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of Austrian start-ups“

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1. Abstract

The aim of the following master thesis is to investigate the informal social capital of the startups' entrepreneurs and their potential influence on the internationalization opportunity creation during the COVID-19 pandemic in Austria. As informal networks in the following study are defined the ones an entrepreneur has with his/her/their friends and family and the start-up community. As most of the startups did not fulfill the criteria for formal network's help, such as banking loans or governmental support during the crisis, the most common resource used by its entrepreneurs were their informal networks for their effectuation activities. By using their existing resources and informal networks, entrepreneurs created new opportunities with local networks for meeting the needs of the consumers during the crisis. However, according to the ASM (2021, 2022) there is a tendency for lower internationalization and less planning for future internationalization of Austrian start-ups during the COVID-19 pandemic. The use of informal networks (especially local ones) was high during this period, however, the influence informal social capital had on the start-up's opportunity creation is still an unresearched gap in the international business and networks literature. Thus, the following study aims to investigate how the informal social capital influenced the internationalization opportunity creation of Austrian start-ups' entrepreneurs.

1.2. Introduction

Research gap – What should be found out?

The lack of investigation on the influence *social networks have on the internationalization* activities of firms was mentioned by various researchers (Dymitrowski et al., 2019; Masiello & Izzo, 2019; Kuivalainen et al., 2012; Shirokova & McDougall-Covin, 2012; P. D. Ellis, 2011; Harris & Wheeler, 2005; P. Ellis & Pecotich, 2001). The main observations and critique given is that although the role *social or interpersonal networks* play in the internationalization processes is not clear, the main focus of the research in the international business literature is put on the business or inter firm networks (P. D. Ellis, 2011; Kuivalainen et al., 2012; Masiello & Izzo, 2019). Used as synonym to the *social networks*, the effect of the *informal networks* on the internationalization is contradicting in the existing literature. On the one hand some authors state positive effects such as easier information gathering, trigger for faster foreign expansion or initiation of consequent formal networks. On the other hand, other authors

mention „lock-in” effects, less exchange of information and no influence on the internationalization speed (Dymitrowski et al., 2019).

Except for the lack of investigation on the social networks, there is also a gap on the investigation on *local networks* in the home market (Idris & Saridakis, 2018). Therefore, it is not enough investigated how local networks motivate or hinder SME’s internationalization (Fernhaber et al., 2008; Idris & Saridakis, 2018). Moreover, the findings by the current research are very contradicting. For instance, some authors state that local networks either increase or decrease the SMEs internationalization (Fernhaber et al., 2008), others that they only decrease its internationalization growth (Boehe, 2013) and some cannot find a significant connection (Yiu et al., 2007).

As previously mentioned social capital is a sum of the resources an entrepreneur has from his/her/their networks (Han, 2006; Presutti et al., 2007; Wasdani & Mathew, 2014; Zhang et al., 2012). *Thus, the social capital of an entrepreneur also depends on the resources gained by his/her/their social (informal) and local networks.* As stated by Lindstrand et al. (2011), the social capital is not a static concept but its *dynamic* should be investigated. Therefore, the authors state that *time* plays an important role in the dynamic of the social capital and should be further investigated in order to get a better understanding in the internationalization of firms (Lindstrand et al., 2011). Also (Gregorio et al. (2021) who investigate *social networks as drivers for opportunity development* and *opportunity recognition for internationalization* state the importance of time: „Findings from our research can be leveraged into studying opportunity recognition and opportunity development in **alternative contexts** with **alternative sources of environmental uncertainty**, such as the emergence of the **COVID-19 pandemic**”. Finally, Yavuz, (2021) has the following statement: „research has not yet arrived at a clear conclusion about the role of informal social capital concerning international intensity”.

To sum up, taking into consideration the recommendations for future research by the above-mentioned authors, the *role of the informal social capital on the opportunity creation (development) during the COVID-19 pandemic is an existent gap in the literature which should be investigated.* Thus, it will be the focus of the following research.

Research question

The goal of the following investigation is to determine how the informal networks of the Austrian start-ups’ entrepreneurs influence their opportunity creation. Therefore, the focus is

on the informal social capital and opportunity creation for internationalization. The chosen time frame is the one during the *COVID-19 pandemic*.

The following research question for a qualitative research method is developed: „*What role, if any, does informal social capital play in the opportunity creation of Austrian start-ups during the COVID-19 pandemic?*”.

The goal of the research question is to find out how the informal networks which innovative startups' entrepreneurs have, contribute to a creation of new opportunities for internationalization during the pandemic or how these influence the entrepreneurs' internationalization decision making.

2. Literature review

The literature review puts the focus on two theories: *network and effectuation theory*. Firstly, the network theory and the *networks' different categorizations* by various researchers are analyzed. Secondly, the *connection between the various networks and trust* is explained. Third, the *effectuation theory and its opportunity creation* are compared to the *causation theory and its opportunity recognition* as two opposing concepts. Fourth, the *connection between the network theory and effectuation theory* is given by explanation of the importance informal social capital has on the opportunity creation which is the focus of the following investigation. Finally, the existing findings in the literature related to informal social capital and opportunity creation are explained in the context of start-ups internationalization opportunity creation during *the COVID-19 pandemic*.

As the goal of the following investigation is to determine the influence of the informal social capital (network theory) on the opportunity creation for internationalization (effectuation theory) during a specific timeframe (COVID-19 pandemic) for a specific type of firms (start-ups), the existing literature on the following four topics and their interconnectedness is examined in the following sections.

2.1 Network Theory

2.1.1. What is a network?

The network theory of internationalization was derived by the Uppsala model with the argumentation that a business setting where a firm operates is not just a simple neoclassical

environment with independent customers and suppliers, but it consists of a network of relationships. With the help of its own existing relationships a firm can use external resources of its partners, discover new business opportunities, and internationalize with newly developed competences and capabilities by external support (Morrish & Earl, 2020).

The network approach analyses the internationalization processes of firms based on the relationships build by the firm, its entrepreneur, or employees with other actors or on the internal relationships between one firm's actors (Dymitrowski et al., 2019).

In the network theory literature, there are *three different approaches* which are mostly used to define networks. Firstly, networks are seen as a „system of interrelated actors’’. These actors can be the firm's customers, suppliers, or competitors but also entrepreneur's family members or friends. Secondly, networks can be defined depending on the purpose of the relationships, such as business or social relationships. Thirdly, some authors use the structure of the network as a definition. Therefore, a network is defined as a set of two or more relationships, which are connected with each other (Idris & Saridakis, 2018).

Similarly to Idris & Saridakis's (2018) explanation, Wasdani & Mathew (2014) explain that networks consist of three elements: *content, governance and pattern of exchanges between the members*. Furthermore, the authors explain that there can be a reputational or signaling content of a network, while based on the pattern, a network can be a direct or an indirect connection. Finally, the governance of a network is dependent on the level of trust between the involved parties (Wasdani & Mathew, 2014).

2.1.2 Formal vs. informal networks

Birley (1985) also provides categorization of the networks of an entrepreneur. In the author's research paper, it is distinguished between formal and informal networks. Informal networks can be external or internal, depending on the way they are developed. For instance, internal informal networks are the ones between employees of one organization, and external are the ones actors of one organization have developed with external actors outside of their own organization. The external informal networks affect the internationalization process of a firm (Dymitrowski et al., 2019).

According to Birley (1985) formal networks are the ones made with banks, accountants, or lawyers, while informal are the ones with the family of the entrepreneur, his or her friends and business contacts.

The term *formal networks* are used as a synonym for *business relationships*, while under

the term *informal networks* are meant the *interpersonal relationships* (Dymitrowski et al., 2019). Home based social networks are created by parties who are socially and specially close and are not driven by the formal structures of business relationships (Zhou et al., 2007).

- Formal networks

Formal networks are the ones which only satisfy a specific request but do not help in the process of diagnosing the needs, which is done by the informal networks. The main disadvantages are that the formal networks can be very bureaucratic, while the informal might lead to a creation of a replica of the previous employment of the entrepreneur (Birley, 1985).

According to Idris & Saridakis's findings (2018), only formal networks have a significant positive effect on the SMEs exporting activities.

- Informal networks

The informal networks have positive influence on the sales, the search for employees and location of the firms, while formal networks are mainly used for financing (Birley, 1985). The informal networks are more flexible (Dymitrowski et al., 2019; Idris & Saridakis, 2018), and the entrepreneur is more likely to listen to them, as they usually offer advice about the business activities, although they might not know all the current market opportunities. The information gained through these networks is thus redundant (Idris & Saridakis, 2018).

According to findings, entrepreneurs tend to use the informal networks when their business is relatively new, but when they decide to grow and to increase their economic returns then they turn to the formal networks. This can be mostly seen in the case when a micro firm turns into a small firm. However, the same does not happen in the case, when a small one turns to a medium firm, as this effect decreases or even disappears in some cases (Idris & Saridakis, 2018). Moreover, entrepreneurs tend to use informal networks in combination with formal ones, such as consultants and local enterprise partnerships. (Idris & Saridakis, 2018).

The most used formal network is the one with the banks, while of the informal networks the business contacts, friends, and family. The importance of the business contacts is shown by entrepreneurs who are using their networks when starting new businesses in the same location where their previous occupations were and with their previous colleagues as partners (Birley, 1985). The author mentions the importance of the local people and local networks,

as these contribute to forming local firms. Because of the use of local informal business networks, entrepreneurs tend to re-create their own previous employment, even when starting business in a new market. Therefore, the author states the importance of enterprise office offering, with the goal of informing and advising new firms of the formal possibilities and networks but also for monitoring them and finding new markets and customers. The existence of these enterprise offices is beneficial, as the informal networks tend to be a barrier for the entrepreneurs' use of the existent formal networks (Birley, 1985).

2.1.3 Direct or interpersonal networks

Idris & Saridakis (2018) also mention the importance of the direct or interpersonal networks. The authors define the direct networks as a „group that consists of people from whom the owner-manager obtains advice, information and support’’. Consequently, according to their statements, interpersonal or direct networks link not only the social aspect but also offer possibility for information exchange which could open new business opportunities. Therefore, in the group of direct connections can be not only the family and the friends of the entrepreneur, but also government officials or businesses where personal connection exists (Idris & Saridakis, 2018).

2.1.4 Weak and strong ties

A similar explanation to the one with the direct and indirect networks is present in the sociology with the weak and strong ties (Granovetter, 1973). According to Granovetter (1973), the strength of a tie an individual has with others depends on the amount of time spent together or the intimacy and reciprocity exchanged. People with whom an individual has **weak ties** tend to move in circles which are not close to the own circle. Such people can be old collage friends, former coworkers, or employers. Individuals with whom one has weak ties, are normally part of ones' professional but not private life (Granovetter, 1973). A weak tie is usually a connection between networks of strong ties. It exists between people who do not interact very often or people who interacted often in the past but not that much anymore (Shirokova & McDougall Covin, 2012).

On the contrary, people with whom an entrepreneur has **strong ties** are mostly part of the closer circle, thus these connections are positively related to larger commitments. However, while strong ties are the ones that lead to local cohesion and are more trustworthy, weak ties

are the ones which can offer new, different information than the one present in the current circle (Granovetter, 1973; Zhou et al., 2007). Furthermore, the effectiveness of the strong ties is higher than the weak ties when tacit and complex knowledge for business purposes is transmitted (Zhou et al., 2007). Masiello & Izzo (2019) explain the strong and weak ties and their contribution to the business with the terms **exploitation** and **exploration**. According to the authors, the *weak ties* are the ones which offer new, heterogeneous information and knowledge and are responsible for the search and recognition (exploration) of new opportunities. The *strong ties* are the ones which help in correctly evaluating or screening (exploiting)¹ the new opportunities. These contribute to the decision making on whether an internationalization strategy should be carried out and how that should be done. Therefore, the strong ties are crucial when an entrepreneur decides on which market to target or which market entry mode to choose (Masiello & Izzo, 2019).

Moreover, the lower the level of development of the country, the higher is the importance of the strong ties when a firm is willing to internationalize. Therefore, the social contacts of the entrepreneurs are more important than the business contacts of a firm (A. Kiss & Danis, 2010; N. Kiss & Danis, 2008; Musteen et al., 2010).

A contradicting statement to the ones from Granovetter (1973) and Briley (1985), is made by Dymitrowski et al., (2019) who state that informal relationships are the ones who help generating new ideas and finding new solutions as a consequence of the more open and friendly atmosphere between the actors in comparison to the formal relationships. Authors' argumentation for the following statement is that informal relationships are made between actors with different opinions which could lead to very creative solution of a problem as these can have different perspectives.

2.1.5 Social vs. business networks

A further important distinguishment is made by Shirokova & McDougall-Covin (2012), where networks are separated in two subgroups of **social** and **business networks**.

Social networks are also referred as informal relationships, and *business networks* as formal ones (Masiello & Izzo, 2019). Social networks include all the networks an entrepreneur has with other people in the society, while business networks are the ones between firms (Shirokova & McDougall-Covin, 2012). Business networks are developed because of inter-

¹ Synonym for creating or developing an opportunity which is used in the following paper.

firm or intra-firm relationships. Under intra-firm relationships are meant the formal relationships between firm's owners, managers, or employees, while with inter-firm relationships is meant a formal relationship between firms at an industry level. The authors call the social networks also personal networks and state that the business networks are more structured and formalized than the social ones (Morrish & Earl, 2020).

According to Shirokova & McDougall-Covin (2012) the social networks of an entrepreneur are more important than the business networks when it comes to internationalization and opportunity recognition, as often the entrepreneurs are the ones who recognize a new opportunity and not the firm by itself. Similar statement is also made by Masiello & Izzo (2019) who explain that entrepreneur's social networks are essential to SMEs' international growth, as in such firms most commonly only one person is responsible for the decision making. Therefore, an entrepreneur is influenced by his/her/their own social network when deciding in the pre entry phase or even later on when his/her/their firm has entered a foreign market (Masiello & Izzo, 2019).

In the literature, social networks are also explained by terms such as: **social ties, interpersonal relationships, personal connections, social relations, or relational networks** (Zhou et al., 2007). The interpersonal networks an entrepreneur has on his/her/their individual level, were also recognized by Idris & Saridakis (2018) as more important for determination of new opportunities than the firm's networks. According to Zhou et al. (2007) making use of social networks can be very efficient and help SMEs to internationalize more rapidly and profitably. There are three information benefits of social networks mentioned by the authors, such as the knowledge of foreign market opportunities, advice and experiential learning and referral trust and solidarity (Zhou et al. 2007). With the help of a developed personal network, its members can get access to different resources and increase their reputation and legitimacy in a foreign market (Morrish & Earl, 2020).

As social networks are defined the ones with friends, relatives, classmates, etc. However, the authors state, that a clear distinction between the social and business networks is not always possible, as it is not easy to make a clear separation. Therefore, they explain that the social and business networks are very connected and can be in a continuum (Shirokova & McDougall Covin, 2012). Similar statement is made by Zhou et al. (2007) who define social networks as interactions dominated by social exchanges. However, they also explain that the social networks can motivate a business interaction. Therefore, they do not mention only friends and relatives as actors with which an entrepreneur has social networks but also his or her personal relationships with business professionals or government officials (Zhou et al.

2007).

2.1.6 Trust and networks

Trust plays a key role in the network theory of internationalization, as it reduces the need for control. Without networks, which are developed slowly through commitment and mutual trust, dealing with situations under uncertainty in many international transactions would not be possible (Shirokova & McDougall-Covin, 2012).

Informal relationships contribute to trust development (Dymitrowski et al., 2019). For instance, during the Soviet system in Russia, country that is considered for a low-trust society, so called „*connections*” were needed so that one could get access to unavailable goods. Nowadays, in Russia, trust exists only within a group, such as a family, friends or colleagues and everyone outside the group is not trusted. Therefore, the higher the level of uncertainty in a country, the more entrepreneurs will rely on their *social networks* and less on the *business relations* (Shirokova & McDougall-Covin, 2012).

When internationalizing, small firms do not have the resources of large companies. Therefore, they must rely on more heterogenous resources such as their *formal and informal networks*. Especially, when a small firm is operating in an emerging economy, its benefits from the networks are very high, as the markets are unstable, and the institutions are ineffective (Felzensztein et al., 2015).

Further similar examples are the *guanxi* in China, *kankei* in Japan, *immak* in Korea or *blat* in Russia (Zhou et al., 2007). For instance, the existence of *guanxi* in China is a result of market uncertainty, scarce market information and low governmental trust as the governmental decisions can be very unpredictable. Therefore, when doing business and willing to create value, the institutional support is substituted by *guanxi*, a social network of people who rely on each other based on trust and reciprocity (Zhou et al., 2007).

The importance of the *international networks* and contacts is also explained by a study that investigates the internationalization of US and UK start-ups, meaning firms who operate in developed countries. According to the findings principal factors that influence early internationalization of start-ups are the possession of international contacts, sales leads, network partners and their personal knowledge of international customers (Johnson, 2004). Another form of social ties with extremely strong blind trust are the *family ties* which are present in family owned and managed firms (Masiello & Izzo, 2019).

Like the previously explained phenomena, also the *insidership* benefits are discussed in the literature (Idris & Saridakis, 2018). Especially, small firms make use of the insidership benefits which offer them the possibility to enter new markets with the help of foreign relationships (Idris & Saridakis, 2018).

The *informal relations* are part of the social life of the entrepreneur and can be essential for gaining foreign cultural knowledge and sharing important information or overcoming a possible „liability of foreignness” (Shirokova & McDougall-Covin, 2012). The „liability of foreignness” is explained by Dymitrowski et al., (2019) as existence of cultural, juridical, technological and psychological differences between a firm’s local and foreign market. Consequently, when doing business, the *social networks* of an entrepreneur *will be stronger in the local environment and lower in the more distant countries*. Thus, the importance of social networks is higher for domestic expansion than for foreign internationalization. Consequently, when willing to internationalize the value of the entrepreneur’s networks increases if they are not local but in a foreign country (Shirokova & McDougall-Covin, 2012).

2.1.7. Social capital

After explaining the various definitions of networks in the network literature, the focus will be put on the social capital as a sum of the resources an entrepreneur has from his/her/their networks (Han, 2006; Presutti et al., 2007; Wasdani & Mathew, 2014; Zhang et al., 2012). According to the social-network perspective „firms are dependent on external relationships to develop social capital that may be mobilized through the actors’ networks.” (Yavuz, 2021).

Wasdani & Mathew (2014) explain that the amount of social capital (resources) an entrepreneur will obtain depends on the size and diversity of his/her/their networks. The social capital obtained by the networks can be bridging or bonding one. The bridging social capital is a result of a weak tie and the bonding of a strong one. However, these two social capitals are not isolated and can influence each other. But there are changes in the characteristics of these two social capitals. While the bonding social capital is obtained by long-term relationships with intimate connections and social support, the bridging social capital results of large number of short-term relationships. Moreover, the bonding social capital is represented by a highly reliable information offering social and emotional support and the bridging one offers current information and rationality (Wasdani & Mathew, 2014).

2.1.7.1 Social capital and internationalization

There are *three dimensions of social capital* that influence the entrepreneur's ability to acquire foreign market knowledge and financial resources for internationalization: *cognitive, structural, and relational one* (Doornich, 2018; Lindstrand et al., 2011; Pirolo & Presutti, 2010; Presutti et al., 2007). Under structural social capital is meant the knowledge acquired which depends on the interactions of the entrepreneur. The relational dimension represents the personal relationships which entrepreneur develops with his or her contacts based on trust. Finally, with the cognitive dimension are meant the values, narratives, language and goals or perspectives which an entrepreneur shares with his/her/their network (Lindstrand et al., 2011; Pirolo & Presutti, 2010).

The knowledge for internationalization that needs to be acquired by the entrepreneur depends on the dimensions of the social capital. Therefore, the structural dimension has a positive influence on the knowledge acquisition for internationalization, while the relational and the cognitive ones have negative relationships (Doornich, 2018; Presutti et al., 2007). The lower incentive for searching new knowledge because of high trust in the current relationships is the reason for the negative influence of the relational and cognitive relationships on the new knowledge acquisition (Doornich, 2018).

The relational-cognitive dimension represents the strong ties while the structural one the weak ties. The authors also state that the high usage of strong ties can have a negative impact on the *innovation* of a start-up regardless of its life cycle (Pirolo & Presutti, 2010). Also Han (2006) states that in the *early period of internationalization*, the social capital should be created by many weak ties and few strong ties.

Evald et al. (2011) also investigate the influence social capital has on the *export intentions*. According to the authors, the social and human capital influence the levels of export planned by an entrepreneur, while the risk-aversion of the entrepreneur does not have an influence. Moreover, the committed relationships which an entrepreneur has with his/her/their networks lead to opportunity development for internationalization. The authors argue that for making a decision for a *foreign export activity*, the local and regional relationships of an entrepreneur are crucial. Thus, one can see that the social capital plays an important role for firm's internationalization activities (Evald et al., 2011; Zhang et al., 2012), as it provides three information benefits: knowledge of foreign opportunities, experiential learning and trust (Zhang et al., 2012).

More specifically, Gregorio et al. (2021) argue that social ties and the accumulated social capital lead to opportunity recognition and development. However, these have a stronger influence on the international business *opportunity recognition* than on the *opportunity development* (Gregorio et al., 2021). On the contrary, Filser et al. (2020) state that entrepreneurs who make use of their social capital created by their social networks are more successful in opportunity development than the ones who develop opportunities on their own with the help of their networks. Nevertheless the authors also argue that for opportunity recognition the weak ties are more important than the strong ones (Filser et al., 2020).

2.1.7.2 Informal vs. formal social capital

Yavuz (2021) explains the difference between formal and informal social capital in the social-network literature. The formal social capital is generalized through weak ties an entrepreneur has with his/her/their formal or professional relationships, such as customers, suppliers, work colleagues or angel investors. The informal social capital represents resources and value generated through strong ties which an entrepreneur typically has with his/her/their informal or personal relationships with family, friends and relatives (Yavuz, 2021).

Yavuz's (2021) research shows that the educational level of the entrepreneur has an effect on the level of informal social capital used by the entrepreneur. Entrepreneurs with high educational level have less use of their informal social capital than entrepreneurs with low or no education. The main reason for this is that the informal networks do not offer only information and knowledge of a foreign market but also provide psychological support and encouragement which are needed, especially when dealing with the risk and uncertainty of a foreign market. As less educated entrepreneurs lack the motivation, self-discipline and self-confidence which the high educated entrepreneurs have, they need the support by the informal social capital to deal with uncertain situations (Yavuz, 2021).

2.2 Effectuation vs. Causation

The literature distinguishes between two contradicting entrepreneurial approaches: effectuation and causation. While the causation process can be understood as cooking based on a recipe, the effectuation means cooking with the available resources in the refrigerator (Reymen et al. 2015, Sarasvathy, 2001).

Managers who take the causation approach set goals and analyze the environment, the present and potential competitors, trends on the market and their competitive advantages. For reaching the set goal, managers make strategic plans and analyze the best ways for deploying the needed resources (Reymen et al. 2015). On the other hand, the effectuation processes are actor dependent. „Actor dependency” however does not mean the entrepreneurs’ characteristics (Read et. al, 2008), which could contribute to a successful business, as this is often the case in the causation theory where the models are static, and the decision makers are considered for independent (Sarasvathy, 2001). According to the effectuation theory the entrepreneurs take part of a dynamic environment where the success of a firm does not depend on the entrepreneur’s characteristics or a previously made strategic plan but on the involved actors and the dynamic of the environment in which an entrepreneur is interacting (Sarasvathy, 2001). Read et al (2008) investigate the social network of the entrepreneurs as a source of opportunities and not the individual characteristics of the entrepreneurs, as the view that entrepreneurs have different characteristics than the normal population is not supported by the new research as this was the case in the past. However, Sarmento et al., (2016) explain the importance of the entrepreneur’s interaction in his/her/their business environment with: „In the framework of international entrepreneurship, it is not necessarily the network that makes the difference, but rather how the entrepreneur uses it”. This is related to the explanation by Andersson (2011) that while in the causation models, the entrepreneur is pursuing a certain goal, in the effectuation, there is not only one goal but more possibilities. These depend on more factors such as the entrepreneur’s characteristics, his/her/their knowledge and social networks (Andersson, 2011).

In the theory of effectuation, the entrepreneur together with his/her/their stakeholders is a co-creator of opportunities, as the opportunities are not defined as something that is out there which must be discovered or found, but something which will be created by the entrepreneur and his/her/their partners. Moreover, each of the stakeholders contributes to the entrepreneur’s work with its degree of flexibility, risk management and opportunity creation talent (Read et. al, 2008). They also contribute to the direction of the business an entrepreneur will follow and offer access to resources (Reymen et al. 2015).

The continuous co-creation of opportunities is related to the effectuation logic based on doing business in unstable environments, which cannot be easily predicted, thus fast reactions to the new situations are needed. Consequently, the change in the external environment is directly linked to constant internal changes in the business organization (Matalamäki, 2017). Additionally, Prashantham et al. (2018) state that international entrepreneurs take advantage

and creatively use their existing networks instead of becoming victims of unexpected situations.

2.2.2 Principles of effectuation

Four principles of effectuation are determined: **affordable loss, strategic alliances, exploitation of contingencies and control of an unpredictable future** (Sarasvathy, 2001). Therefore, entrepreneurs using the effectuation approach, are less likely to gather the existing knowledge of a market or of a firm but they rather exploit contingencies. Furthermore, they do not make competitive analyses but instead invest in strategic alliances and networks which could be helpful for doing business. Moreover, they rather try to control the unpredictable future than to predict an uncertain one. Finally, entrepreneurs determine their affordable loss of a project or action, and not the expected returns. They do not make long-term planning, but they give attention to the short-term actions (Sarasvathy, 2001).

Further explanation of the *four principles of effectuation* is mentioned in Samalopanan & Balasubramaniam's (2020) research paper, **where bird-in-hand, lemonade principle, crazy quilt and affordable loss are mentioned**. As stated by the authors, under *bird-in hand* is meant the ability of the entrepreneurs to find solutions of existing problems and make opportunities with the available resources. With other words, it means that entrepreneurs start doing business activities and finding solutions with the help of the people they know (Prashantham et al., 2018) or more specifically with the 3w: who the entrepreneur is, who he or she knows and what he or she knows. Therefore, entrepreneurs using the effectuation mode do not search for the perfect partner, but they use the existing networks they have (Prashantham et al., 2018). The term *lemonade principle* explains that the exploration of new opportunities will lead to mistakes and surprises, which cannot be avoided (Samalopanan & Balasubramaniam, 2020). However, under the term it is also meant that entrepreneurs tend to revive an old network in case it is needed or to approach new one met accidentally and by fortune, especially in a situation of uncertainty. Therefore, an entrepreneur in this case is defined as a person who wants to embrace surprises when receiving spontaneous suggestions from his or her network contacts (Prashantham et al., 2018).

The *crazy quilt* puts the focus on the importance of potential partnerships, that could increase the possibilities for new funds, ideas, and business directions (Samalopanan & Balasubramaniam, 2020). Finally, with the *affordable loss*, is meant that the investment of the entrepreneurs in the business activities should not depend on their expected gains but on

their readiness to lose (Samalopanan & Balasubramaniam, 2020). According to Prashantham et al. (2018) firms following the effectuation approach internationalize rather influenced by their trusted networks than by risk analysis.

Finally, the difference between causation and effectuation is also explained with the terms **jigsaw puzzle (causation)** and **patchwork quilt approach (effectuation)** (Chandler et al., 2011). The *jigsaw puzzle* approach means that the entrepreneur is creating competitive advantage by determining an existing opportunity of a market and finding the resources for making use of it. On the contrary, the *patchwork quilt approach* means creating (developing) an opportunity through experimentation and flexibility when new information regarding the business becomes available. For the patchwork quilt approach the human action is very important and the core of the flexibility depends on alliances and precommitments from customers, competitors, and suppliers (Chandler et al., 2011).

2.3. Connection between the effectuation and network theory

Kerr & Coviello (2020) define the *effectuation* theory as a ***network-driven and network dependent phenomenon***. According to the authors, the implementation of the effectuation strategies is influenced by the pre-existing and emerging networks of the entrepreneur. Moreover, they also state the importance of co-creation of opportunities with the help of external agents during a situation of uncertainty. Furthermore, the pre-existing networks such as the ones with the friends and family of the entrepreneur can influence the subjective perception of the opportunities. The social capital of the pre-existing networks influences the levels of collaboration and reciprocation, as the entrepreneur's behavior is also influenced by the dominant behavior in the existing network. Moreover, the pre-existing networks can also serve as role models and create opinions about what an entrepreneur is (Kerr & Coviello, 2020). He/she/they is/are responsible for ensuring a successful fulfillment of the interests of all the involved parties. Therefore, when doing business under uncertainty, the focus of the entrepreneur is not only on the traditional problems, such as setting up a business or generating sales, but also on ensuring a good interaction between the involved actors of the networks and stabilizing the processes (Murdock & Varnes, 2018).

The importance of the networks for the entrepreneur's decision-making is also discussed by (Masiello & Izzo, 2019) who state that an entrepreneur would rather use effectuation, meaning his/her/their existing networks when internationalizing in a foreign market, than to invest in making new networks which could be time-consuming and could cause sunk-costs. The

authors also mention the term „*blind or excessive trust*” which is referred to cases when an entrepreneur is not searching for new opportunities because of the existence of too strong networks mainly represented by a very trusted circle of personally known people.

Moreover, also in emerging markets, entrepreneurs use their social networks when internationalizing under uncertainty. In cases such as these markets, where the institutional environment is unreliable, the social networks are used by entrepreneurs for identification of international opportunities. The social networks play an essential role for entrepreneurial firms, as these are more dependent on their networks and personal contacts than large companies. Because of the personnel and financial limitations, entrepreneurial firms use the resources they have the most when internationalizing, which are their networks and contacts (Shirokova & McDougall-Covin, 2012). For instance, advertising new products in foreign markets can be very costly for small firms. Therefore, they use their existent, trusted networks of suppliers, clients, or allied firms to advertise their goods. Moreover, *entrepreneurs use their personal contacts* as firm resources *to scan business opportunities in potential foreign markets and to overcome the liability of smallness, foreignness, or newness* (Felzensztein et al., 2015).

According to Felzensztein et al.’s findings (2015), the *scope and speed of internationalization of entrepreneurial firms depends on the usage of formal and informal networks* of the entrepreneur. The more both are used, the higher is the possibility that multiple export destinations will be targeted (Felzensztein et al., 2015).

In Masiello & Izzo's article (2019) the connection between effectuation and *social networks* is also mentioned, where they state that one should focus on the social networks and not on the business or inter-firm networks to find out *how entrepreneurs recognize international opportunities*.

Moreover, according to (Masiello & Izzo, 2019)’s findings, the *weak social ties* are the ones who play the most important role when SMEs *explore opportunities for internationalization*. SMEs *choose an international market by exploring new opportunities offered by their weak ties and not by planned strategy*. As a planned strategy would be typical for causation and the exploration of opportunity is typical for effectuation, *the connection between effectuation and network theory is shown also in the authors’ findings*.

The importance of the social network can be seen in the entrepreneur’s decision to enter even geographically distant markets, if their social network is strong in the foreign country. The main reason is the „social embeddedness” in the network and the high trust in the social relationships (Masiello & Izzo, 2019) The *identification of new opportunities with the help*

of networks with mentors, business contacts and experts is also shown in a paper by Sarmiento et al. (2016). The study confirms that *networks* are not only helpful and influential in the processes of growth and continuity of a firm, but also in its *internationalization opportunity determination* (Sarmiento et al., 2016).

2.3.1. Effectuation, networks, and the opportunity creation

As stated by Galkina & Jack (2022): „Entrepreneurs engage in experimentation, and the exploration of opportunities that emerge unpredictably from the networking interactions.”

The authors also argue that in a situation under uncertainty the so called „networking entrepreneurs” use the effectuation as a decision-making process. They do not select their networks and the actors in them but in such an uncertain situation they make use of all the networks they currently have, and all interested stakeholders. Consequently, this leads to a co-creation of opportunities or change in the nature of the opportunities as the different actors involved can have different motives which influence the opportunity creation by an entrepreneur (Galkina & Jack, 2022).

There are two distinguishments regarding the forms of opportunity in the literature: **opportunity recognition** and **opportunity creation** (Filser et al., 2020). The opportunity recognition school sees the opportunity as already existing in the market independently of the existence of the entrepreneur. Therefore, his/her/their role is to find or recognize the existing opportunity. On the other hand, the opportunity creation school based on Schumpeter’s research sees an opportunity not as an existing „object” but as a subjective construction built up by an entrepreneur. Therefore, without the entrepreneur, the opportunity would not be „created” and thus not exist on the market. Following the explanation given by the authors, opportunity recognition is typical for the concept of causation and opportunity creation (or development) for effectuation (Filser et al., 2020).

Gregorio et al. (2021) also mention opportunity recognition by explaining it as a **third-person opportunity**. As such the opportunity is enabled by and dependent on the external environment. On the other hand, the opportunity creation (or development) is defined as a **first-person opportunity**. More specifically, the opportunity creation merges the external with the internal environment, thus including factors such as the experience of the entrepreneur, his or her mindset and the social networks. Moreover, the authors explain opportunity recognition as a perception of unmet needs and opportunity creation (or development) as is defined as „tangible actions and interactions toward exploring an opportunity” (Gregorio et al. 2021). Therefore,

the opportunity development is something that is not discovered but it is created with the entrepreneur's imagination and effectuation (Wasdani & Mathew, 2014).

2.4. Start Ups

- ***Definition***

In Austria for startups are considered all innovative firms which were set up in the country from the day of their setting up until five years after it the latest (AWS, 2020)². However, in the ASM as startups are defined firms with innovative products, services, technologies, or business models which do not exist more than 10 years and aim employee or revenue growth (ASM, 2020). Therefore, the sample of the investigation in the following master thesis are Austrian start-ups with innovative products and services, set up in Austria for no longer than 10 years, which were doing business during the years 2020, 2021 and 2022 of the COVID-19 pandemics. Additionally, these must have internationalized or at least planned to internationalize before or during the pandemic. Startups that did not have internationalization ambitions before and during the COVID-19 pandemic were excluded from the sample.

- ***Start Ups, Internationalization and the COVID-19 pandemic***

There are four major principles which influence the early internationalization of start-ups such as the international vision of the founders, the desire to be market leaders in an international environment, the ability for identification of international opportunities and the possession of international contacts, networks, and sales leads (Johnson, 2004).

After the COVID-19 pandemic outbreak, startups faced problems which have endangered their existence on the market (Kuckertz et al., 2020) Firstly, they registered decreased sales, while the fixed costs remained the same. Secondly, the business climate was not favorable for innovation, as their partners, customers and investors were also affected by the crisis which discouraged experimentation. Third, because they suffered from a lack of liquidity, most of them were not profitable after inception, and a lot of them were not qualified for

² AWS – Austrian Wirtschaftsservice
https://www.aws.at/fileadmin/user_upload/Downloads/ergaenzende_Information/Definition_Start-up.pdf

obtaining banking loans. Governmental support to tackle the crisis such as subsidies for short-term work or subsidies for lost turnover were not adequate for innovative startups. Therefore, the first response of the innovative startups on the crisis was not to obtain governmental support but to adjust to the crisis and redirect their technologies to the new customer's market needs. They developed new opportunities and adopted their business models, products, and services with the help of their business networks (Kuckertz et al., 2020). For instance, female entrepreneurs are operating more in industry sectors which were affected by the governmental measures. They responded to the crisis in creative and unique way and reduced risks with the help of local communities by creating new discovery-based business opportunities and changing their business models and services with the goal to meet the needs of the pandemic (Manolova et. al, 2020).

In addition to the recombination of the existing internal resources, innovative startups also made use of external sources such as the goodwill and flexibility of their partners, the support of the startup communities and brokers' social capital (Kuckertz et al., 2020). Furthermore, during the crisis period of a startup, entrepreneurs mostly mentioned sources of supporting networks, such as the family, spouse, or the location. However, entrepreneurs of failed ventures mostly mentioned the opinion that doing business in a different city would increase the possibility of avoiding failure (Samalopanan & Balasubramaniam, 2020). Nevertheless, networks do not only help startups to obtain the needed information and resources, but they also help entrepreneurs to maintain their subjective well-being which afterwards develops resilience and self-efficacy (Newman et al., 2018).

Causation and effectuation were mentioned as important for firms when they decide to innovate, as a strategical response to a crisis (Wenzel et al., 2020). As causation is negatively related to uncertainty and effectuation has a positive relation (Chandler et al., 2011), during a crisis firms tend to use the effectuation approach when they innovate and expand their activities in new sectors or look for new ways for successfully doing business (Wenzel et al., 2020).

- *Internationalization of Austrian Startups*

An important reference for this research are the Austrian Start-up Monitors (ASM, 2021; ASM 2022), surveys which include and analyze Austrian start-up entrepreneurs (ASM, 2022). The vast majority (90%) of the Austrian start-ups already engage in international

markets or are planning to internationalize. However, only each 5th makes profits from the internationalization activities (ASM, 2020). The two Austrian Startup Monitors (2021, 2022) show that the internationalization plans for the next 12 months of the Austrian startups were low in 2020 and decreased even more in 2021.

2.5. What do we know until now about networks and internationalization?

- ***Traditional SMEs***

Masiello & Izzo (2019) tried to investigate the role social networks play for the internationalization of *traditional SMEs* which do not show the characteristics of „born globals” but operate *in low-tech and non-knowledge intensive industries*. The authors mention two potential problems caused by social networks on the internationalization of traditional SMEs. Firstly, they explain the existence of „blind excessive trust” of the entrepreneur in his or her social network. The „blind trust” can restrict the entrepreneur’s ability to foresee, screen or deal with all the opportunities and threads on the existing or potential markets. This would discourage innovation and opportunity search outside of the well-known and trusted circle of networks. Secondly, they point out the importance of the family in family firms which could also lead to blind trust, overly cohesive groups, and hinder innovation by searching for resources and support mainly by family members and friends. Additionally, the authors’ findings show that during the opportunity search and pre-entry phase, small firms use their weak interpersonal ties. However, later, in the post-entry phase these firms use their strong ties and make gentlemen’s agreements based on interpersonal trust (Masiello & Izzo, 2019).

Masiello & Izzo (2019) explain the negative effects of the excessive use of strong ties such as overembedness and unwillingness to stay in a foreign market if a network ends, even though there might be interest on the market for the firm’s products. Moreover, by using strong ties overexcessively, small firms tend to miss attractive markets and would not internationalize because they focus only on the local partners. The authors conclude that small firms willing to internationalize do not make cost-benefit analysis or market research, but they use their networks. Therefore, they define the internationalization process of small firms as „socially embedded” one (Masiello & Izzo, 2019).

Although the research paper by Masiello & Izzo (2019) puts light on the social networks and their influence on the internationalization processes of small firms, there is still a huge gap

when it comes to start-ups. As most of the start-ups are not traditional, mainly technology intensive or at least innovative and they are not managed or owned by a family, Masiello & Izzo's (2019) findings cannot be used to explain the influence social networks would have on the internationalization of start-ups.

- *Emerging economies*

a) Zhou et al. (2007) investigate the role of social networks on the *internationalization process of born-global SMEs*, which is a group that would be more adequate for comparisons with startups. They focus on guanxi-related social networks which are typical for China and represent a group of people who support each other based on reciprocity and trust. According to the authors, these social networks stimulate awareness of opportunities in foreign markets, influence the initiation of export, increase the managerial openness, and develop international vision. Even though, the guanxi social networks are more used for newer SMEs that are interested in internationalization, the results of the following study cannot be used for Austria, as the guanxi social networks are typical for China (Zhou et al., 2007). *China* is an *emerging economy*; thus, the cultural and economic characteristics of the country cannot be compared to Austria. As an emerging economy its main characteristic are the lack of political stability and unpredictability of the governmental decisions. Exactly these reasons lead to the creation of the guanxi-social networks where entrepreneurs decide to rely on the social networks they have instead on the institutions (Zhou et al., 2007).

b) A study by (Shirokova & McDougall-Covin, 2012) also investigated *Russia* as a *developing economy* with low-trust society and the influence social networks have on Russian entrepreneurial firms. The authors point out the usage of informal communication and networks because of the institutional barriers in the country such as lack of legal regulation or political instability. They state that because of the limited financial and personal resources Russian entrepreneurs must rely on their informal networks to internationalize (Shirokova & McDougall Covin, 2012).

Although not the same, one could argue that the COVID-19 pandemic in Austria was characterized with unpredictable governmental decision-making and institutional instability which is similar with the case of China and Russia as emerging economies. However, in Austria social networks such as guanxi in China do not exist or at least were not developed in the past.

Normally, Austria is a high-trust society. Therefore, the results explained above cannot be applied to a developed economy such as Austria. However, decreases in the trust in the government were registered by the Austrian population regardless of age or gender during the COVID-19 pandemic (University of Vienna, 2020). Have social networks in Austria changed their form because of the COVID-19 pandemic? And how did their informal social capital change? Currently, there is a gap on the role social networks played for startups during the COVID-19 pandemic which cannot be completely answered by findings of other authors in the international business field.

- ***Start-ups in developed countries***

Another study focused on *start-ups in developed countries* such as *UK* and the *US* by Johnson (2004) shows that the most important factors influencing early internationalization of high technology start-ups are the sales leads, the international contacts a start-up has and the personal knowledge of the international customers. However, in the study the author does not distinguish between social and business networks. Therefore, it is not clear if these findings can be applied to social networks. Moreover, the author focuses only on high technology start-ups and the purpose of the following research is to get an overview of the international opportunity creation and decision-making of the entrepreneurs of all the Austrian start-ups and not only the ones who operate in the high technology industry. Consequently, there is still a gap, as the results are very specified to one industry and do not distinguish between business and social networks.

- ***Local networks and internationalization***

Idris & Saridakis (2018) investigate *UK's SMEs internationalization* and make a distinction between micro, small and medium enterprises in their paper. According to their findings, informal (or also called, social) networks where they list family, friends, business networks and work colleagues do not have a positive and significant effect of SME's exporting and internationalization. On the contrary, the formal networks (including accountants, banks, and trade associations) do have a significant and positive effect. However, they also state that when informal networks are used simultaneously with formal ones, then the SME's internationalization increases. This is especially important for micro firms. Idris & Saridakis (2018) also state the difference in the firm's networking behavior depending on its

size. The effect of the networks is the lowest for the micro firms who are not willing to internationalize and grow as much as the small firms. Even though the effect of the network increases, when one compares micro to small firms, it does not increase but it disappears when one compares small to medium firms. Micro and small firms' entrepreneurs tend to seek more local networks' help, while medium firms' entrepreneurs seek both, local and formal networks' support (Idris & Saridakis, 2018). According to the authors, new and small firms are the ones that tend to use more local networks as they prefer to obtain information through face-to-face communication. However, this leads to them doing business only in the local area as they are prevented in the opportunity search outside of their local environment (Idris & Saridakis, 2018).

Even though the research by Idris & Saridakis (2018) offers explanation of the differences between the firm sizes, one cannot use the results of micro or even small firms and apply them to start-ups. The reason is the explanation by the authors, that micro or small firms are mostly locally based and not very innovative. Start-ups are defined as firms with innovative products, services, technologies, or business models which aim employee or revenue growth (ASM, 2020). Therefore, even though one can compare these groups based on the number of employees³, a comparison based on the way of doing business might not be the most adequate.

3. Methodology

The following investigation is qualitative research conducted with qualitative interviews as source of primary data. The primary data was gathered with personal interviews with entrepreneurs of Austrian startups.

3.1. Sampling

After determining the „what” or „whom” to investigate i.e. the unit of analysis, the sample size can be determined (Fletcher et al., 2018). As the „*what*” in the following research are the *informal social capital and the opportunity creation* and the „*whom*” are the *entrepreneurs*, the unit of analysis will be a social one. As social units are classified individuals, groups, organizations, communities, or social interactions (Fletcher et al., 2018).

³The average number of start-up employees in Austria is 12,3 per start-up. (*Austrian Startup Monitor 2021*, n.d.)

There is various information in the literature regarding the determination of the sample number (Sim et al., 2018). Although there are many rules of thumbs given by scholars, there is also the critique that determining the sample size in advance in qualitative research can be very problematic, as in an exploratory study it is logically not possible to define how many participants will be needed to provide sufficient information of an unknown phenomenon. Some of the scholars recommend between 12 and 20 respondents in interview studies. Others a minimum of 20 or 30 as a rule of thumb. Apart of a determination of the sample size a priori, also saturation can be used for determining the final number of interviewees. When the findings start to be repetitive and do not lead to new relevant information, then the interviews will reach their final number or the so called, saturation (Sim et al., 2018). Similarly, Fletcher et al. (2018) state the following: „meaningful qualitative research has more to do with the information richness of the selected cases than with the sample size”. This statement is also supported by Patton (2014), who argues that the number of participants depends on the data gathered and how usable it is. The author states that when conducting semi-structured interviews, one needs at least 30-60 interviewees to gather enough data. On the other hand, Patton (2014) argues, that in a case of a phenomenological research because of the repetitive interviews with the same person the data will be deep enough, thus around 6-10 participants will be needed. The following investigation is a phenomenological one, as its focus is on generating theory on a not sufficiently investigated phenomenon (Fletcher et al., 2018). The focus is put on finding out the essence of the experience of a phenomenon and on descriptions of entrepreneurs’ experiences. Therefore, the following investigation tends to find out how entrepreneurs experienced the COVID-19 pandemic and what role, if any, their informal networks played in their internationalization opportunity creation – making during the crisis. The goal is to understand how the entrepreneurs interpret their experiences and their networks during the pandemic. As (Patton, 2014) states, the best way to understand what other people experience is to experience it as directly as possible. The author, thus, concludes that the best way to understand experiences is by observation and in-depth interviews, as with the help of language and in-depth descriptions one can reawaken and fully show a lived experience. Although the investigation is a phenomenon driven research trying to research the lower planning and willingness for internationalization in 2021 than in 2020, there was only one interview per entrepreneur, i.e., that one person was not interviewed many times as mentioned by Patton (2014). However, except for the semi-structured interview, also a network of relationships was drawn by the interviewees during the interview which afterwards was discussed and explained by them. This allowed a discussion of the same issue in two different ways: first, through the drawn network

and second, through the semi-structured questions. Twenty interviews with Austrian entrepreneurs were initially planned. Their final number depended on the depth of the information gathered during the interviewing process.

The search for the start-ups was on the online platform for start-ups Brutkasten as well as on the homepages of Ideentreibwerk and Minted. 102 start-ups were contacted per e-mail and on LinkedIn in a period of around 10 days. Saturation of the answers was reached after the 13-14th interview. Therefore, 15 interviews with start-up entrepreneurs and one with a start-up expert were conducted.

3.2. Process of qualitative interview

Kvale (2007) defines seven stages of interview investigation which will be used in the following paper for the explanation of the research structure:

1. **Thematizing:** Kvale (2007) explains that the decision on which research method to use should be based on the purpose of the study. Therefore, one should previously define „what” should be investigated and „why” and afterwards, one should choose the „how” or the method for information gathering.

Table 1 shows the defined „what” and „why” of the investigation.

What will be investigated?	Why is it relevant?
What role, if any, does informal social capital play in the opportunity creation of Austrian start-ups?	<p>Relevant for the international business literature:</p> <p>There is lack of investigation on the influence informal social capital has on the internationalization activities and opportunity creation of startups.</p> <p>Relevant for the specific phenomenon observed in Austria:</p> <p>There is a decreasing tendency for internationalization of Austrian start-ups since 2020 (the COVID-19 pandemic).</p>

Table 1: Thematizing: „what” should be investigated and „why” is it relevant?

The main reason for choosing qualitative research for the following investigation is because with its help „one can approach the world „out there” and understand, describe and explain social phenomena „from the inside” (Kvale, 2007). Moreover, qualitative research can assess experiences and interactions (Kvale, 2007). Therefore, the experiences Austrian entrepreneurs made with their informal networks will be better understood if they are explained „from the inside” or by the entrepreneurs themselves in a conversation with them.

2. Designing: Personal interviews with 15 Austrian start-up entrepreneurs from 15 different startups and one start-up expert were conducted.

Wai-Chung Yeung (1995) recommends personal interviews as one of the best research methods in international business, as they have relatively high response rate and can gather rich in-depth information about a dynamic phenomenon. Choosing to use personal interviews instead of postal or telephone ones, offers not only better response rate but also the highest flexibility, which is essential in the case of determining entrepreneurs’ decision-making processes.

3. Interviewing: Semi-structured questionnaires were used in the personal interviews with the goal to end with deep and rich nature of the data and strong contextualization (Yeung, 1995). Furthermore, with the semi-structured questions it is possible to cover the relevant topics and still be flexible during the interview (Morrish & Earl, 2020). To deeply understand the respondent’s points of views and rationale, an open communication between the respondents and the interviewer was practiced (Yeung, 1995). Moreover, also a projective technique was implemented during the interview where the entrepreneurs were asked to draw a network of their most important and influential informal networks during the COVID-19 pandemic. Afterwards, the respondents were asked to explain the network in more details and open questions were asked for getting in-depth information. All the interviews were recorded and lasted around 1 hour on the average.

4. Transcribing: All the interviews were transcribed from oral speech to written text.

5. Analyzing: The units of analysis are entrepreneurs i.e., the owner(s), the entrepreneur, or the top manager of the start-up with focus on their informal social capital. The reason for choosing the top managers is because they are primary source of information about a start-ups’ evolution and development (Shirokova & McDougall-Covin, 2012).

The approach for qualitative data analysis is explained in Chapter 3.3.

6. Verifying (quality criteria): The validity of the answers by the respondents will depend on the deep understanding of the entrepreneur’s reasonings and experiences (Yeung, 1995). To ensure validity of the data, two sources were used. Therefore, the personal interviews were complemented by a drawn network of entrepreneur’s informal relationships. This decreased the

data misinterpretation and increased the confidence and validity of the data, as more sources were used for the final findings (Morrish & Earl, 2020). Additionally, by conducting interviews of around 60-70 minutes an in-depth information was gathered by the interviewees. Finally with the use of respondent's quotations reliability of the data is ensured (Masiello & Izzo, 2019).

7. Reporting: The outcomes and findings are reported in the following sections.

3.3. Qualitative Data Analysis

For a qualitative data analysis Kvale's model (2007) and Gioia's method (Nag et al., 2007) are often used.

In Kvale's (2007) model for qualitative analysis the focus is on the meaning by coding, condensation, and interpretation.

Firstly, during the meaning coding, the interviews are analyzed in matrixes including themes (also called categories) and quotations. However, as stated by Kvale (2007) during the personal interviews the themes can change, and new ones can be added in case new important information arises. This process of constant comparison and categorization of the quotations ends when no new information appears and consequently, „theoretical saturation” is reached (Masiello & Izzo, 2019).

Secondly, with the meaning condensation, the interviewees' answers are shortened into briefer formulations. The reason for using meaning condensation is to rephrase the statements in a few words which would allow systematical analysis of the data (Kvale, 2007).

For a more in-depth analysis of the qualitative data, instead of Kvale's (2007) model Gioia's method will be used (Gioia et al., 2013; Nag et al., 2007). The codes and the meaning condensation used by Kvale (2007) are called „first order categories” in Gioia's method (Gioia et al., 2013; Nag et al., 2007). These codes are meaningful to the informants. (Gioia et al., 2013; Nag et al., 2007) The first order categories are the lowest level of category and represent quotes by interviewees with similar meaning which are combined in one first order category. Combining first-order categories into more abstract categories leads to the creation of second-order themes. These themes are meaningful to the researcher. At the end, the second-order themes are analyzed with even higher abstraction and overarching dimensions are created. These as a contribution of the following research to the theory represent developing process though time (Gioia et al., 2013; Nag et al., 2007).

For the Gioia's method analysis, the following four dimensions were determined with the help

of the excising literature:

1) Formal, informal and local networks;

2) Opportunity creation;

3) COVID-19 pandemic and opportunity creation for internationalization;

4) Trust;

In figure 1 is shown the analysis with seventeen first order categories which are then combined into seven second order categories. At the end the second order categories are analyzed with higher abstraction and two overarching dimensions are created.

Results

a) First order categories

In table 2 in the appendix is given a detailed analysis of the first order categories which help creating the second order categories.

b) Second order categories

From the seventeen first order categories in the Gioia method analysis shown in figure 1 and table 2 in the appendix, the following seven second order categories are created:

- *First contacts are formal, the more private things are shared, the informal a relationship gets.*
- *Trust in the person, instead of trust in a specific network.*
- *Due to the online meetings and the lack of personal contact the typical informal networking during start-up events was transformed into formal.*
- *Creating opportunities by „accident“ by the newly created informal networks was hindered during the pandemic due to the no creation of new external informal relationships.*
- *COVID-19 caused lack of external informal networks which influenced the internationalization opportunity creation negatively. However, this helped start-ups to focus and improve their internal structures.*
- *The industry and the business model of the start-up influenced the need for external informal social capital for opportunity creation for internationalization during the COVID-19 pandemic.*
- *Generally, there are not enough opportunities in Austria for international networking, as the start-up events are mainly regional.*

The second order categories sum up the main findings of the interviews conducted with the start-up entrepreneurs.

Firstly, the **creation of external social capital by the external informal networks of the entrepreneurs was hindered in Austria during the COVID-19 pandemic due to the lock down measures:** „*I would say nobody left. Because it was just... changing of... not specifically communication but it was not in person it was online. That's the only thing that changed. And for sure... all the events. This personal contact and opportunities were gone during the pandemic.*” – entrepreneur 4. As each contact starts as formal one and consequently an informal setting is created, **during the online events, the creation of informal settings was not**

possible. Entrepreneurs could **not meet people in person and share their ideas and concerns so that they would get feedback, support, and help from other entrepreneurs.** Thus, the **creation of opportunities by „accident”, by just talking about one’s business or current issues, was not possible.** As entrepreneur A stated: *„There were rarely interactions... and for such opportunities... they don’t really happen online. And they usually come up out of informal situations when you have a chat, when you get to know problems and situations at their companies, how they’re trying to solve it. And that’s quite informal talks at the coffee machine or at the bar. And... so it was less – almost nonexistent.”*

Secondly, formal and informal networks are interconnected and increase each other respectively: *„Of course, you meet them and you have this network. In Cyprus you have this network, events, we sit there, we talk about stuff. We have agenda, we follow it and then it’s open! And from that moment it becomes informal. It transforms to this informal event, because you know each other.”* – entrepreneur 11. However, **this interconnectedness was not possible due to the non-existence of possibilities for creation of new external informal networks.**

Nevertheless, **the already existing informal networks helped entrepreneurs to internationalize and survive on the market during the COVID-19 pandemic.** Entrepreneur 4 explains the importance of his father’s (also co-founder of the start-up) already existing external informal networks for opportunity creation during the pandemic: *„I think the most important things... connections came from my father’s sailing network. Because he is doing it for... I don’t know... 40 years now. And he knows nearly everything and everyone that is connected to sailing.”*

However, these were not that important for internationalization during the COVID-19 pandemic for every start-up as this tends to be the usual case without pandemic: *„It’s hard to say a general answer to this question. Because it depends on the industry. Some industries did not have any barriers for internationalization and in some cases it was impossible to do it. For example, an IT start-up, some software. There were not any barriers”.* – Entrepreneur 3 explains that for some start-ups the COVID-19 pandemic even opened new markets, while others could not operate normally.

The impact of the COVID-19 pandemic on the internationalization of the start-up was dependent on the business model of the start-up and the industry it is operating in. Some start-ups, such as the ones offering IT, digitalization and software services, not only that were not negatively affected by the pandemic, but their markets even increased as people started to use online services more than they did before the pandemic: *„Because we saw, aha there is opportunity, there is now a limited number of guests... and we have a solution, we can provide*

a funeral live-streaming service... we launched this, we communicated this... also used it as a PR tool, and this really boosted revenue in these months, just by, you know, a tiny heck, but... it was an opportunity, where we saw a market need and had all the tools available to fulfil this need.” - entrepreneur 5.

Moreover, as people got used to working remotely and being contacted online, a lot of **start-ups started looking for sources for internationalization on the Internet, which was not the case before the pandemic.** Thus, the international networks which could not be found in Austria, were searched on the Internet. **The increased demand for online services decreased the need of the start-ups who are offering them, for external social networks and external social capital, as also without these internationalization was easily possible.** On the other hand, **after the lockdown,** even for the start-ups positively affected by the pandemic, **the need for external informal social capital increased,** as although consumers buy products and services online more than before, they now also seek for offline settings.

Consequently, for these start-ups the external informal social capital did not have a big impact on their successful internationalization during the COVID-19 pandemic. However, after the lockdowns there is need for start-up events where external informal social capital would be created. Generally, **the start-up events in Austria are not made with the purpose of offering international networking.** Thus, **the non-existence of in person start-up events in Austria did not have a huge impact on the internationalization of Austrian start-ups during the pandemic.** The main focus of the Austrian start-up events is put on regional and local networking, founding, funding, and regional opportunities: *„When we compare it to Germany for example, there is an extreme amount of events connecting founders to each other. So, there are many startup-events and in Austria we don't have an event like this. I would say that there are not enough opportunities for internationalization in Austria.*” - entrepreneur 9. Consequently, the creation of opportunities for internationalization with the help of the external informal networks has a regional focus and hinders opportunities for international markets. Therefore, the external social capital created is mainly local one and has local purposes.

Third, the **pandemic had a negative influence on the external informal networks of the entrepreneur (the ones with actors outside of the firm), however it had a positive influence on the internal informal networks between employees:** *„Our employees were a very good network for us. Because it really strengthened our bond with each and every one.*” – entrepreneur 12. The number of international teams increased, employees were dispersed on different locations which consequently increased their internal informal networks on more locations and also teambuilding between the entrepreneur and the employees and other co-

founders got stronger: „And then like the internet and the digitalization allowed us to scale massively and internationally. So, we are a decentralized team that works partially remotely meaning that we have members working remotely from 26 countries mostly in Europe. And so almost every European country is represented there but also from the Americas, from Africa as well and from, yeah Asia, so mainly in Malaysia, this kind of area.”- entrepreneur 6. Thus, on the long-term, the **COVID-19 pandemic had a positive effect on the internationalization of some start-ups, as employees and entrepreneurs did not have to stay in Austria or in a specific city, but they could work all over the world. However, the focus of the internal informal social capital was on the survival of the business, and not on the internationalization.**

Fourth, entrepreneurs mentioned the multiplier-effect of the external informal networks as the main external social capital gained by them. This means that the external informal networks offer opportunity creation due to advice, contacts and knowledge-sharing between people who have external informal relationships. Entrepreneur 8 states: „So network is always important. It is not only important during a crisis like the Covid-19 crisis we had. Network is for a company a kind of... a catalyzer. It helps you to grow faster, it helps you to connect also with customers, business partners and so on and to form deeper business relationships. Hm. They are some kind of a door openers.” Even though, the social capital by external informal networks could not increase or multiply during the COVID-19 pandemic, it still did not disappear. It just changed its form into a call or an online chat instead of meeting in person. Thus, **the already existing external social capital could not increase a lot, but it was still present offering support and help to the entrepreneurs during the pandemic.**

Fifth, as the pandemic offered more online possibilities, more start-ups decided to make the first step for internationalization a little bit before than they would if there were no pandemic. **The COVID-19 pandemic encouraged internationalization, as for the first time networks which normally would not be present in Austria became present or reachable on a global level on the Internet:** „So, I, I just tried to get them. Via LinkedIn, as I already mentioned. You just write them.” – Entrepreneur 13. However, these opportunities and their creation is not defined as informal anymore but more as formal due to its digital formats.

To sum up, the external informal social networks were low during the pandemic. However, the pandemic opened new markets for some start-ups, thus the creation of opportunities was not strongly dependent on the external social networks but more on the market and the external environment. Without the pandemic the creation of opportunities for internationalization due to informal external social capital would be easier, as personal contact would be possible: „Hm,

during the pandemic it was much more difficult. Because people don't see you. They are getting tons of e-mails, I guess. And then, they are like: „Okay, that's another beverage thing!’’ - entrepreneur 13.

c) Two overarching categories

The seven second order categories are analyzed on a more abstract level and two overarching categories are created:

- *External and internal informal social capital were differently present during the pandemic. Thus, they had different influence on the opportunity creation for internationalization during that period.*
 - *No new creation of external informal social capital. Thus, no opportunities for internationalization are created.*
 - *Increase in the internal informal social capital. However, its focus is on survival of the business and not primary on internationalization.*
 - *Only old external informal social capital created opportunities for internationalization.*
- *In Austria there is general need for start-up events with international networking opportunities, as well as link between the regional start-up events in the country.*

Firstly, while the literature tries to **categorize networks into formal or informal**, the following findings show that such **categorization can only be done temporarily and for a certain period of time**. According to the answers of the respondents the same network can be formal, and then informal or vice versa. A local network can also be formal or informal, and at some moment even both. Therefore, it is very important to **categorize networks based on the time period and most of all, on their current purpose**. If the purpose of the network is to share information or knowledge and to give support and help, then it is an informal one. If the purpose of a relationship is to reach a business goal with monetarily benefits and if it is stipulated in a contract, then it is a formal one.

Secondly, **social capital should not be seen as one concept but as a broad dimension depending on two concepts: internal and external social capital**. Thus, depending on the source for social capital, this one can be external or internal. The **internal one is created by the internal connections created inside of the start-up** and the **external one is created by the external connections outside of the start-up**. These two, were differently influenced during the pandemic and had a different influence on the opportunity creation for internationalization. While the internal informal capital got stronger and increased the

survival strength of the start-ups, the external informal capital was helpful but only to the ones who already had it. New external informal capital was not easily created. Thus, creation of opportunities for internationalization with the help of both new (external and internal) social capitals was lower during the pandemic. Only the ones who had old external social capital could use it for internationalization.

However, the **start-ups which were positively affected by the pandemic increased their internationalization during the pandemic, but this was not a result of their informal social networks but of the market itself and the increased demand.**

The practical implication is related to the second overarching dimension, which implies that, generally, **in Austria there is need for start-up events with international guests which would increase the international networking.** The current events are very locally and regionally concentrated which hinders the current internationalization of the Austrian start-ups. Compared to other neighboring capital cities, in Vienna, there is not a relevant start-up event which would be internationally attractive and competitive. As already mentioned with the first overarching dimension, external informal connections are essential for opportunity creation and knowledge sharing, thus offering informal settings during the events should be of a high priority: *„I think there is a need to centralize them, to merge them. The problem is that there are so many small events and they are all in their way.”* – entrepreneur 8.

5. Discussion

The literature qualifies the relationships with the **family, friends, classmates, and previous business partners as informal networks** (Shirkova & McDougall Covin, 2012; Birley 1985). This is also confirmed by the following investigation. However, a further group which is not mentioned as such in the literature and thus it is a contribution to the literature by the following investigation is **the start-up community as the most important informal network** of Austria's start-up entrepreneurs for decision-making and opportunity creation for internationalization. In the social-network literature as informal social capital are defined the resources gained by the family, friends, and relatives as being the ones with whom the strong ties are developed (Yavuz, 2021). The weak ties, on the contrary generate formal social capital. However, the findings of the following investigation show that **the start-up community** (which is not mentioned by Yavuz (2021)) but according to the criteria would create formal social capital) **creates informal social capital.** On the other hand, Kuckertz et al., (2020) mention the

start-up community as an external informal network which is in line with the following investigation.

Moreover, the findings of the following study show how important the timing is and that start-up communities can lead to formal but also to informal social capital depending on the frequency of the meetings and the timing during the start-up event. At the beginning start-up communities create formal social capital, but later also informal which is the dominant one created by them.

The following investigation also confirms the findings by Samalopanan & Balasubramaniam (2020) and (Newman et al., 2018) that the role of the **family is mainly supportive and helps entrepreneurs to maintain the subjective well-being**. An example would be a statement by entrepreneur 2: *„First of all, the psychological thing, the personal support that you need to keep on going. If I wouldn't have this security net of people who support me and tell me: „You can do it, you... don't worry about it that much'' and stuff like that. On the other hand, I think taking some kind of risk in a company context is also not possible if you are in a negative mindset.''*

On the contrary, the help by the **start-up community and the recombination of the existing internal resources were the main source for survival and partly also for opportunity creation during the COVID-19** pandemic according to the findings of the following investigation which also confirms the statements in the literature (Kuckertz et al., 2020).

The **distinguishment** between **external** (with actors outside of the organization) and **internal** (between employees) **informal networks** which was made by (Dymitrowski et al., 2019), is also supported by the findings of the following investigation. Dymitrowski et al. (2019), state that the external informal networks are the ones which affect the internationalization process of the firm. This was also confirmed by the statements of the entrepreneurs who during the COVID-19 pandemic mentioned the strong development of internal informal networks and improvement of the internal structures. However, these internal informal networks did not have a real impact on the internationalization of the start-ups but they just helped to improve the team spirit and organizational and operative structures inside the business. On the other hand, the external informal networks were negatively affected by the COVID-19 pandemic which decreased the internationalization speed, as the multiplier effect of the newly created external informal networks was hindered and only the already existent informal external networks were used. For instance, entrepreneur 12 stated: *„Our employees were very good network for us. Because it really strengthened our bond with each. Because especially in the beginning when nobody really knew anything we only had very few people at the regular base. They did meet in person, but they had each separate rooms and all that stuff. Hm... we still made a video call*

once a day. In the evening, so everyone could tell his or her feelings. What he is grateful for... it really strengthened the bond with our employees and us and it made us a better company.”

This confirms the existence of the internal networks which did not have an impact in the internationalization process: *„Well, they helped a lot but it’s mostly: we (meant: the founders) lead the way and they very trustfully follow. So, they don’t create the opportunities itself, but they follow the idea of the company.”*

Moreover, Morrish & Earl (2020)’s statements that **social (personal) networks lead to development of different resources (also called social capital)** was also confirmed by the following investigation. Entrepreneur 5 explains that with the help of their social networks Start-up 5 could supply the sudden high demand during the COVID-19 pandemic: *„And obviously, we felt this in terms of how much demand there is for our service, and then you as a young company you don’t have plenty of resources, and all your processes are not setup in a perfect way, you quickly reach a point where it gets overwhelming; in terms of like how much work there is, and how much resources you have. Um, and we have very well-established connections to our suppliers, and this helped that they can, you know, provide us with materials quickly, and make free up resources, so this was very important, having this deep and solid relationship with key suppliers in this period.”*

The **informal networks** (or synonymously also known as **social networks** in the literature), **are less structured than the formal ones which are structured and formalized** (Morrish & Earl, 2020). This was also confirmed by the findings of the following master thesis, as the start-ups entrepreneurs described informal networks as non-binding, non-obligatory ones, which do not have a structure, are not formalized and are based on reciprocity instead of monetary benefits. An example is a statement made by entrepreneur 2: *„So, the way you interact with those people, if you are „per du or per Sie” that makes it a lot more formal or. There are probably more e-mails, you do stuff a lot more after a plan and very more structured if you work with people who you don’t know that well, who you have a more formal relationship. And on the other hand, if you have an informal one it’s, I think it’s more direct talk, you have more meetings, the communication is on the one hand, a lot better because you can meet with them at anytime you want.”*

Further finding of the following investigation also supports the explanation given by Idris & Saridakis (2018), that entrepreneurs tend to **use their informal networks rather at the beginning when the business is relatively new**, while **later** they use the **formal ones for growing and increasing in the economic returns**. This was also the case with the start-ups interviewed. One of them is Start-Up 2, founded during the COVID-19 pandemic. Entrepreneur

2 stated: „I think that pervious co-workers were the most important in the beginning. Because the first partnership came from the previous connections. And now they are still bringing in projects, and they are still important. But probably now this has snow-balled a little bit because we got those first business connections from the personal connections and now, we get future business connection from positive experiences with us. So, a company was referred to us by a personal relationship and then the company refers us to another company, and we can do something for them. So, the network is now branching and it's going a lot faster.”

Moreover, the existing thesis in the literature **that social (informal) and business (formal) networks are very connected and in a continuum** (Shirkova & McDougall Covin, 2012) was also confirmed by the following master thesis. Informal and formal networks are interconnected and they can influence and increase each other respectively. For instance, entrepreneur 6 clarifies this issue: „Creating a formal network with someone will bring about additional informal networks to colleagues of people that you are working with, affiliations that they have. But then at the same time anyone in your informal network has, is in a much better position to be a part of you formal network, to be needed and then once again if they become part of your formal network, then it will once again expand you informal network.”

Furthermore, other statements in the literature by Idris & Saridakis (2018) such as the **use of formal and informal networks in combination for internationalization decision making** were also confirmed by the following investigation. More specifically, Idris & Saridakis (2018) mention the use of consultants and enterprise partnerships which was very similar to the statements made by the entrepreneurs interviewed. For instance, entrepreneur 3 states: „In Munich, in Berlin it was always a mixture of... working together with the student consultancies, using private networks, getting a grasp on the market and just deciding based on that where to go next.”

Additionally, Idris & Saridakis (2018) and Zhou et al. (2007) explain the importance of the **interpersonal networks** as „a group that consists of **people from whom the owner-manager obtains advice, information and support.**” Masiello & Izzo (2019) also mention that **strong ties help creating and evaluating new opportunities**. The interpersonal networks and the strong ties are synonymous in the literature to the informal networks. These statements are also supported by the following investigation as all the entrepreneurs mentioned that the start-up communities (informal network) offer knowledge exchange, share information, and are used for getting advice and support when creating an opportunity for internationalization or making a decision about it. An example is a statement made by entrepreneur 9: „So, we (meant: the start-up community) talk a lot, we exchange about the current global topics and about startups

and about all the stuff in this market segment. We help each other by exchanging contacts of important people which you can get in touch with and so on. And that's maybe, I would say, that's the most important thing as an entrepreneur, as an innovative person. If you have an idea, you have to talk about this idea. Because only if you talk about it, you can develop it.''

Thus this statement and all the related answers by the other entrepreneurs confirm not only the arguments by Idris & Saridakis (2018) on the **network theory**, but also the ones by the **crazy quilt principle** of the **effectuation theory** (Samalopanan & Balasubramaniam, 2020; Prashantham et al, 2018) which means finding solutions with the help of the people the entrepreneur knows and putting the focus on potential partnerships that could increase the possibilities for new funds, ideas and business directions.

Finally, this investigation confirms Dymitrowski et al. (2019)'s findings who describe **informal networks are ones where actors have different opinions and perspectives which could lead to very creative solutions of a problem**. Thus, the informal networks of the start-ups' entrepreneurs lead to creative solutions and opportunity creation which allowed „out of the box'' thinking, which might not be always present internally in the start-up due to routine tasks. An example is the following statement by entrepreneur 4: *„We try to improve our product all the time so sometimes it's good to ask someone if the person has an idea to make it better. And the best thing is that... if people have no idea or no clue in that specific area most of the time the best things come out of it! My cousins, uncles...''*

6. Conclusion

The goal of the following investigation was to put the focus on a potential connection between informal social capital and opportunity creation for internationalization, as a not sufficiently researched topic in the international business literature. Up to now, the focus in the literature was put on the formal networks as these were considered for more important and more impactful ones. However, the findings of the following study, show that for innovative start-ups the informal social capital is essential and very important for existence on the Austrian market and for internationalization.

The informal social capital in the following study distinguishes between external and internal informal social capital. The external informal social capital is represented in form of advice, support and help from the start-up community, friends, family, and past collages of the entrepreneurs. The most important for internationalization are the start-up events and the start-up community where the external informal networks can rapidly increase. However, during the

COVID-19 pandemic, due to the lock downs the external informal networks could not increase and offer increased internationalization opportunities for the Austrian start-ups. Nevertheless, even though the external informal social capital has not increased, it did not decrease either. The already existing informal networks stayed present, but they changed their form. During the pandemic the personal contacts were replaced with online chats, mobile groups and calls. The existing social capital helped start-up entrepreneurs to overcome the pandemic and manage the business and legal challenges on the national but also on international markets.

To sum up, the lack of increase in the external informal social capital of the Austrian start-up entrepreneurs did not have a huge negative impact on the opportunity creation for internationalization, as the already existing informal networks offered international connections. Moreover, start-up entrepreneurs started looking for new networks by themselves on the Internet, as the online possibilities and the willingness to cooperate online increased on a global level due to the pandemic lockdowns. This led to increased internationalization during the pandemic of innovative start-ups offering IT and digitalization services.

7. Limitations, ethical issues and recommendations for further research

The main limitation of the research results come from the qualitative nature of the method. As the interviews are not objective and cannot be generalized, their implications are only limited, and further quantitative research is needed to confirm the most important findings of the following investigation for all Austrian startups and not only for the ones whose entrepreneurs are interviewed. Additionally, because of the subjective interpretation of the answers and the observation, the interviewer might wrongly influence the findings of the interviews. To handle with this limitation, except for the personal interviews conducted, the interviewees also draw a network of their most important connections during the pandemic and later on explained it in detail referring to formal, informal and local networks as well as opportunity creators. The networks can be seen in the appendix of the study.

Moreover, because of the lack of anonymity of the respondents, these can give biased answers, as they might be unwilling to provide confidential information to the interviewer. To lower the impact of this limitation all respondents were informed in advance that all the interviews will be anonymous as well as that the real names of their drawn networks will be changed.

Additionally, after all the interviews with the start-up entrepreneurs also one interview with a start-up expert was conducted to analyze additionally from a different perspective the most frequent answers of the entrepreneurs.

Further limitations come from the time duration of the interviews. Although the initial goal was to conduct interviews with approximately 60-80 minutes length, some of the entrepreneurs had spontaneous meetings and we had to conduct the interviews in a shorter timeframe. Thus, there are 9 interviews longer than 50 minutes, 13 interviews longer than 40 minutes, but also 3 interviews with less than 40 minutes. The shortest one is around 28 minutes and the longest one more than 2 hours. There are also 3 interviews longer than 1 hour. Although one could argue that there is a huge difference between the depth of the interviews of 2 hours and 28 minutes, every interview contributed to the findings which are repetitive and likeminded in most of the questions. However, further research could try to investigate the issues with interviews of a more similar length.

Finally, the sample selection of the start-ups was general and not sector specific with the goal to determine general challenges of the start-ups and the general benefits of the informal social capital for all types of start-ups. However, further research could put the focus on separate sectors and try to find some differences within the same sector. Additionally, there was no geographical distinguishment between the cities or provinces in Austria. Thus, further research could put the focus on one specific region.

8. Findings: contribution(s) to theory and practice

a) Categorization

The developed research question for the master thesis was the following one: „*What role, if any, does informal social capital play in the opportunity creation of Austrian start-ups during the COVID-19 pandemic?*”.

According to the statements by the start-up entrepreneurs to answer this question one has to separate the Austrian start-ups in two groups:

1. Start-ups negatively affected by the COVID-19 pandemic;
2. Start-ups positively affected by the COVID-19 pandemic;

The categorization is based on the business model of the start-up and the industry/business sector it is operating in. No other factors were determined for the categorization.

- Start-ups negatively affected by the COVID-19 pandemic

This category includes firms which were mainly operating in the B2B sector, as most of the firms were not willing to increase their networks during the pandemic and to work with unknown partners. Moreover, start-ups whose sales strongly depend on the start-up events or fairs for sale and networking were also negatively affected during the pandemic. Due to the

unwillingness for networking by the large firms and the non-existent start-up events and fairs no new informal networks were created. This led to lack of creation of external informal social capital which consequently means low internationalization opportunities created due to the external informal networks.

- Start-ups positively affected by the COVID-19 pandemic

This category includes firms which were mainly operating in the B2C sector, as the online shopping increased during the COVID-19 pandemic. Most positively affected sectors were the food and beverage sector as well as all start-ups offering completely or partially online (IT, software) services.

As the informal social capital are the resources created by the informal networks of the start-ups' entrepreneurs it is important to look at the change in the networks but also at the need for them during the pandemic.

The first group of start-ups (negatively affected by the pandemic) could not increase their external informal networks and thus the creation of opportunities for internationalization decreased. According to the interviewees, external informal networking opens possibilities for new markets due to recommendation of new contacts, sharing experiences, knowledge and help. However, even though there were no new external informal networks created, the old ones were still strongly used in the tough situation for creating opportunities for internationalization.

The second group of start-ups (positively affected by the pandemic) had a totally different starting position. Although they also could not go to events and meet new external informal networks, the need for these decreased due to the not „natural” fast increase of demand. Even though the restaurants were closed, people continued consuming food and beverage products by the supermarkets. Also, the IT sector and all start-ups offering online services had a very high demand which decreased the need for informal networks, as an opportunity was already created by the pandemic. Moreover, as some of the start-ups had to digitalize their services even more and people got used to contact online, looking for new networks online on the Internet was not a tabu topic for the entrepreneurs any longer. As networking was not allowed in person, they started looking for them on the Internet (LinkedIn, webpages etc.). Therefore, the external informal networks were strongly wished but they were no longer essential for the survival and the creation of internationalization opportunities of these start-ups and thus the external informal social capital decreased due to the COVID-19 pandemic. Consequently, also the creation of opportunities for internationalization with the help of these external informal networks decreased.

b) Contribution to the theory

The investigation of the following research paper contributes to the theory of social capital by improving the knowledge on the influence informal networks have on the internationalization opportunity creation of start-ups' entrepreneurs during the COVID-19 pandemic. As there is a gap in the literature which mainly focuses on the formal networks and internationalization, the following master thesis helps understanding entrepreneurs' internationalization decision-making and opportunity creation and the potential connection to the informal networks.

First, due to the findings, the following investigation makes **two subcategories** of the concept informal social capital: **external and internal informal social capital**. These two subcategories do not exist as such in the current literature, as informal social capital is seen as one and it is mainly defined as resource by the informal (interpersonal network) of the entrepreneur. However, according to the interviews with the start-up founders there is a difference between the types of informal social networks. Most important, there was also a difference in the way these informal networks created opportunities for internationalization during the COVID-19 pandemic. Therefore, defining the gained resources by all the informal networks simply as informal social capital would not be correct for the findings of the following investigation. Thus, the following master thesis distinguishes between internal and external informal social capital. As **sources of external informal social capital are defined friends, family, past colleagues, mentors, students and other start-up founders**. All the players that are not directly involved in the business and do not have any monetarily benefits of it. On the contrary **internal informal social capital are resources which are gained by the internal players in a start-up, here being included the team, the founders, or shortly - all the employees of the start-up**. As both groups were differently influenced by the pandemic also the influence of their informal social capital differently influenced the opportunity creation of the start-up during the COVID-19 pandemic.

While the external informal social capital was restricted due to the lockdown measures, the internal informal social capital: 1) firstly, got stronger, as teams looked for new ideas and ways for survival of the business 2) secondly, got more international, as teams could work all over the world. Thus, while the **external informal social capital** was mainly inexistent, as there were no start-up events in person and most of them were online (which transformed the possibilities for new external informal networks from informal to formal ones), the **internal informal social capital** was the one that saved the start-ups during the COVID-19 pandemic. Second, related to the findings explained above, this investigation contributes to **the network theory as it shows that one cannot and should not easily distinguish between informal and**

formal networks as well as to define the informal social capital as only one concept for itself. The following investigation shows that the networks are very interrelated and influence each other, but at the same time they can change and become formal from informal or vice versa. Here once again one should put the focus not mainly on the existing strict definitions in the literature but to look at the time period and at the purpose of the network. According to the findings, the most opportunities for internationalization were created through the informal networks, and more specifically, through the **already existing informal networks**. Therefore, the old (already existing, before the pandemic) external social capital had the biggest positive influence on the opportunity creation during the COVID-19 pandemic for start-ups in Austria. The newly created internal social capital saved the internal operations and led to survival of the start-ups during the crisis. There was no creation of new external social capital during that period, thus also no creation of new opportunities for internationalization by it.

Third, the findings contribute to the **effectuation theory by confirming the bird-in-hand principle** (making use of the existing networks in a situation of uncertainty without looking for new ones).

c) Contribution to the practice

The main practical contribution of the following research is **putting the focus on the start-up communities as main external informal networks for creation of opportunities for internationalization**. The shared opinion by the entrepreneurs interviewed was that there is need for improvement of the start-up events in Austria.

The findings could motivate policy changes which could improve the business climate for start-ups in Austria and increase their external informal social capital and internationalization. The findings show that **organizing start-ups events in Austria with international guests** will increase the international external informal social capital of the start-ups' entrepreneurs and thus it will increase the creation of opportunity for internationalization. These events should be financially accessible for all start-ups, put the focus on a higher variety of industries and offer more possibilities for informal gatherings and after-workshop/after-work meetings. Moreover, the local events in Austria should be merged and offer a national event instead of regionally dispersed, small events. Having such changes will not only improve the creation of opportunities for internationalization for Austrian start-ups but also make Vienna internationally attractive center for start-up networking as currently many European capital cities are.

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10. Appendix

Zusammenfassung

Das Ziel der folgenden Masterarbeit ist es, das informelle Sozialkapital von Startup-Unternehmer*innen und deren möglichen Einfluss auf die Schaffung von Internationalisierungsmöglichkeiten während der COVID-19 Pandemie in Österreich zu untersuchen.

Als informelle Netzwerke werden in der folgenden Studie Freund*innen, Familie oder die Startup-Community definiert. Da die meisten Startups die Kriterien für die Unterstützung durch ein formelles Netzwerk, wie z.B. Bankkredite oder staatliche Unterstützung während der Krise, nicht erfüllten, waren die informellen Netzwerke die von den Unternehmer*innen am häufigsten genutzte Ressource für ihre Effektuationsaktivitäten. Indem sie ihre vorhandenen Ressourcen und informellen Netzwerke nutzten, schufen die Unternehmer*innen neue Möglichkeiten mit lokalen Netzwerken, um die Bedürfnisse der Verbraucher*innen während der Krise zu erfüllen. Laut ASM (2021, 2022) gibt es jedoch eine Tendenz zu weniger Internationalisierung und einer geringeren Planung für die zukünftige Internationalisierung von österreichischen Startups während der COVID-19-Pandemie. Die Nutzung (vor allem lokaler) informeller Netzwerke war in dieser Zeit hoch, jedoch ist der Einfluss informellen Sozialkapitals auf die Schaffung von Chancen für Startups noch immer eine unerforschte Lücke in der internationalen Wirtschafts- und Netzwerkliteratur.

Die folgende Studie zielt daher darauf ab, den Einfluss des informellen Sozialkapitals auf die Internationalisierungsmöglichkeiten österreichischer Startup-Unternehmen zu untersuchen.

Questionnaire

Introduction:

- Present the topic and research question of the thesis.
- Ask for consent to record the interview and let the participant be aware that the interview is anonymous.
- I will ask open-ended questions, so please elaborate your answers as much as possible.
- Do you have any questions before we start?

Background information of the interviewee and the firm:

1. Name
2. Can you please describe your start-up shortly and your role in the start-up?
 - a. What industries does your start-up service? And in what countries has it internationalized? Could you offer an example?
 - b. What does the term „opportunity” mean to you? Please provide an example. Would you like to describe the last time you created an opportunity for internationalization?
 - c. Do you have any previous relationships (connections) that you feel were helpful for your opportunity identification? Please offer an example of the way they were helpful.

Drawing Networks:

3. **Would you like to draw a network of the most important relationships you had during the COVID-19 pandemic?**
 - a) Could you explain the drawn network?
 - b) What was the reason you had this network during the pandemic? How has the network facilitated / constrained operations?
 - c) Could you tell me more about the influence this network had on your opportunity recognition during the pandemic?
4. **How has this network changed in comparison to the one you had before the pandemic?**
 - a. Could you please show how? You can draw the changes if there were some.
 - b. Why has the network changed? Can you offer an example?
 - c. How has the changed network influenced your international opportunity recognition? Could you give an example?

Digging deeper:

5. What would you define as informal relationships? Can you give some examples?
SHOW
6. What are formal relationships for you? Can you give some examples? SHOW
7. What was the role of your informal relationships for opportunity recognition during the COVID-19 pandemic? (Only if not specifically explained indirectly above – with the answers to question 3 and 4)
8. What was the role of your formal relationships for opportunity recognition during the COVID-19 pandemic? (Only if not specifically explained indirectly above – with the answers to question 3 and 4)

[Hier eingeben]

9. Could you give an **example** of using some of your **informal relationships** for **international opportunity recognition** during the pandemic? (Only if not specifically explained indirectly above – with the answers to question 3 and 4)
10. Can you offer some **examples** of using **formal relationships** for your **international opportunity recognition** during the pandemic? (Only if not specifically explained indirectly above – with the answers to question 3 and 4)
11. What do you understand by the term **„trust“**? How was your **„trust“** with your **networks influenced during the pandemic**? Can you give some examples?
 - a. How did you collaborate with your **partners** during the pandemic? Were there some experiences that might have influenced **your trust in your partners**? Can you give an example?
 - b. What would you define as **local networks**? Can you give some **examples**?
 - c. What was the **role of your local networks** during the COVID-19 pandemic? What about your **trust in your local networks during the pandemic** – how would you describe that?

Penultimate question

12. Could you give an example of one **decision-making process for internationalization** your start-up went through during the COVID-19 pandemic? Does it **differ** from the **processes before the pandemic**? How?

Last question (indirect one)

13. How would you evaluate the **internationalization opportunities for Austrian start-ups during the COVID-19 pandemic**?

Additional questions which might be used, but do not have to be (dependent on the situation and on the answers given by the respondents):

- Imagine there was no COVID-19 pandemic at all. (*Hypothetical question*)
 - How would your international opportunity recognition look like?
 - What about the internationalization of your start-up – what would it be like?
- You mentioned your family as an important informal network during the pandemic. (*Behaviour question*)
 - What advice did your family¹ give you?
 - Did you talk to them about international business opportunities – what did they tell you?
- What would an ideal network for international opportunity recognition look like? (*Posing the ideal*)
- Why do you think that the influence of your family² on your business increased³ during the pandemic? (*Other people's motives*)

¹ Same for: past business partners and friends. Dependent on the answers previously given regarding most influential informal networks.

² Same for: past business partners and friends. Dependent on the answers previously given regarding most influential informal networks.

³ „increased“ or „changed“ – only if mentioned before by the interviewee that an increase/change has occurred.

Second-order themes and first-order categories	Representative Quotations
<ul style="list-style-type: none"> • Dimension: Formal, informal and local networks <p>A. The more private things are shared, the more informal a relationship gets.</p> <ul style="list-style-type: none"> • <i>Every first contact is a formal network.</i> • <i>In an informal network one already knows the people one is interacting with.</i> • <i>There are external and internal informal networks.</i> 	<p>Entrepreneur 1: <i>„Every first contact is a formal contact in my eyes. Because here it is business, you don't know the person so there is no trust, you need to live up to your role, to be professional and that's all like... living a role is more formal in my eyes. Hm, but it could also be private. If you are at a house party or let's say afterwork drinks – it might be an informal setting but it's a formal connection. At least the first minutes, and then it can turn – it's more likely with drinks to turn to an informal one, if there are some jokes, if there are some private stuff.“</i></p> <p>Entrepreneur 2: <i>„I think a formal one is, it would be one for me that comes from direct contact as a company where you never had a personal relation to the people from that company. And an informal one would be one where you can also... in a way know the people that you are connecting with personally in some kind of, in some way or form.“</i></p> <p>Entrepreneur 4: <i>„Let's say... some new opportunities for a network can start as formal and can become informal after some time..“</i></p> <p>Entrepreneur 12: <i>„Our employees were a very good network for us. Because it really strengthened our bond with each and every one.“</i></p>
<p>B. The smaller the company one is interacting with, the informal the relationship</p> <ul style="list-style-type: none"> • <i>Short-term projects lead to more informal relationships.</i> • <i>Long-term projects require more formal relationships.</i> 	<p>Entrepreneur 2: <i>„Also, I think the size of the relationship, ah the size of the company or community you're interacting with is playing into this because if you think about our first partnership, they were also another company, but also a small company with just few people. And we had a very friendly relationship right from the start and that changes a lot.“</i></p> <p>Entrepreneur 2: <i>„What I just noticed, is that I think a small business is a lot more informal than it will be when it grows...“</i></p>
<p>C. The way of interaction with people</p> <ul style="list-style-type: none"> • <i>Formal relationships are more structured than informal ones.</i> • <i>Formal networks are used for specific ideas and the core business activities, while informal ones are used for getting to new contacts with the help of others.</i> • <i>The more frequent a relationship, the more formal. Informal networks are not obligatory and do not have to be frequent.</i> 	<p>Entrepreneur 6: <i>„Obviously, there's, you know contracts, legal papers – (referring to the formal networks)... so basically like the more formal, and also the more concrete the things that you are working together on that, so that's an formal network for me.“</i></p> <p>Entrepreneur 6: <i>„To me it is a bit more of a sliding scale of that basically says the more you interact with them and every day and concretely, like basically the more frequent your interaction, the more frequent do you generate opportunities through this part of your network, the more it is a formal network.“</i></p>

	<p>Entrepreneur 9: „<i>The informal network is the classic afterwork, beer network and the formal network is the formal get-together maybe on a fare or a congress when you talk to each other on a very formal basis.</i>”</p> <p>Entrepreneur 13: „<i>Sometimes also people from my network – which I think it is super important to have one, are telling me: „Okay, I work together with this and this guy, so just mention that you know me and then you’ll probably get connected or something.” I try to get to a new point of internationalization in this way.</i>”</p>
<p>D. Informal networks are more important at the beginning, the former ones later.</p>	<p>Entrepreneur 3: „<i>The further it goes, the more important formal networks get. If you want to put a timeframe around it – it’s a ... I mean private networks are always super helpful, but especially in the beginning: setting the playground and setting your strategy – private networks are much more helpful than formal ones.</i>”</p> <p>Entrepreneur 12: „<i>An example: we were sitting in the company one day and a guy walked in and ... he was just driving by and stopped. And after... he was just curious because we had so much wood outside as we wanted to make toilets out of it. And after about 5 minutes talk he said: „I mill myself. And I have a small wood mill that is 20 km in this directions and I just started business.” And now he is delivering us with 30% of the supply. And this was such a situation. He stopped because he was curious. And it started quite informal because it was not really like: „Hi, hello this is representative of the company X.” He just said: „Hey, what’s the wood outside? Because I am just curious!’’.</i></p>
<p>E. Informal networks are used for seeking advice, help and support as well us for knowledge exchange.</p>	<p>Entrepreneur 8: „<i>Informal network for me as an entrepreneur is more a friendship, not only business partnership.</i>”</p> <p>Entrepreneur 11: „<i>Informal networks make it more cozy, they make it more protective than the formal network.</i>” EI: „<i>So, the startup community in Linz - we talk a lot, we, like, exchange about the current global topics and about startups and about all the stuff in this market segment. We help each other by exchanging, like, contacts of important people which you can get in touch with and so on. And that’s maybe, I would say, that’s the most important thing as an entrepreneur, as an innovative person. If you have an idea, you have to talk about this idea. Because only if you talk about it, you can develop it.</i>”</p>
	<p>Entrepreneur 5: „<i>For example, kind of like choosing the first city to expend to. There we talked a lot with our investors and we kind of like... they helped us to</i></p>

<p>F. Internationalization decision-making with advice from the informal networks</p>	<p><i>asses where do we have the best business case, where is the competition in these cities, so this was having an influence by the external advice.’’</i> Entrepreneur 9: <i>„ They definitely influenced my decisions. Just because I talked so much with them and with friends about decisions. Just as I told, you get together, after work beer and you talk about your current problems and your current problematic decisions. And they help you to get to a final result.’’</i></p>
<p>G. Formal and informal networks are interconnected. They influence and increase each other respectively.</p>	<p>Entrepreneur 6: <i>„I think one cannot do without the other. And I think they serve, they work together to create opportunities, in the best possible way....’’</i> Entrepreneur 11: <i>„Of course, you meet them and you have this network. In Cyprus you have this network, events, we sit there, we talk about stuff. We have agenda, we follow it and then it’s open! And from that moment it becomes informal. It transforms to this informal event, because you know each other.’’</i> Entrepreneur 12: <i>„I would say even the formal relationships start as informal relationships.’’</i></p>
<p>H. Family, friends and life partners influencing the psychological state of the entrepreneur</p> <ul style="list-style-type: none"> • <i>The biggest psychological support (or burden) during the pandemic</i> 	<p>Entrepreneur 1: <i>„So, my family is not really a business family. So, it’s more about the... just being in a good mood and having someone is the way they helped me the most with, I would say. And then there is like friends which came from university or startup events before COVID, which were more relevant like on the strategic side.’’</i> Entrepreneur 11: <i>„My girlfriend influenced me much in that way... very much in my own decisions. That’s why it is so important to have good people around you that kick your a* and confront with b*. And tell you that this is not good, maybe, and share your thoughts and their learnings with you! And maybe if you don’t have this then you do what somebody tells you to do.’’</i></p>
<p>I. Local networks</p> <ul style="list-style-type: none"> • <i>High trust in the local networks</i> • <i>Higher trust in the local networks than in the international ones</i> • <i>Local networks are mainly helpful for local but not for international opportunities</i> • <i>Local networks: start-up communities, friends, family, university networks of students, professors, and past colleagues.</i> 	<p>Entrepreneur 4: <i>„Very strong. Yeah, trust was not a big problem. Definitely not. Local networks are for sure friends and family. Work... hmm... yeah for sure if I meet somebody from work and it’s useful. If you see it geographically, everything, every contact I have in Austria is local. But yeah... for example our supplier in China or the distributor in Germany – I would not call them local. Hm... comparing the local network and for example the network in China: for sure there are trust issues! Because in China you never know! They can steal your product and just produce it somewhere else, and you can see it on the market: half the price!’’</i></p>

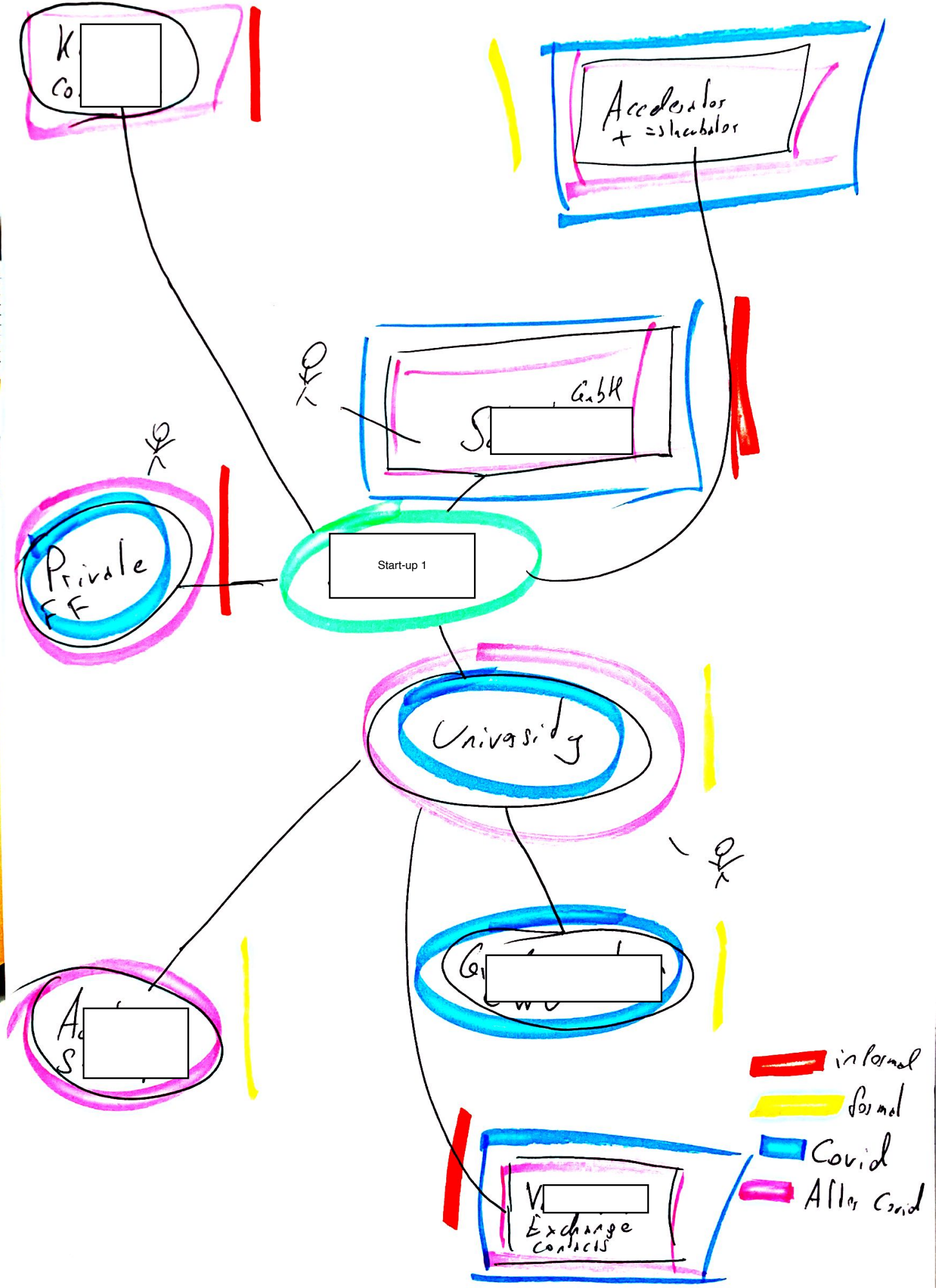
	<p>Entrepreneur 8: „As a startup the local networks are really important. There are lots of networking events that I can attend which are held by the local incubators or also accelerators that are in the city. So in Vienna you have a lots of incubators and they are hosting these events. And there are ... these events are really important to connect with other people who want to build up a business..”</p>
<p>Dimension: Opportunity creation</p>	
<p>J. Opportunities are created „by accident” by appearing unexpectedly for the entrepreneur</p> <ul style="list-style-type: none"> • <i>In informal settings when looking for advice or sharing experiences</i> • <i>When it comes to opportunity creation: formal settings are followed by informal ones</i> • <i>Opportunities are created by WOM of satisfied networks</i> • <i>Both networks are used for opportunity creation: formal settings are mainly used for regular business operations while informal for opportunity creation</i> 	<p>Entrepreneur 2: „That’s a very broad question. I think an opportunity is something that comes up without you especially searching for it. An unexpected thing you want to go after.”</p> <p>Entrepreneur 4: „It’s doesn’t work without connections.</p> <p>Entrepreneur 8: „So network is always important. It is not only important during a crisis like the Covid-19 crisis we had. Network is for a company a kind of... a catalyzer. It helps you to grow faster, it helps you to connect also with customers, business partners and so on and to form deeper business relationships. Hm. They are some kind of a door openers.”</p> <p>Entrepreneur 8: „I was with G* S* such a relationship (meant: informal), I think. Because we didn’t get any money, they didn’t get any money from us, but we helped each other out because we respected each other – we know that it was a hard time.”</p> <p>Entrepreneur 12: „We have a... an informal group where partners of our and ourselves are loosely connected like... they very much... they create fairs... So it’s not like a network itself, it’s more like individuals that are consulting themselves and kept talking. It was not only a one-way system. We were not only asking them... it was like for both. We talked: „Hey, we did this this way! How did you?”” And also we helped the other way when we had a solution for something.”</p> <p>Entrepreneur 13: „Opportunity is to speak at the right time with the right people.”</p>
<p>K. Informal networks could not be fruitfully used and easily increased during the COVID-19 pandemic</p> <ul style="list-style-type: none"> • <i>Informal settings were hindered due to the online working formats</i> • <i>Most of the settings during the COVID-19 pandemic were formal</i> • <i>Already very good established informal networks were helpful for opportunity creation during the pandemic.</i> 	<p>Entrepreneur 2: „During the COVID pandemic I think every connection was reduced.”</p> <p>Entrepreneur 4: „There were no opportunities at all because all the events were cancelled. And yeah... private networks helped a lot in that period of time. Otherwise it would have been impossible to do something.”</p>

	<p>Entrepreneur 4: „A good friend of him (meant: the father, him) is from the Netherlands and with him we got the connection to the new distributor in Germany.”</p> <p>Entrepreneur 4: „I would say nobody left. Because it was just... changing of not... specifically communication but it was not in person it was online. That’s the only thing that changed. And for sure... all the events. This personal contact and opportunities were gone during the pandemic. In general, I would say nothing changed. Now, after the pandemic, for sure it’s... new opportunities will come for just being present at fairs.”</p>
<p>L. Creation of opportunities due to COVID-19 pandemic</p> <ul style="list-style-type: none"> • Work remotely • No offices needed, less costs • Recognition of newly created consumer needs and adaptation of the business model • Digitalizing services 	<p>Entrepreneur 2: „So, we all worked from home, still do, and I don’t think that the situation has changed a lot for us since COVID is not a big topic anymore because we created our company with the mindset we don’t need an office because nobody will come anyway which was a big factor in reducing our cost.”</p> <p>Entrepreneur 5: „So, um, consulting people on the phone, communicating through a lot of different channels, not only email, but also WhatsApp... we have a chat had to adapt on how do you ... how do you consult and sell funerals remotely.”</p> <p>Entrepreneur 7: „So even if the main or the core business was going down, we tried to get alternative solutions. So, creating alternatives. , one example is that we tried to not only focus on people with car but also on people who ride the bike to work. So expand the user base. So, the concrete example is: find users that are not influenced by the crisis.”</p> <p>Expert: „From my perspective, the start-ups got different during COVID. We did not have less start-ups but the start-ups got different ideas.”</p>
<p>Dimension: COVID-19 pandemic and opportunity creation for internationalization</p>	
<p>M. Lack of networks due to the COVID-19 pandemic but the pandemic itself is not solely negatively perceived.</p> <ul style="list-style-type: none"> • There were more internationalization opportunities for firms offering online and software services as well as for firms in the food and beverage industry • The lack of network contact negatively influenced the internationalization. 	<p>Entrepreneur 2: , I believe it could be a little less international. I think we might have gone different routes and maybe we had a few more customers from Austria. But I don’t think we would have the customers we had from other countries, we have now. So, I think it would be less internationalized in this context.”</p> <p>Entrepreneur 4: „I am pretty sure that sales would be much better! Definitely. Because during the last three years – it was dead! Sales were very low because</p>

<ul style="list-style-type: none"> • <i>The COVID-pandemic is seen as an opportunity for some start-ups, to slowly grow and work on the internal structures instead of internationalizing and growing rapidly which would be the alternative without the pandemic.</i> 	<p><i>most of that stuff is sold on Nordic fairs. That kind of events – you have to be on such events to get to know, for example, yacht builders.’’</i></p> <p><i>Entrepreneur 6: „Yeah, I think we would be a whole less, lot less international. Probably significantly less, we would probably be in the Netherlands and in Austria and, probably more you know localized and probably localized more strongly.’’</i></p>
<p>N. The influence of the COVID-19 pandemic on the opportunity creation depends on the industry sector of the start-up and the business model</p>	<p><i>Entrepreneur 2: „Well, it depends on the kind of startup.’’</i></p> <p><i>Entrepreneur 7: „Hm, it fully different. It’s so much based on the core business they had: if the core business was affected by COVID.’’</i></p>
<p>O. Austria as a country does not offer opportunities (for Internationalization) for Austrian start-ups</p> <ul style="list-style-type: none"> • <i>Culture (Austrian mentality)</i> • <i>Regulations, high taxes (government)</i> • <i>Financial support</i> • <i>There is not an all-in center, where start-ups would get all the essential information (different centers for different purposes, locations)</i> • <i>Start-ups had to use the Internet or search by themselves for internationalization opportunities and international networks</i> • <i>COVID-19 was the reason for increased search for internationalization opportunities outside of Austria, which cannot be found through connections in Austria</i> 	<p><i>Entrepreneur 6: „And another thing that I found is cultural differences between countries. Where in the Netherlands for example people are much more, in my experience have trusted us much more quickly.’’</i></p> <p><i>Expert: „I think the information is here. But it is not easy to find it. Why do we have more than 9 different agencies or places in Austria to get funding? Or to get information?’’</i></p> <p><i>Expert: „It’s the Austrian mentality. Because before a few years I sat in a coffee and there was a meeting between an investor and a start-up and they talked for about half an hour and the investor said: „Handshake. Let’s do it!’’ This is not possible in Austria. You talk for weeks and months and then the opportunity has faded. And then you get no response from the people and you ask and then you get bored. Because it simply does not work. That’s Austria!’’</i></p> <p><i>Expert: „There is A* who helps companies to get to Austria. Just to get to Austria, but I think there is no institution who gets start-ups from Austria to different countries.’’</i></p>
<p>P. Start-up events – lack of networks relevant for internationalization</p> <ul style="list-style-type: none"> • <i>Very locally concentrated with regional focus of the networks</i> • <i>No connection between the events in the country</i> • <i>No international networks present on the events</i> • <i>Events mainly for medical and software start-ups</i> • <i>Start-up events as source of information flow and opportunities</i> • <i>Start-up network is not so strong in Vienna, as it is in Linz, Styria or Graz</i> 	<p><i>Entrepreneur 4: „Hm... I think I made it very clear. Most of the opportunities come from interaction with people! For sure, also creativity and ideas but what I learned is that – most of them come from people! ...Networking events: to meet new people, get new ideas, impressions.’’</i></p> <p><i>Entrepreneur 8: „I think there is a need to centralize them, to merge them. The problem is that there are so many small events and they are all in their way.’’</i></p> <p><i>Entrepreneur 9: „And all the way down to networking and so on, that’s not enough in Austria. We cannot compare to other countries in this area.’’</i></p> <p><i>Entrepreneur 10: „It would make absolute sense to connect those networks.’’</i></p>

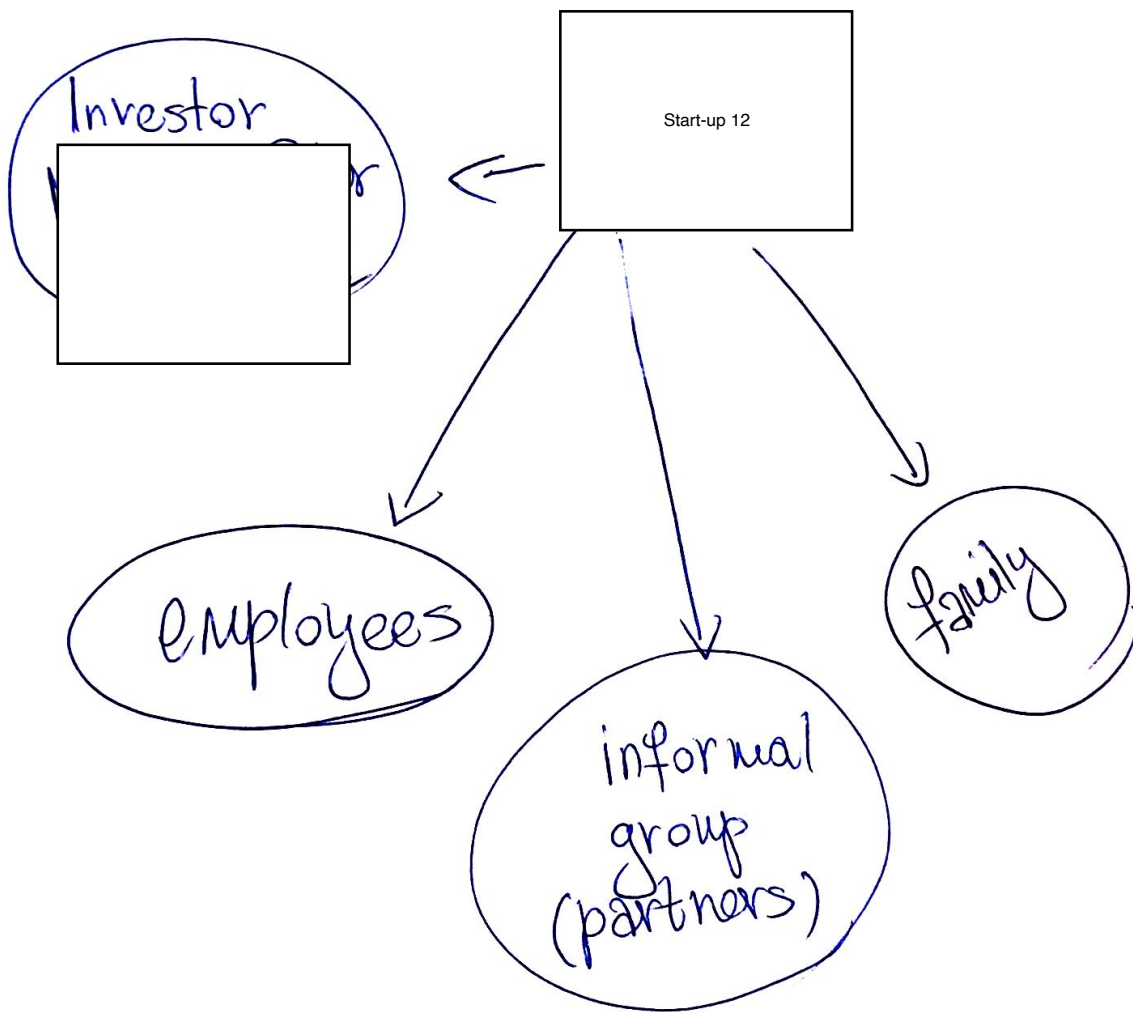
	Entrepreneur 10: „ <i>As I said, it's a very limited to the region in Austria, where you are... the networks are very limited which means that I don't have a contact to other internationalization networks outside of Styria...</i> ”
<i>Dimension: trust</i>	
<p>Q. Trust is not exclusively present in a network (formal or informal) but it is present in both forms of networks, as a trust in the specific person and not the kind of network</p> <ul style="list-style-type: none"> • <i>Trust means that people will do their work as promised also under uncertain situations</i> • <i>WOM is used for trust with informal networks</i> • <i>Formal contracts are used for trust with formal networks</i> • <i>COVID-19 pandemic did not change the amount of need for trust in the networks.</i> • <i>During the COVID-19 pandemic trust was gained in private networks and lost in governmental institutions</i> 	<p>Entrepreneur 4: „<i>Especially important was the trust in my father's private sailing network.</i>”</p> <p>Entrepreneur 9: „<i>“Trust” for me is when you can give somebody a task and you know he or she will do it without you checking if it is already done.</i>”</p> <p>Entrepreneur 10: „<i>Trust, um.. I would say, reliability in unwritten contracts, or in, in... yeah. I would say that, that's enough.</i>”</p> <p>Entrepreneur 13: „<i>Hm... trust is transparency and loyalty.</i>”</p> <p>Entrepreneur 14: „<i>Also mehr hätte ich jetzt nicht gesagt. Weniger hätte ich auch nicht gesagt. Dann heißt es wahrscheinlich, dass es gleich geblieben ist.</i> “</p>

Table 2: First-order categories of the four dimensions: Categorization of the interviewees answers.



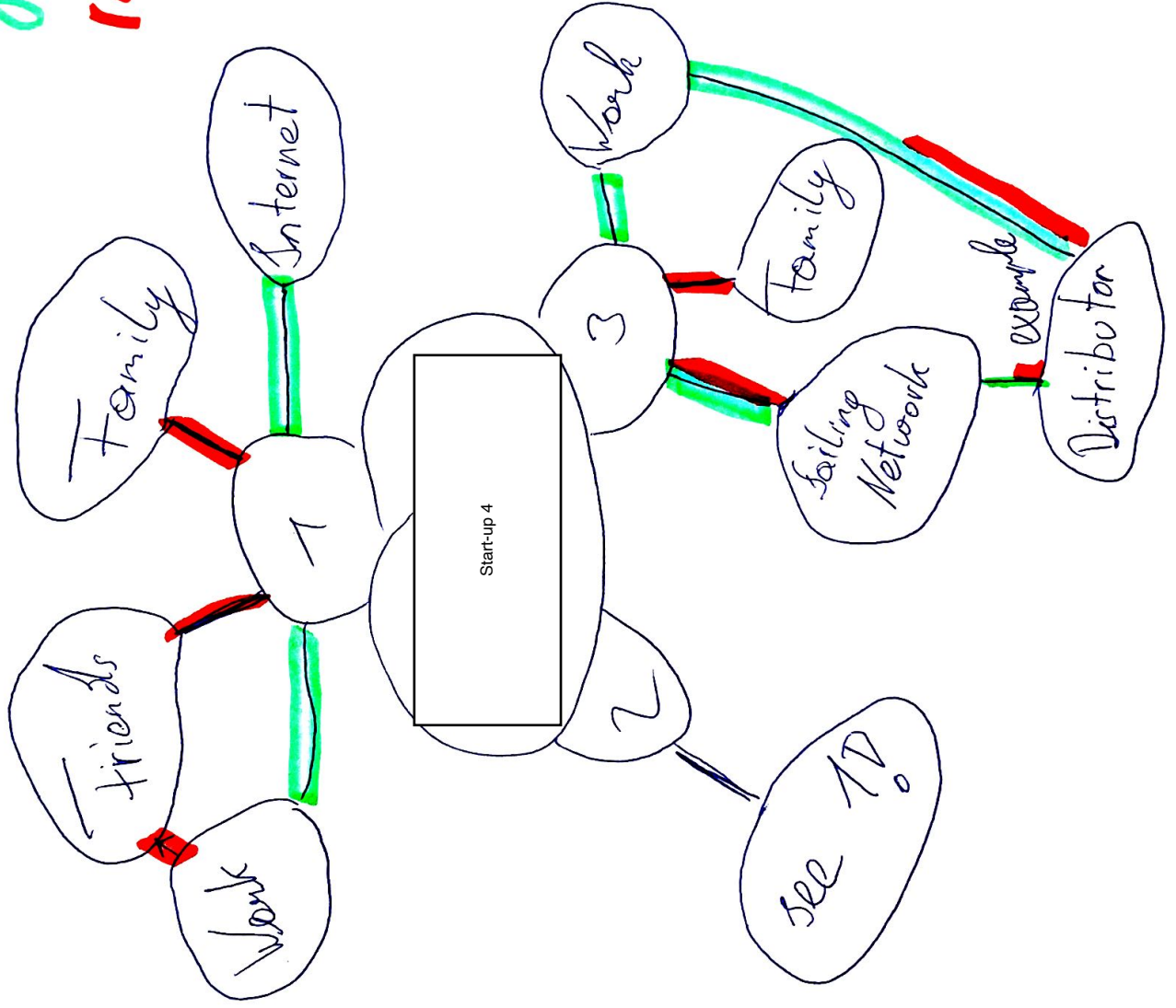
now → family is now not that important

Covid - 19



all informal, the informal ground → Investor
80% inf.
20% for.

green formal
red informal



informal
formal

during COVID

now

small projects to stay afloat

personal connections

long term partners / recurring projects (f/i)

long term projects / ongoing support (f/i)

previous coworkers

social media visibility

events

direct co-founders

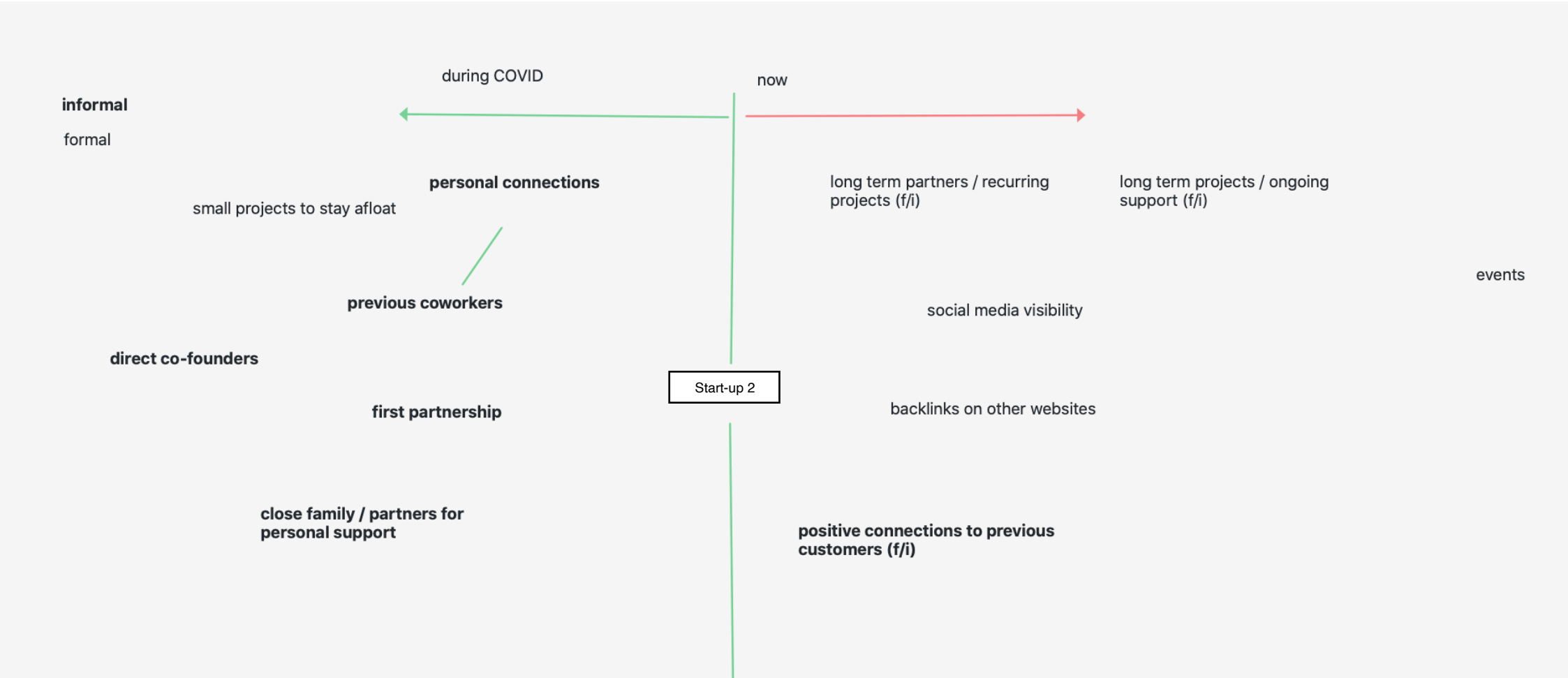
Start-up 2

first partnership

backlinks on other websites

close family / partners for personal support

positive connections to previous customers (f/i)



Start-up 3:

During & before covid:

W* – A* in Munich & Berlin

→ very important, because they connected us to legal support, we met in person, gave us other relevant contacts with regards to sales

Entrepreneur Group based in Vienna “Whatsapp group and a online board organized by “H*”

- community kitchen

→ getting access to relevant people / other startups / production partners

→ general exchange of ideas

Private networks / LinkedIn - individuals

→ exchanging ideas, meet in person

W* Wien

→ funded us partly; challenged our ideas

Advisory board

→ they are not focused on internationalisation but more broader view; they advise us

U* → student consulting company

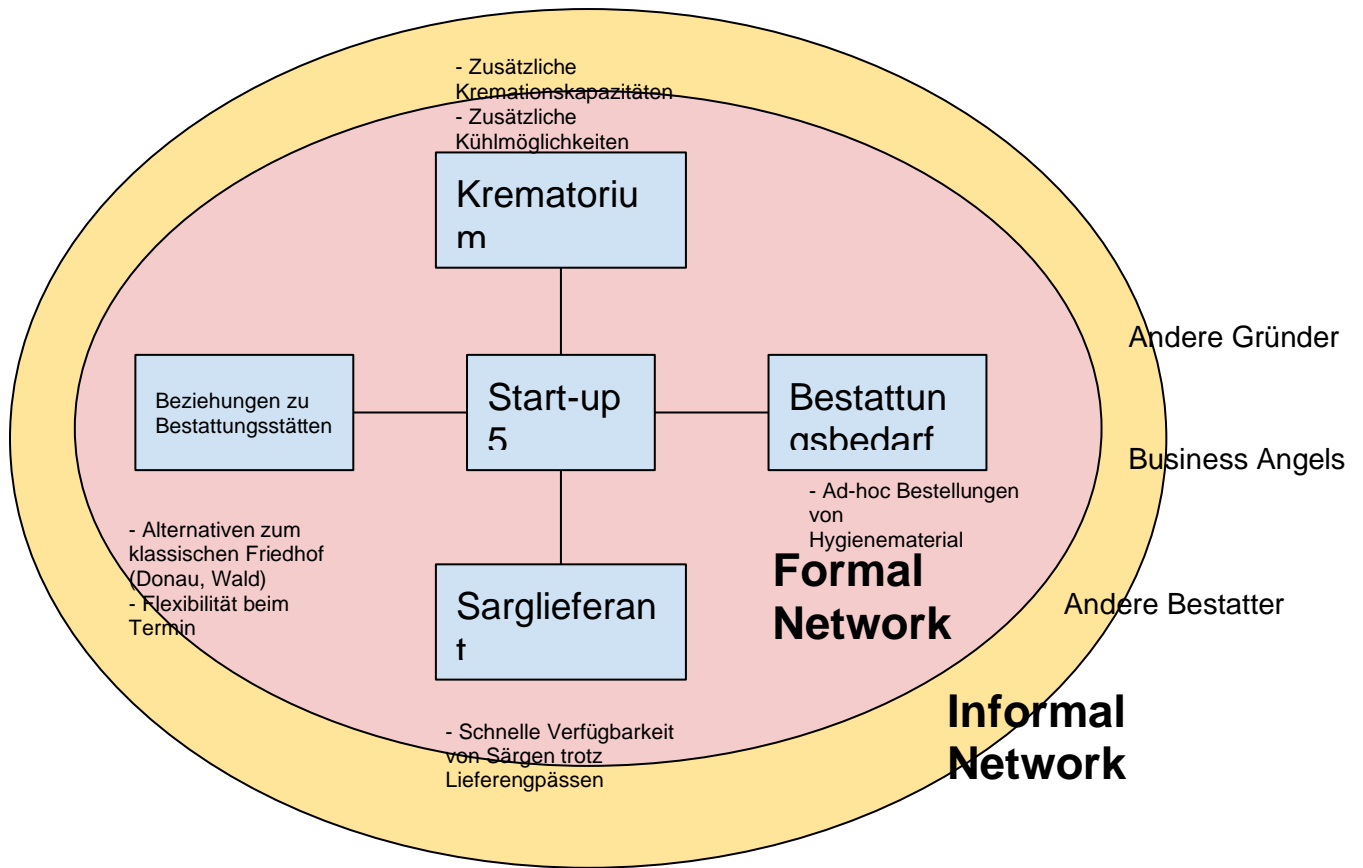
Start in Munich -> both

Start in Berlin -> both

Hamburg → only formal; working together with student consultancy; didn't do in the end

red - formal

green - informal



Start-up 6:

blue - informal

blank - formal

Technical Collaboration/Expertise

- *Pre-pandemic:*
 - V* - assistance in manufacturing/design expertise through their high performance metals division
 - F* - expertise on additive manufacturing
- *Pandemic:*
 - TU Delft - academic reviewers
- *Post-pandemic:*
 - TU Delft - academic reviewers
 - TU Delft - joint academic work through theses

Technical Resources (testing, manufacturing, etc)

- *Pre-pandemic*
 - O* (austrian space forum) collaboration on testing
 - V*: manufacturing
 - F*: manufacturing
- *Pandemic:*
 - O* (austrian space forum) collaboration on testing
 - voestalpine: manufacturing
 - F*: manufacturing
- *Post-pandemic:*
 - TU Delft - use of testing facilities, manufacturing facilities
 - TU Delft - collaboration on testing
 - N* A* - potential collaboration on testing

Members Recruiting

- *Pre-pandemic:*
 - TU Delft, TU Wien, students at various universities
- *Pandemic:*
 - TU Delft, TU Wien, students at various universities
- *Post-pandemic:*
 - TU Delft, TU Wien, students at various universities

Funding/Business Opportunities

- *Pre-pandemic:*
 - Various startup incubators/networks/pitch events like B*
 - V*: funding
- *Pandemic:*
 - Various startup incubators/networks/pitch events like B*
 - E* B*
 - E* M*
 - E* D* and D* P*, Director of H*
 - B* für K* and other government agencies

- F* and other research funding agencies
- *Post-pandemic:*
 - Various startup incubators/networks/pitch events like B
 - E* B*
 - E* M*
 - E* D and David P*, Director of H*
 - B* für K* and other government agencies
 - F* and other research funding agencies

Outreach

- *Pre-pandemic:*
 - School where project originated from
 - Network to some publishers and TV channels
 - T* M* Wien
- *Pandemic:*
 - Network to journalists and media channels
- *Post-pandemic:*
 - B* für K* and other government agencies
 - TU Delft incubators
 - Industry association
 - School where project originated from
 - Network to some publishers and TV channels
 - T* M* Wien

Facilities

- *Pre-pandemic*
 - V*: access to technical facilities in Vienna
 - Quire, other online tools: preferential deals
- *Pandemic:*
 - V*: access to technical facilities in Vienna
 - TU Delft A*: facilities
 - Quire, other online tools: preferential deals
- *Post-pandemic:*
 - Vo*: access to technical facilities in Vienna
 - TU Delft A*: facilities
 - Quire, other online tools: preferential deals

Start-up 7:

VC network Berlin

- connection to people with influence

Shareholders at the company

- creating alternatives - find users that are not influenced by covid

mentors

- providing different perspectives

founder colleagues

- grants
- governmental funding

blue - informal networks

red/pink - formal networks

Start-up 8:

Before and during the pandemic:

- S* S*
- G*
- S*
- L* (Slovenia)
- M* C* Innsbruck
- T*
- A* College Sports League

During the pandemic:

- St* (founded)

- all of the networks are informal

Start-up 9:

- Startup Community Linz

- J* W* Oberösterreich

- Network of Startup* by S* OÖ

- F* A* GmbH

- B* A*

green - informal - also local networks

white - formal and business networks

Start-up 10:

Most Important networks during the COV19 pandemic

- S* P* Graz
- I* (down)
- N* G* (down)
- I* : <https://www.ic-steiermark.at> (up)
- Partner company in Ukraine (up)
- F* (ffg.at)
- Investor network
- Mentor network from S* (CTOs and CEOs of other companies) (up)
- Personal Network (build from LinkedIn and networking events) (up)

formal

informal

Start-up 11:

During:

- J* G* (S* U*), first person that brought me “out of the system”
- S* & S* G*, worked with Jay
- P* E*, Mentor, inspirational talks, exchange of thoughts
- A* K*
- D* K*, Vertriebsprofi Nr.1 in Europa

After:

- S* G* (H* Consulting)
- P* E*, still Mentor
- Whatsapp and Telegram groups around Cyprus
- S* N*, finacé
- A* K*

Jay - 70% formal, 30% informal
the rest - they are all both

Start-up 13:

Covid-19 and now:

I*

W*

Facebook

LinkedIn

Awards - different ones

Special Events - f.i. airport

Freunde und Familie

Before: (probably because new on the market)

Awards - different ones

Facebook

LinkedIn

red = formal

yellow = informal

Start-up 14:

W* + Workshops

J* W* OÖ und AT

Tabakfabrik

Studienfreunde

Startup OÖ

Startup AT

Unternehmerstammtische

C* R* + Workshops

alle Netzwerke - informell

Start-up 15:

G* E* Grant

E* S*

F* for G*

E*

W* Partnership Program

Mentors

formal networks