the startup environment (C2, personal communication, May 13, 2020). Nevertheless, in order to secure the success of future partnerships, banks need to learn how to be even quicker (TP1, personal communication, June 15, 2020).

While it is impossible to avoid internal compliance and proceed with the partnership without necessary approvals, one of the possible ways to tackle long time frames and slow decision making is having a transparent collaboration process and structure. Corporations need to create a structure and basic underlying processes, which would allow them to have better control over all collaborations in place and track the status and the progress of each partnership (C4, personal communication, April 29, 2020).

At this stage, some corporations still experience difficulties in partnership management. The absence of clearly defined collaboration structure and dedicated innovation unit leads to great confusion and inhibits the potential and existing partnerships. With thousands of employees and dozens of departments, it occurs that frequently fintechs proposing similar projects are in negotiations with different corporate divisions, which entails chaos, lost resources, and partnerships (C3, personal communication, May 6, 2020). Besides, it imposes difficulties for fintechs, which are already in the negotiation process, which entail longer time frames and slow progress with the partnerships.

The leading corporations' experience shows that the establishment of a separate innovation team or department within the bank positively contributes to the collaboration process in general (TP1, personal communication, June 15, 2020). Taken the learning outcome from past partnerships, most of the large corporations have introduced a separate innovation unit to the corporate structure to address the issues described above (TP4, personal communication, June 3, 2020). Managers admit that having a dedicated team, which specializes in third-party partnerships, helps to bring structure to the collaboration process and aids the startup on each stage of the partnerships (C2, personal communication, May 13, 2020). However, corporations need to consider the potential drawbacks of establishing a single innovation unit. There is a danger that the innovation is concentrated only in one division of the corporate structure, and the rest of the employees are not involved in the process, relying only on the dedicated team (C3, personal communication, May 6, 2020). Thus, the creation of a separate innovation department needs to be supported by the change in the organizational culture overall (C2, personal communication, May 13, 2020).

While the startups do not have any impact over the internal corporate processes, well-handled upfront expectations management is crucial for each fintech entering the collaboration (ST2, personal communication, May 14, 2020). Startup teams need to be aware that establishing collaboration is a tedious process with extensive time frames, myriad of negotiations, meetings (ST3, personal communication, May 28, 2020). Founders indicate that patience, persistence, and endurance from the startup side are important qualities for the startups to have, aiming for successful partnership deal (ST3, personal communication, May 28, 2020, ST4, personal communication, June 15, 2020).

Another critical success factor, which can be referred to as the collaboration process and structure, is a well-developed roll-out and implementation plan. The best practice in establishing collaboration is taking time on the set-up phase to define the product and concrete product specifications (ST3, personal communication, May 28, 2020). Reaching an agreement on all the product-related aspects of the partnership and clearly defined tasks and responsibilities for the implementation plan considerably facilitates collaboration (C1, personal communication, May 10, 2020). The quality of "who does what" is crucial on the set-up phase (ST1, personal communication, April 4, 2020). When the responsibilities and tasks are assigned to each partner, both partners can start work individually.

Furthermore, for collaboration based on horizontal partnership and joint product development, it is important to spread the responsibilities most efficiently, using the strength of each side. For instance, it is proven to be successful to run the project by the startup side, which entails better responsiveness to the customer feedback and faster reaction to the environment changes (ST4, personal communication, June 15, 2020). Experts highlight the importance of a feedback loop between the end customers, the corporation, and the startup. Running the project, both parties need to monitor the performance and react responsively to the customer needs (C2, personal communication, May 13, 2020).

Membership and involvement

Addressing the obstacles related to the complexity of the corporate structure, getting all the stakeholders on board is another challenge to consider. Above all, it is essential for startups to identify the relevant stakeholders within the corporation and find the right people to approach (C3, personal communication, May 6, 2020). However, according to the previous collaboration experience, it is easier said than done. Founders indicate, that "It is very hard to meet the right person within the right departments that you can present your product to" (ST5, personal communication, April 22, 2020).

Experts from the corporate side suggest that having a dedicated project owner or committed mentor in case of corporate accelerators and incubators allows reducing the number of interfaces and contact points (C3, personal communication, May 6, 2020). Understanding the internal hurdle, professionals state: "I would strongly require one person that is my single point of contact for this interaction phase in the bank" (C3, personal communication, May 6, 2020)

This statement is supported by all the respondents from the startup side. Founders reported, that it is vital for a strong collaboration to have a dedicated project manager within the corporation, who would be eager to pursue the idea and guide the startup towards the partnership agreement. "That's the only way to do it. Somebody must like you in the big company" – shares startup founder (ST6, personal communication, May 26, 2020). Without a responsible project manager, there is a high risk of getting lost in a complex corporate structure and never proceed with the partnership (ST3, personal communication, May 28, 2020). "We need somebody who wants to do it. So, there must be somebody who takes ownership of the product and pushes it through the hierarchies" (ST1, personal communication, April 4, 2020).

Further, startups identify the most important characteristics which define successful project manager for fintech collaboration. Founders share, that it is considerably easier to establish the partnership if a project manager is passionate about the solution and appreciates the startup idea (ST4, personal communication, June 15, 2020, ST7, personal communication, April 28, 2020). Besides, it is essential to choose a project manager with whom startups can develop a trustful relationship (ST3, personal communication, May 28, 2020). In addition, the dedicated project owner should be well-networked within the organization, who knows which stakeholders to approach and how (ST3, personal communication, May 28, 2020). Being on the positions of the innovation managers, or project owners, these employees need to establish connections to the key decision-makers, having a good reputation within the organization, supporting the startups with the necessary contacts (C4, personal communication, April 29, 2020, TP2, personal communication, June 17, 2020).

However, having one or a few people responsible for innovation in the large corporation is usually not sufficient to build successful partnerships. The course on innovation should start from the top management, involving the workforce on each level in every department (C1, personal communication, May 10, 2020). Hence, perhaps the most important success factor identified by corporations, startups, and even the third parties is a commitment from C-level management. Corporations such as traditional banks with thousands of employees, dozens of departments function in an extremely regulated environment. Without the support from the top management and sponsorship on the board level, it is challenging to convince all the stakeholders to try and “cut a piece of their pie” (TP2, personal communication, June 17, 2020). Experience in the current partnerships shows that having a sponsor as far in the hierarchy as possible is crucial to have enough backup inside the bank (ST3, personal communication, May 28, 2020). Assessing the previous unsuccessful collaboration experience managers conclude that collaboration without the commitment from management either leads to quick failure, or it might take years to push the project through (C2, personal communication, May 13, 2020).

In some cases, getting visible support from the C-level from the start of discussion plays a definitive role in choosing a potential collaboration partner (ST4, personal communication, June 15, 2020). Thus, what experts recommend for the startups entering collaboration is getting a board meeting on the earliest stage of discussion to receive the support from the management (ST3, personal communication, May 28, 2020).

Another factor to consider is the interaction between the startup team and corporate employees. The level of interaction between the teams depends on the stage of collaboration and the project itself. The set-up phase of the partnership always requires frequent meetings, discussions, and collective work on product development, feedback collection, and implementation. Product development and integration usually require cooperation between the tech teams from the startup and the corporate side (ST1, personal communication, April 4, 2020). While such interaction does not entail any challenges on the organizational level, the most important is to ensure that both teams have sufficient internal capacity and are able to dedicate maximum resources to settle the technical part of the collaboration. In this regard, startups require from the corporate side willingness to cooperate and help the fintech with difficulties arising from the mismatch between IT systems (ST1, personal communication, April 4, 2020). When the project is running, the interaction is driven to a minimum, especially if the startups sell the solution to the company. However, it still requires mutual support and a continuous feedback loop, which helps both partners to improve the solution.

Another aspect frequently addressed in the literature review is the power imbalance between corporations and startups. Research participants confirmed that they might have faced this obstacle a few years ago, when the startup ecosystem only started to grow, and collaborations were a brand-new phenomenon. However, at this point, both startups and corporations acknowledge the value each side brings to the collaboration and consider current partnerships to be on an equal basis. It can be considered as a positive trend in the industry since equal power distribution and the right attitude from the corporate side is one of the key factors for a successful partnership. Startup founders highlight that as long as the discussion and negotiations are on the "eye-level" and there is no dominance over the startup, this is a good precondition for a successful long-term partnership (ST2, personal communication, May 14, 2020). On the other hand, "if a bank still has a mindset that they are the big fish, and you are the little one, that is not a good start, and that is not going to be a good partnership" (ST2, personal communication, May 14, 2020).

Communication

Communication-related issues have received very little attention from the research participants. The most important feedback from startups is related to the importance of written communication. Since banks are very complex organizations, if the collaboration process is not well-controlled, the change of decision-makers or internal restructuring might impact the status of collaboration. Thus, experts recommended having a written agreement in any form as early as possible in the collaboration process (ST3, personal communication, May 28, 2020).

Further, the relevance of informal communication and its effect on the collaborations has been discussed by some of the respondents. However, opinions regarding the importance of informal communication differ among the participants. First of all, major banks start the implementation of the structured channels, which startups can use to approach the corporations with the collaboration request (C2, personal communication, May 13, 2020). Furthermore, all of the startups have established partnerships outside the Austrian ecosystem. Hence, the close private and professional network plays no role in establishing international partnerships (ST2, personal communication, May 14, 2020).

However, for the running partnerships establishing personal connections and informal communication is reported to be of high importance, especially for long-term collaborations with the high level of integration. Corporations share positive experience in organizing informal events to learn about the startup team and strengthen the so-called "professional friendship," once the partnership conditions are settled (C2, personal communication, May 13, 2020). From the startup side, founders admit that having informal meetings with the important partners positively contributes to the relationship between the two (ST3, personal communication, May 28, 2020)

Resource base

One of the challenges related to the resource base of the collaboration is limited capacity, both from the startup and the corporate side.

From the startups' side, there has been no concern reported regarding financial constraints or unavailability of physical resources to establish and manage collaboration. However, all the fintechs in the scope of the research identified limited capacity in terms of time and human resources.

From the startup perspective, one of the founders indicates:

> There has to be a clear understanding that working with such a whale means that you, as a startup, have to double or triple your internal time schedule…So you need to be able to have enough resources to put in such cooperation (ST3, personal communication, May 28, 2020).

This factor needs to be considered when approaching new partners. In order to avoid future complications and the inability to deliver promised results, startups need to evaluate the internal capacity and ability to allocate enough resources to each partnership under consideration (C4, personal communication, April 29, 2020). Experienced founders indicate, that “as a startup, you have to manage every partner, and it takes resources” (ST1, personal communication, April 4, 2020). Hence, founders need to consider the internal capacity to make informed decisions regarding which partnerships should be prioritized and pursued (C4, personal communication, April 29, 2020).

Capacity issues can arise from the corporate side as well. It might occur that bank has limited resources and unable to allocate enough time, funding, or human resources to collaboration. In this case, experts suggest that the most important is open and transparent communication to the startup partner (C2, personal communication, May 13, 2020). Therefore, similar to the startups, corporations need to have a well-developed landscape of resources which can be allocated to the partnership before starting the discussion (C3, personal communication, May 6, 2020).

Besides capacity allocation, which is considered to be a side factor influencing the success of the collaboration, the biggest group of obstacles in the collaborations in the industry refers to the corporate IT infrastructure and legacy.

Since the start of collaborations in the industry, startups have been struggling with the integration of the developed solutions to the banks’ systems. It is worth mentioning that, based on the experience shared by startups, the situation has been improving over recent years. Leading banks report that they are continuously working on improving the in-house technology and that IT legacy is not an obstacle anymore (C2, personal communication, May 13, 2020, C3, personal communication, May 6, 2020). However, fintechs recognize that there are still plenty of banks working on the general old IT infrastructure, which imposes significant challenges on the startup trying to integrate the product into bank systems (ST2, personal communication, May 14, 2020, ST5, personal communication, April 22, 2020). Even if the solution can be run independently, it usually requires minimal integration, which entails difficulties working with outdated corporate technology (ST3, personal communication, May 28, 2020)

Some corporations still lag while the most advanced banks step ahead in revolutionizing the internal tech landscapes (ST2, personal communication, May 14, 2020). However, all the corporations need to consider that partnerships with the startups require modern IT infrastructure, and there is no other way than upgrading internal systems to the latest technology. Startup founders require the necessary infrastructure in place that is able to handle collaboration (ST1, personal communication, April 4, 2020)

While it cannot always be transparently communicated which IT infrastructure and systems are used in a bank, the fintech needs to be able to adapt to the corporate IT systems and integrate their product to the corporate infrastructure (ST2, personal communication, May 14, 2020). Experts from the corporate side also suggest startups to have a workaround plan in place if it is impossible to implement the solution for IT security reasons (C4, personal communication, April 29, 2020)

An important issue that is still recognized by many startups is a mismatch between the data servers used by both partners. Fintech companies usually do not have the resources and internal capacity to afford the data servers to store customer data; thus, the majority of fintechs use cloud-based servers for their products and services (C3, personal communication, May 6, 2020). Such specifics have caused significant hurdles for both parties, while the integration of cloud-based solutions entails additional risk for the customer data safety.

Moving bank data to the cloud needs to be supported by detailed risk management (C3, personal communication, May 6, 2020). Most corporations have reservations regarding working with the cloud data centers outside the European Union, since there is a deep concern regarding customer data safety (C2, personal communication, May 13, 2020, C3, personal communication, May 6, 2020). Current experience shows that switching from the US to the EU-based cloud servers had a very positive effect on the partnerships (ST2, personal communication, May 14, 2020).

The difficulty of collaboration and application of cloud-based solutions differs from country to country. Based on the experience shared by the corporate experts, Austria belongs to the countries which have a less favorable regulatory environment to implement such partnerships (C2, personal communication, May 13, 2020). Hence, third party authorities and government bodies need to work on the new regulations to facilitate the environment to facilitate future partnerships in the industry

On multiple occasions, the inability of a corporation to work with the cloud-based fintechs can prevent collaboration or result in a failed partnership. Otherwise, some corporations, which are already switching to cloud services, recognize the positive impact, and increasing opportunities for collaboration (C2, personal communication, May 13, 2020). Despite using cloud solutions in banking has multiple implications and additional hurdles with ensuring the security of data, experts consider that the future of banking is impossible without the cloud, and there is no workaround (C2, personal communication, May 13, 2020).

4.3 Analysis and discussion

Analyzing the theoretical concepts and current research findings, one can confirm a substantial difference between corporate-startup and standard inter-organizational collaboration. The literature review and analysis of the existing theories have shown that all the success factors identified for inter-organizational collaboration address the issues occurring when the two organizations are working together. Contrarywise, current findings show that the majority of the success factors identified for corporate-startup collaboration are not related to running the partnership. Quite the opposite, critical success factors address challenges that occur in the first stages, approaching collaboration partners, getting the partnership approved, and finalizing collaboration terms and conditions. Such differences support the author’s assessment – corporate-startup collaboration cannot be examined from the traditional inter-organizational collaboration perspective.

Further, comparing current research findings and concepts covered in the literature review, few discrepancies have been identified.

First and foremost, since there is a limited amount of academic works on the topic, corporate reports, white papers, and articles from the industry experts have been used for the literature review. Examination of the research participants’ experience concluded that reports prepared by direct stakeholders in the collaboration process, such as consulting firms, incubator, and accelerator companies frequently present biased results. For instance, literature findings suggest that there are more collaborations established in the industry than there actually are. Besides, the importance of some corporate-startup engagement types is slightly inflated – corporate-startup networking conferences and match-making events are presented as a key channel to find collaboration partners and establish new partnerships. However, research findings show that despite the events are important to gain visibility in the ecosystem, actual partnerships are established more often through structured communication channels organized by corporations or individual requests from the startups.

Referring to the other corporate-startup engagement types, presented in the literature, research findings show that such a model as resource sharing is not used in the sector by far, which can be explained by the industry setting and limited engagement with the startups on the early development stages. Furthermore, neither corporations nor startups do not consider the opportunity of transformational agreements, as acquisition by one corporation usually contradicts the startup’s objective to scale the business model with multiple partners.

The uncovered motives and objectives behind the collaboration in the selected companies to the large extent support previous studies' results. However, findings contradict one particular aspect discussed in the earlier research on the topic of corporate-startup collaboration. Namely, previous studies highlight the improvement of corporate brand perception as one of the side goals pursued in the collaboration. Current research findings, in contrast, suggest that at this point corporations acknowledge that PR and brand improvement cannot be considered as objectives for collaboration. From the startup side, findings suggest that the major purpose of partnering with the corporations is scaling and increasing the customer base, which also confirms previous research on the topic. However, objectives such as access to corporate resources and technology, mentioned in the literature review have not been confirmed by the research participants, which can be explained by the maturity of startups under the scope of the research and differing startup needs.

Referring to key success factors, research findings match previous studies on the topic in many instances. However, the current study identifies a number of new aspects in each group of success factors, discussed in the literature review. For instance, major environmental factors highlighted in the earlier studies do not apply to the financial services industry. According to the experts' suggestions, the economic downturn caused by the Covid-19 outbreak has barely impacted existing partnerships, proving that favorable business climate and economic conditions play no role in the success of established partnerships. However, it is worth mentioning that uncertainty imposed on the corporations by the economic downturn has negatively impacted potential partnerships, as most of the negotiations have been put on hold until the situation improves (ST6, personal communication, May 26, 2020). Besides, the importance of co-located working facilities, highlighted in the previous studies has not been supported by research participants.

The biggest difference can be tracked between the success factors, which can be identified within the resource base category. Findings show that there is no apparent conflict and fear regarding the protection of intellectual property rights, which contradicts the previous research. Perhaps, it can be explained by the change in the perception of collaboration by startups and corporations and the learning curve within the partnerships. Since at this stage both parties are aware of the pitfalls in the process and have a deep understanding of each other's objectives and capabilities, startups have no or very little concern regarding IP and product cannibalism. On the other hand, one of the major success factors revealed in the course of the research is advanced corporate IT infrastructure and the ability to work with cloud-based solutions, which has not been identified in the earlier studies.

Addressing the factors, related to the collaboration process and structure, it was important to examine whether frameworks, suggested by Larkin & O'Halloran and Mocker et al., presented in section 2.5.2. can be applied to existing partnerships. The analysis shows, that at the current stage collaboration parties managed to achieve the best fit between corporate objectives, startups stage of development, and collaboration models applied in each particular case, confirming the theoretical concepts.

Overall, analyzing the research findings, the high similarity between the responses from the startup and corporate side has been detected. Experts from the startup and corporate side focus on similar success factors, which shows a positive trend in the industry. Namely, one can conclude that both parties have developed a deep understanding of internal deficiencies and drawbacks and there is a steep learning curve, while organizations have incorporated a number of changes to the organizational structures, processes, and approach to collaboration based on the previous unsuccessful collaboration experience. Besides, even though there is no “one-size-fits-all” solution for the successful collaboration and the outcome of each partnership depends on a unique combination of contributing factors, a few major aspects have been frequently identified by the experts from all participating organizations in each and every case, suggesting that these factors are essential for a successful outcome of the corporate-startup collaboration in the financial sector.

5 Conclusion

Despite the fact that corporate-startup collaboration in the financial sector is gaining importance, limited research has been dedicated to the exploration of such a phenomenon. Previous research on the topic has placed focus on the prevalent types of corporate-startup engagement, discussing the operational aspects of specific collaboration models. Several studies also addressed frequently occurring challenges and potential benefits of the corporate-startup collaboration. However, there here has not been done enough research investigating the strategic solutions, required to establish successful collaborations. In light of the fact that the literature on the topic of corporate-startup collaboration is generally scarce, none of the previous studies aimed to investigate corporate-startup collaboration in the financial setting.

Therefore, aiming to close the knowledge gap in the existing body of literature, the current research investigates the factors essential for the corporate-startup collaboration success in the financial sector. Besides, such aspects as prevalent collaboration types, strategic motives and objectives, and major obstacles in the collaboration process are explored in order to conduct a comprehensive analysis of the success factors for corporate-startup collaboration.

Answering the first research question, the research has identified that the state of corporate-startup collaboration has considerably changed over the past five years since the fintech ecosystem has started to grow. First and foremost, in light of the open banking revolution and startup ecosystem development, the number of partnerships between Austrian fintechs and corporations has been steadily increasing. This trend is accompanied by the change in the motives and objectives behind the collaboration – research reveals that the key objectives behind collaborations have shifted from getting acquainted with innovation trends to strategic partnerships directed to utilize mutual value proposition and sustain growth over the long run. Changes in the objectives behind collaborations are reflected in the prevalent corporate-startup engagement models. Findings show, that at this stage most of the industry players identify long-term partnerships based on joint product development or procurement from the startup as the most promising collaboration models, as they are considered to be the best way to utilize mutual value proposition.

Referring to the second and central research question, a number of interconnected success factors for the collaboration have been identified. Above all, research findings suggest that the major obstacles in the collaboration process originate from the stiff regulations constraining innovation and collaboration in the financial services sector and complex corporate structure, which poses significant challenges for the startups aiming for collaboration. Research findings show, that substantial improvement has been made in the industry environment to support collaborations. Addressing the regulatory difficulties, findings show that cooperative and easy approachable regulatory bodies contribute to the successful outcome of the partnerships. Research reveals that cooperative discussion between government authorities and supporting organizations representing interests of the collaboration parties is considered to be highly important for partnerships in the sector, as it allows to force necessary amendments to the existing regulations through.

Tackling the obstacles posed by the corporate organizational structure, findings show that C-level commitment and support from the top management are crucial for collaborations' success. Furthermore, a structured approach to collaboration is identified by all the research participants as a critical success factor. It entails creation of a separate innovation unit within the corporation and establishment of the dedicated team and resources, specialized communication channels, which allow tracking partnership progress on each stage. Besides, startup founders emphasize the importance of devoted project owner for each individual collaboration, passionate about the startup solution, and committed to proceed with the partnership to the roll-out. Lastly, modernization of the bank IT infrastructure is highlighted as the most important step towards successful partnerships in the future.

Overall, findings show that the success of the collaboration is comprised of the multiple interrelated contributing factors, which define the partnership outcome. Current research findings provide a detailed overview of the strategies and practices employed by the selected companies in the Austrian financial services industry to establish successful collaborations. Even though the findings of the research cannot be generalized to all the collaborations in the financial sector, the study highlights important learning experience shared by industry experts, which can serve as a practical guidance and a source of potential solutions to the issues and obstacles faced by the other collaboration players in the industry. Besides, study findings set a foundation for further academic research on the topics suggested in the following section.

5.1 Limitations

Similar to other studies, this research has a number of limitations. Certainly, one of the biggest challenges throughout the research process was CoVid-19 -related changes in March-May 2020. Due to the unexpected emergency situation caused by the CoVid-19 pandemic, both theoretical and empirical part of the research were affected. While the theoretical framework and the majority of workload dedicated to the literature review was done beforehand, it has been completed thoroughly, using deliberately chosen scholar sources. However, for the minor topics, due to the limited access to the library sources during the imposed restrictions on public movement, some sources which were chosen to be potentially relevant for the study were not accessible.

For empirical research, the limitations imposed by CoVid-19 measures are more significant. While for the data analysis process in qualitative research, the face-to-face interviews are considered to be a preferred method, phone interviews were used. On the one hand, it partly negatively influenced the data collection and analysis itself, while frequently occurring technical issues, internet connection failures brought additional difficulty and increased the chance of transcription error. Furthermore, the majority of the interviewees preferred audio-only connection, which eliminated the possibility of analyzing non-verbal communication during the interview process.

Several limitations which are related to research findings can be identified. As highlighted in section 3.2.2., one of the obstacles faced in the participant recruitment process was high non-response or negative response rate, which has resulted in underrepresentation of the startups on the early development stages and insurance companies in the final sample. This might have had an impact on the results of the study, since findings present the experts' opinions only from banking sector and relatively mature startups as the predominant collaboration partners.

5.2 Suggestions for future research

The current study had a pure exploratory purpose and aimed to reveal the potential success factors for corporate-startup collaboration in the financial sector. Thus, this research provides a number of findings, which can serve as a solid basis for future quantitative and qualitative research.

There are number of aspects, covered in the current research, which require further detailed investigation. For instance, among the critical success factors, the research has identified the establishment of a separate innovation unit within the corporation. It is suggested to conduct a case-study based qualitative research to explore how corporations can re-organize corporate structure and what is required for the successful introduction and integration of such innovation unit. Further, in the course of the research, product ownership, and governance in the corporation was identified as one of the significant success factors. However, considering the broad scope of the research, it was not feasible to investigate this aspect in-depth. Thus, further research might focus on exploring the collaboration governance types, such as centralized, decentralized, and hybrid, and the relationship between the chosen model and the collaboration outcome. Another direction for future research is suggested based on the recent introduction of the regulatory sandbox in Austria. It might be of potential interest to the academia and industry practitioners to conduct a case study analysis or comparative case study, assessing the startup journey towards collaboration with and without the regulatory sandbox.

There is great potential for quantitative research as well. First and foremost, it is suggested to explore the effects of corporate-startup collaboration on corporate and startup performance. It might be interesting to investigate the financial returns of the partnership projects, effects on sales growth, or customer engagement, comparing “before” and “after” statistical data of startup and corporate performance. Another suggestion for future quantitative research refers to the investigation of the impact of the startup maturity on the collaboration outcome since this factor was frequently mentioned as crucial for the collaborations in the industry. Hence, further research could aim to investigate the relationships between startups’ development stage, team experience, founders’ age, previous professional background in the industry, and the collaboration outcome or timeframes required to establish the partnerships.

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7 Appendix A – Interview Guidelines

Subgroups: Corporations, Startups

Introductory speech from the interviewer

1. Introduction

Could you introduce yourself and tell me about your role in a company?

2. Motives/objectives

Can you tell me about the collaboration experience in your company? How long have you been cooperating?

What are the main motives and objectives behind the collaboration?

Where and how do you get to know your collaboration partners? *(Conferences/ startup competitions/ hackathons? Do startups initiate collaboration and contact you first?)*

How do you choose the most promising collaboration partners?

3. Collaboration models

What collaboration model(s) is (are) used by your company, and why?

Which collaboration models do you see as the most promising?

4. Collaboration success

Which of your partnerships are the most promising ones, and which would have needed a different approach?

What are the main challenges you face in the collaboration process?

What, in your opinion, is crucial for successful collaboration from both sides?

5. Future outlook for collaboration

What would you do differently in your future partnerships to improve the collaboration experience?

Are you considering an increase in the extent and of collaborations with startups? Why yes/no?

Is there anything else you would like to mention regarding the topic of corporate-startup collaboration?

Subgroup: Third-party organizations

Introductory speech from the interviewer

Introduction

Could you introduce yourself and tell me about your position in the company?

What is the role of your organization in corporate-startup collaboration in Austria?

What are the main activities organized by your organization to support collaborations in the ecosystem?

Motives/objectives

Based on your experience and personal opinion, what are the main motives and objectives behind the collaboration for the startups and corporations?

How are new partnerships created between corporations and startups?

Collaboration models

What collaboration models are mostly used by collaborating companies?

Which collaboration models do you see as the most promising?

Collaboration success

What are the main challenges your organization faces supporting corporate-startup collaborations?

What are the biggest challenges faced by the collaboration parties?

What, in your opinion, is crucial for successful collaboration?

Future outlook for collaboration

How do you assess the recent trends in corporate-startup collaboration in the industry?

Is there a general upwards or downwards trend in the number of partnerships established?

Is there anything else you would like to mention regarding the topic of corporate-startup collaboration?

8 Appendix B – List of codes

1.	**Challenges**
	Corporate-related
	Approval from internal supply chain
	Bank structure
	Complex corporate systems
	Complex hierarchy within the corporation
	Difference in culture
	High-security standards
	Identifying the right people to approach
	Interaction with multiple stakeholders
	Internal legal compliance
	Internal resistance
	Multiple meetings and negotiations
	Old IT infrastructure
	Power imbalance
	Receiving feedback from the corporation
	Request for exclusivity
	Slow decision-making process
	Slowly moving processes
	Unstructured collaboration process
	Well-established processes & segmentation
	Other
	Data confidentiality
	Difficult regulatory environment
	Getting approval from regulators
	Startup-related
	Inability to afford own data servers for fintechs
	Limited manpower
	Limited time &resources
	Need to learn new ways to work
	Protecting IP
	Speed mismatch
	Too high expectations from the startups
	Wrong image of how collaboration works
2.	**Collaboration model**
	Business support
	Accelerator program
	Boot camp
	Different topics in the program
	Incubators
	Choosing a collaboration partner
	Banks are looking for solutions
	Choosing a partner through competition

	Hackathons
	Pitching days
	Startup challenges
	Via tenders
	Connected by the third party
	Meetings and conferences
	Corporation is approached by a startup
	Collaboration partners
	Business model (startup)
	B2B model
	B2B2C model
	B2C model
	Product (startup)
	Corporate partnering with external organizations
	Cooperating with the external accelerator
	Multiple partnerships
	Partnering with different types of fintech
	Both back-end and front-end solutions
	CVC
	Partnership model
	Co-branding
	Joint product development
	Vertical relationship
	Referral agreement
	Revenue sharing
	Transaction fee
	White-labeling of the product
	Selecting the right model
3.	**Current state of collaborations**
	Change in collaboration
	Covid-19
	Fintech-Fintech collaboration
	Getting acquainted with innovation
	Innovation in the financial sector has a long-standing history
	Internationalization impact
	More difficult to approach corporates
	More startups looking for cooperation
	Need for game changers
	Overinflated hype
	Real project type partnerships
	Still, a lot to be done
	The collaboration is improving
	Transition from Fintechs as a danger to fintechs as partners
	Fintech in Austria
	A small share of fintech startups

	Difficult to enter the fintech scene
	Fintech is developing slowly
	Impact of culture
	Male-dominated
	Older age group of founders
	Future partnerships
	Change in the model
	Embedded in the corporate strategy
	Entering new geographic areas
	Increase in partnerships
	Multiple partnerships
	Strengthening existing partnership
	Geography of the collaboration
	Austrian customers
	International collaboration
	CEE as a potential market
	Germany is an attractive market
	Germany-based
	No specific focus on Austria
	Regulations
	Fintech Contact point
	PSD2
	Regulatory sandbox
	Government change
	Confusion regarding licensing
	The status of collaborations is not public
	Third-party
	Connecting all the stakeholder
	Field of activities
	Fintech Week
	Highlighting opportunities
	Inability to track the effect of the events
	Matchmaking events
	Members
	Mission
	Organizing community events
3.	**Motives for collaboration**
	For corporates
	Core service improvement
	Demand from the customers
	Enhancing the power of the partner
	Faster time-to-market
	Financial returns
	Improvement of the corporate image
	Increasing internal efficiency

	Limited internal capacity
	No need to re-develop what is already on the market
	Sharing expertise
	Solving business problems
	Surviving as a bank
	For startups
	Collaborating to start the operations
	Customer acquisition
	Entering new market segments
	Getting a first reference client
	PR
	Scale
4.	**Success factors for collaboration**
	Communication
	Approaching corporation through structured channels
	Face-to-face management interaction
	Get written approval
	Having 3d party in negotiations
	Informal communication
	Environmental
	Facilitation from regulatory bodies
	Irrelevance of co-located facilities
	Membership and involvement
	Approval of the partnership by CEO
	Bringing transparency to collaborations
	Clear definition of the stakeholders
	Commitment from the top
	Continuous mutual support
	Cooperation between tech teams
	Dedicated project manager
	Having each department involved in the partnerships
	Maintaining the power balance
	Management style
	Maturity of the startup
	Mentorship
	Mutual understanding
	Patience from the startup
	Philosophy &culture fit
	Prior strong relationship
	Raising personal visibility
	Responsiveness from the startup
	Trust and respect
	Understanding of the corporate complexity
	Understanding the startup side
	Motives &objectives

	Choosing a partner wisely
	Clear definition of objectives behind
	Direct communication to the CEO
	Having a good pitch
	Having a good product
	Internal need-solution match
	Mutual agreement on the conditions of the partnership
	Mutual value proposition
	Opportunity to scale the partnership across Europe
	Proposition and the use case
	Shared vision
	Similarity of the business model
	Up-front expectations management
	Process &structure
	Ability to deliver on the bigger scale
	Ability to finalize the partnership deal fast
	Continuous feedback from the customers
	Delivering according to promises
	Delivering first results quickly
	Effort from a corporate side
	Establishing an innovation unit
	Having documents prepared from Fintech
	Scouting
	Set up phase
	Defining implementation & roll-out plan
	Legal framework
	Setting the right collaboration model
	Startup endurance
	Resource base
	Corporate IT infrastructure
	Moving bank data to the cloud
	Implications according to the country
	Using EU-only cloud services
	Previous personal experience in fintech
	Resource allocation
	Unsuccessful collaborations
	Aiming for the quick wins
	Immaturity of the solutions
	Inability to run the solution
	No product fit
	Power imbalance
	Startup did not survive
	Underdelivered results from the startup side