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ENTREPRENEURIAL DECISIONS AND FINANCING IN THE EARLY STAGES: A MULTIPLE CASE STUDY OF MOUNTAIN BIKING FIRMS

Examiners: Associate Professor Lasse Torkkeli
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ABSTRACT

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This work is a multiple case study of firms in mountain biking market that is intended to describe how entrepreneurial decision-making in the early stages affect choices of financial resources. The motivation for choice of topic originated from real-life case: a mountain biking firm in seed stage that strives to commercialize.

The main research objective of this work is to learn how entrepreneurial decisions in the early stages affect choices of and success of getting financial resources. The main research question of this work is “how entrepreneurial decision-making in different stages of lifecycle influences on choices regarding financial resources”. Additional objectives include learning about changing needs for resources and decision-making modes across stages. This work uses multiple case design.

Data was gathered from six companies, including the principal case via semi-structured interviews. The results have shown that entrepreneurs see resources as rather tools, while earliest stages place more importance to them. The role of resources is strongest at the transition between stages. Regarding decision-making and stages, not all entrepreneurs see their role change. Some presence of causation is visible in the growth stage, though effectuation was seen everywhere. Both negative and positive effects of success and choices of financing were discovered in this work.

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This has been a long and challenging journey which is now reaching its final point. My choice of topic was motivated by a real-life complicated case in an under-explored market. Going into new areas had never been easy…On the other hand, why would anyone choose an easy way? After all, LUT's motto is "Show the way. Never follow".

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LIST OF ABBREVIATIONS

BA = Business Angel

EU= European Union

EEA= European Economic Area

IB = International Business

IE = International Entrepreneurship

OECD = Organisation for Economic Co-operation and Development

MTB = Mountain biking

RBT (RBV) = Resource-based theory (Resource-based view)

SMEs = Small and Medium sized Enterprises

VC= Venture Capital(ist)

1 INTRODUCTION

This work is a multiple case study that centers around an entrepreneurial firm in the nascent stage that intends to progress and eventually commercialize. In its traditional sense, entrepreneurship means the creation of new businesses and their development. Managers of small, family-owned businesses or start-up companies are often referred to as entrepreneurs. (Westhead, Wright and McElwee, 2011). However, limiting definition of entrepreneur as only a person who creates an organization can be problematic, according to Shane and Venkataraman (2000). They state that entrepreneurship is a combination of both opportunities and enterprising individuals. Omitting the component of opportunities leads to incomplete definition. It is worth mentioning that entrepreneurship does not always lead to the creation of new organizations, but can occur within an existing company. (Shane and Venkataraman, 2000). Zahra and George (2002) focus on opportunity recognition, discovery and exploitation in their definition of entrepreneurship. The definition of entrepreneurship in this work is a combination of the two aforementioned ones: entrepreneurship is an organizational phenomenon of opportunity recognition, discovery, and exploitation through innovation and risk-taking that might lead to the creation of a new venture (Zahra and George, 2002; Shane and Venkataraman, 2000).

Studying entrepreneurship is very important because entrepreneurs contribute a lot to countries' economies. According to OECD (2017), entrepreneur-run small and medium-sized enterprises (SMEs) generate 70% of jobs and 60% of overall economic value. Entrepreneurs generate innovative ideas, enhance efficient use of resources, broaden economic activity and can even disrupt the “rules of the game” in the markets (Zahra and George, 2002; Westhead et al., 2011). However, establishing own business involves a lot of risk and entrepreneurs have to be very proactive. They have to make a lot of sacrifices to pursue opportunities that do not always offer returns. Besides personal sacrifices such as leaving full time job and dedicating all time and energy on the venture, entrepreneurs have to deal with lack of capital. Capital originally means all the resources, but is frequently used solely for finances. (Shane, 2016; Alton, 2016; Robertson, 2018; Gordon, 2017; Nalamolu, 2017). Every operation requires investment; thus a lot of young firms close or sell their business when they run out of capital. (Churchill and Lewis, 1983). Obtaining financing is especially hard at the early stages of the firm because funding providers, such as banks and venture capital, put forward a lot of requirements for a young firm and expect a fast payoff (McAdam and McAdam, 2008). The problem aggravates by the fact that entrepreneurs follow different decision-making patterns regarding business opportunities than managers of corporations (Alvarez and Busenitz, 2001).

1.1 Research questions

The aim of this research is to describe how entrepreneurial decision-making in early stages affect obtaining strategic financial resources based on case studies of firms. Financing plays instrumental role here: moving from seed stage to commercialization requires large investments directed to product development and testing. Obtaining financing depends not only on the options available on the market but also on the decisions of entrepreneurs themselves. Thus, the main research question of the work is (RQ1):

RQ1. How entrepreneurial decision-making in different stages of lifecycle influences on choices regarding financial resources?

Not only do entrepreneurs follow distinct decision-making patterns, their needs for resources change at different stages of their lifecycle (Berger and Udell, 1998; cited in Mac an Bhaird, 2010). This is followed by sub-question *(RQ.1.1*):

RQ1.1 How resource demands for development differ as the firm advances in its lifecycle?

Not only do resource demands differ, but the stages of development require different levels of involvement from entrepreneurs. (Churchill and Lewis, 1983). According to McAdam and McAdam (2008) entrepreneur’s role changes, and so do responsibilities and tasks. The cognition of entrepreneurs can change, but little is known about how decision-making differs across stages.

RQ1.2 How decision-making modes change as firm progresses from seed stage onwards?

Every research question is built around research objective. Those objectives and theories that can help to achieve them are outlined in Table 1. The idea is based on proposition of Saunders, Lewis and Thornhill (2009) to align research questions and research objectives. Entrepreneurial decision making is in the focus of effectuation theory, whereas resource-based view shows importance of different resources. Theories solely may not lead to answering questions, but can serve as a platform for empirical data. Table 1 shows which theories can shed light to given research questions.

Research question	Research objectives	Theories
RQ1. How entrepreneurial decision-making in different stages of lifecycle influences on choices regarding financial resources?	Learn about know how entrepreneurs make their decisions Learn about what is the role of the decisions of the entrepreneurs on how and whether they get financial resources	Effectuation Theory, Entrepreneurial Financing
RQ1.1 How resource demands for development differ as the firm advances in its lifecycle?	Learn about the change of resource demands from seed stage onwards	Firm Lifecycle theories, Resource-based theory (RBT)
RQ1.2 How decision-making modes change as firm progresses from seed stage onwards?	Learn what are the changes in entrepreneurs' decision making modes starting from seed stage onwards	Effectuation Theory, Firm Lifecycle theories

Table 1. Research questions, objectives and related theories. Adapted from Saunders et al. (2009)

1.2 Theoretical framework

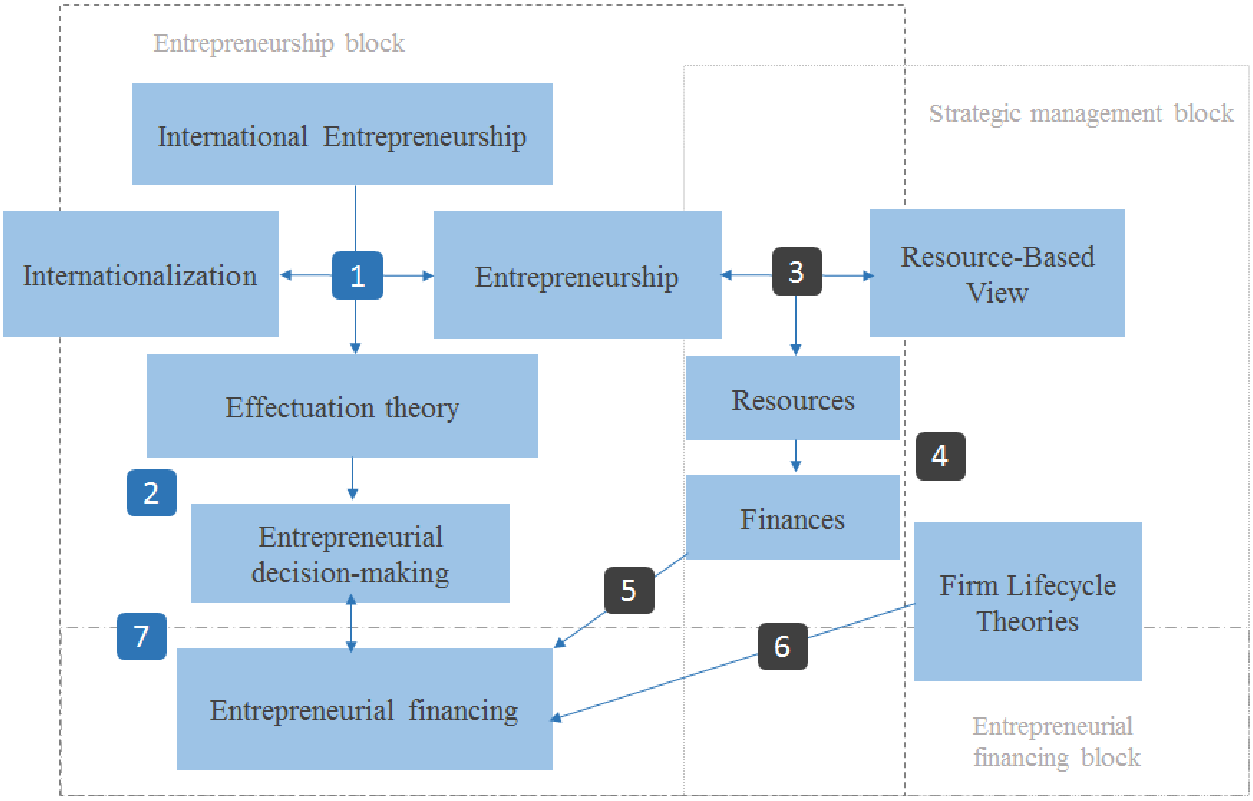

Figure 1.Theoretical framework

This work uses a wide range of theories that belong to three main theoretical blocks: Entrepreneurship, Strategic Management, and Entrepreneurial Financing. Entrepreneurship is a phenomenon at hand. Entrepreneurial decision making is one of the main concerns of this work and is the competence of Effectuation theory (2), which originated from International Entrepreneurship and Internationalization (1). Notably, in the Figure 1 Internationalization is going beyond the block of entrepreneurship. The reason for that is that internationalization occurs in both corporations and entrepreneurial firms. This is beyond the scope of this thesis (see chapter "Delimitations").

Strategic management block intersects with Entrepreneurship and is home for Resource-based view and Firm Lifecycle Theories. Resource-based view concerns the topic of the role of resources in the competitive advantage for an entrepreneurial firm. Notably, RBV slightly intersects with Entrepreneurship (3) in the topic of resources: they are an important factor in both theoretical fields. Yet, the focus is placed on financial resources ("Finances", node 4). Entrepreneurial Financing (5) covers everything related to financial resources. Firm lifecycle theories also originate from Strategic Management and help to outline challenges for firms at different stages of their development. Those theories are related to Entrepreneurial Financing from the view of the availability of financial resources at different stages of a lifecycle. This is why the theoretical block of Firm Lifecycle Theories slightly intersects with entrepreneurial financing. Relation between entrepreneurial decision-making and entrepreneurial financing is an under-researched topic (7).

1.3 Key definitions and concepts

Entrepreneurship is an organizational phenomenon of opportunity recognition, discovery and exploitation through innovation and risk taking that might lead to creation of new venture. (Zahra and George, 2002; Shane and Venkataraman, 2000).

International entrepreneurship (IE), according to Zahra and George (2002:11) involves "creatively discovering and exploiting opportunities that lie outside a firm's domestic markets in the pursuit of competitive advantage". Notably, international entrepreneurship is very briefly covered in this work (see "Delimitations")

Entrepreneurial decision making, in this work, is a cycle of assembling resources and constraining goals. This is a combination of cognitive aspects (opportunity recognition and goal-setting) and behavioural (for example, searching for partners and using resources). This aspect is covered by Sarasvathy, Kumar, York and Bhagavatula (2014).

Commercialization is the process of introducing a new product or service to general market, passing through stages of introduction, mass production and adoption. This process involves production, distribution, marketing, sales and customer support required to achieve commercial success. (University of Pittsburgh Innovation Institute, 2020)

This research concerns mountain biking market which is an extreme sport. *Extreme sports* (also: action or alternative sports), according to definition in Encyclopædia Britannica, refer to sporting activities with high speeds and high risk. Those operate outside of mainstream sports and are characterized by adrenaline rush. Besides mountain biking, extreme sports include skateboarding, snowboarding, freestyle skiing, BMX and stretch to even rock climbing and skydiving. (Tikkanen, 2019)

The original meaning of *investor* is an entity (individual, company, organization) that invests capital with the aim of making a profit, minimizing the risk and maximizing return (*Market Business News*, 2020). Following the logic of a definition, an investor can be any capital provider, from non-professional users in crowdfunding campaigns to banks and equity finance providers.

Resource-based view (RBV) or resource-based theory is a theory from strategic management, developed through works of Wernerfelt (1984), Lippman and Rumelt's (1982) and Barney (1986), based on a notion that firms reach sustained competitive advantage (SCA) through possession of strategic resources with VRIO characteristics: valuable (V), rare (R), imperfectly imitable (I) and exploited by organization (O). (Kozlenkova, Samaha and Palmatier, 2014)

Sustained competitive advantage (SCA) is the central topic of resource-based view, a situation when cannot overrun a focal firm by just duplicating the strategy and that situation stays over time. (Kozlenkova et al., 2014)

Resources are essential in this work. The original definition of resources is rather ambiguous, including everything, from tangible resources to capabilities. This work focuses purely on financial resources, for the reasons explained in chapter "Delimitations". (Kozlenkova et al., 2014)

1.4 Delimitations

This work is focusing, on entrepreneurship, specifically from two different perspectives such as effectuation and resource-based view. Effectuation helps to explain entrepreneurial cognition and decision making patterns, whereas the resource-based view gives an insight on the importance of the resources. Firm lifecycle theories tell about the challenges each firm faces on different stages of their cycle, whereas entrepreneurial financing describes financing options in the market and in which stage they are more applicable.

Although International Entrepreneurship and Internationalization appear in the Theoretical framework, they are not covered in this thesis. The only reason why they appear in the framework is that they have led to the formation of effectuation theory, one of the main theories in this work. There is very little internationalization occurring among case companies, and some cases are purely domestic.

The resource-based view and effectuation theory are very relevant to current research problem. Firm's resources have gotten a lot of attention among strategic and entrepreneurship scholars (Zahra and George, 2002). In addition, Sarasvathy's et al. (2014) article on effectuation theory shows that entrepreneurs utilize resources in order to create and pursue new opportunities. Although the lack of resources has been cited as an acute problem for case companies, in this work resources are limited to only finances. The reason for it is that the original definition of resources was very ambiguous. Finances are some of the few types of resources that are easily measurable. Lack of finances has been cited by multiple sources as a crucial problem, including Churchill and Lewis (1983) and McAdam and McAdam (2008). Lifecycle theories give insight on challenges at different stages of firm development, though the main focus is placed on seed and startup stages. The growth stage is covered as well, though later stages, such as maturity and decline are not covered at all.

2 EFFECTUATION THEORY

One of the key concerns of this work is entrepreneurial decision-making because entrepreneurs make decisions towards opportunities differently than do managers of corporations (Alvarez and Busenitz, 2001). This topic had coverage in entrepreneurship literature, but got the most attention in effectuation theory by Sarasvathy (2001; cited in Jones, Coviello, and Tang, 2011).

The key topic of effectuation theory is opportunity recognition. It emerged as a prominent research topic in the field of International Entrepreneurship (IE). IE is a young academic field located at the at the nexus of internationalization and entrepreneurship, with close theoretical links to international business (IB) research. The field needed organization and review of subject matter. Jones, Coviello and Tang (2011) have reviewed 323 articles in the field. In their review three types of research emerged, out of which opportunity recognition, a problem-solving process of matching pre-existing means (resources, skills) and new ends (international markets), has become a prominent topic. (Zahra and George, 2002; Jones et al., 2011).

Effectuation theory concerns opportunity recognition, a previously under-researched topic in IE field. It describes how entrepreneurs utilize resources within their control taking into account various constraints to create new ventures, products, opportunities, and markets. Sarasvathy et al. (2014) state that effectuation is a dynamic process where the cycles acquiring means (increasing a firm's resource base) and constraining goals interchange. It is a logic of non-predictive control: the entrepreneurs set goals based on resources available. (Sarasvathy et al., 2014; Jones et al., 2011).

The effectuation process follows five core principles: *bird-in-hand*; *affordable loss*; *crazy quilt; lemonade* and *pilot-in-the-plane* (Sarasvathy et al., 2014). *Bird-in hand*, or means-based approach, focuses on identity (who I am), knowledge (what I know), and networks (whom I know). The focus is placed rather on individual capacities (what I can do) rather than on norms (what I should do). Some researchers, such as Read et al. (2009; cited in Sarasvathy et al., 2014), state that bird-in –hand approach allows entrepreneurs to exploit or expand their resources, thus improving venture performance and diminishing the effect of uncertainty. (Sarasvathy et al., 2014).

Affordable Loss principle focuses on the entrepreneur's risk-taking capacities, asking the main question "what I can lose". Focus on what is not so critical to lose is the key distinction between the causal approach which concentrates on possible gains. Sometimes this question means if an entrepreneur should start a business in the first place. Crazy Quilt is related to the Affordable Loss approach. Entrepreneurs focus on what they can afford to lose; they engage in partnerships to expand resources. Entrepreneurs focus on partnerships often expecting that those partners can commit to a venture and share risks as well as benefits of the venture. (Sarasvathy et al., 2014)

Lemonade approach treats unexpected circumstances as opportunities. Instead of strictly following the plan and avoiding any deviations from it, lemonade approach allows significant deviations or even abandoning the plan altogether. This approach is especially effective for R&D in highly innovative turbulent environments. *Pilot-in-the-Plane* approach goes beyond an opportunistic attitude towards surprises: the approach implies that the entrepreneur's actions are more important for shaping the outcome than trends. Overall, entrepreneurs are seen as "co-piloting" the history rather than seeing it running on autopilot. (Sarasvathy et al., 2014).

Effectuation has been contrasted by Sarasvathy (2001; cited in Sarasvathy et al., 2014) with causation, or "predictive" logic. Maine, Soh and Dos Santos (2014) in their study of three science-based entrepreneurs in the field of biotechnology discuss effectuation and causation "as two opposing decision making modes leading to opportunity creation and recognition". They state that though effectuation is linked to opportunity creation and causation is to opportunity recognition, such simplistic classification offers little explanation in highly uncertain contexts.

Approach to means and goals is one major factor that distinguishes effectuation and causation approaches. While effectuation puts emphasis on available means which can lead to a certain outcome (goal), causation focuses on a desired goal and assembles resources to achieve it. Sarasvathy et al. (2014) considers effectuation the logic of non-predictive control, which focuses on experimentation and affordable loss, using opportunities and means at immediate disposal. Often the final goals may not be even known in the very beginning. In contrast, causation, according to Sarasvathy (2001; cited in Maine et al., 2014) involves a lot of prediction of future and pre-determining goals. In effectuation, entrepreneurs learn through emergent contingencies. Contrary to that, causal decision-making involves a profound information search. The decisions of entrepreneurs are made based on pre-existing knowledge. Causation is frequently used in situations where uncertainty level is relatively low but impacts of failure are fatal. Effectuation logic, on the other hand, is used in highly uncertain environments, where, simultaneously, there is room for experimentation. (Maine et al., 2014). Effectuation has raised a lot of academic interest, especially regarding the topic of new venture formation because the earlier study of Sarasvathy (2001; cited in Sarasvathy et al., 2014) showed that entrepreneurs had followed effectuation logic with all its principles more frequently than the causation logic. Pilot-in-the-plane approach was most frequently cited: entrepreneurs do not focus on forces out of their control, they rather focus on what they are able to change. (Sarasvathy et al., 2014).

The Table 2 below summarises the difference between two decision making modes. Knowledge about those decision making modes can help to answer research questions, whether entrepreneurial decision making changes with firm's progression and how.

Effectuation	**Causation**
Means determine the goal	Goal determines the means
Non-predictive control, focuses on experimentation and affordable loss	Prediction and pre-determined goals are core elements
Relies on emergent learning	Relies on pre-existing knowledge
Highly uncertain environment, low impact of failure	Low uncertainty, high impact of failure

Table 2. Comparison of effectuation and causation logic

In sum, effectuation is an alternative paradigm to causation. Yet, more commonly entrepreneurs leverage the resources they have rather than decide on what happens next and what they should do. Notably, both IE and effectuation researches cover the topic of assembling and utilizing resources (Sarasvathy et al., 2014). The resource-based view concerns the topic of utilizing resources even more profoundly in the next chapter.

3 RESOURCE-BASED THEORY

Resource-based view has its roots in strategic management and industrial economics (Foss, 2011). Penrose (1959) was the first scholar who recognized the importance of the firm's resources and capabilities. The essence of the theory is in viewing internal resources as determinants of a firm's success and competitive advantage. RBV has developed into full-fledged, resource-based theory (RBT) with works of Wernerfelt (1984), Lippman and Rumelt's (1982) and Barney (1986). The theory has become one of the most influential and cited theories in the managerial domain (Kozlenkova, Samaha and Palmatier, 2014; Kraaijenbrink, Spender and Groen, 2010).

The resource-based theory(RBT) is a theory of competitive advantage (CA), which is a situation when a firm performs better than the marginal competitor in the market (Peteraf and Barney (2003; cited in Kozlenkova et al., 2014). Sustained competitive advantage (SCA) describes a situation when one cannot overrun a focal firm by just duplicating the strategy. SCA, as the name suggests, stays over time. (Kozlenkova et al., 2014).

Possession of strategic resources is the key to SCA, according to RBT. Resources are a very broad concept. They refer to all tangible and intangible assets that firms use to implement their strategies. In other words, resources act as tools that a firm possesses and uses to accomplish its goals. Typically, resources are classified into physical (e.g. plant, premises, land), financial (cash, starting capital), human (qualified personnel) and organizational (processes, strategies). Capabilities and dynamic capabilities are intangible and non-transferable resources, helping a firm to use its resources more efficiently. Resource-based theory has two underlying assumptions. Heterogeneity assumption asserts that firms have different bundles of resources even being in the same industry, thus they perform differently. Resource immobility assumption is based on a notion that resources are difficult to transfer from one firm to another. (Kozlenkova et al., 2014).

Not all resources lead to SCA: they have to be *valuable (V), rare (R), imperfectly imitable (I),* and exploitable by the firm's *organization (O)* at the same time. (Barney and Hesterly, 2012; in Kozlenkova et al., 2014). *Valuable* resources provide economic value to a company, and help to exploit external opportunity (or to neutralize an external threat). If, besides being valuable, resources are *rare* (possessed by very few firms in the industry), then it is harder for competitors to copy them. Nevertheless, the firm has only some temporary competitive advantage. The firm can potentially achieve SCA if resources are also *imperfectly imitable,* usually too complex, too contextual or too costly to imitate. Yet, all the three properties do not guarantee SCA, if they are not exploited by *the organization.* (Kozlenkova et al., 2014). Organizations can become more proficient at picking strategic resources, especially those undervalued by the market (Foss, 2011).

3.1 Criticism of resource-based theory

Seemingly appealing and easily communicated, resource-based theory has a lot of limitations, addressed by Kraaijenbrink et al. (2010) and Kozlenkova et al. (2014). Those critiques are essential for the development of the body of research. One such critique, about *the static nature of theory*, has led to theoretical refinements: addition of organizational element ("O" in VRIO) and Teece's (1997) dynamic capabilities, the resources in high-velocity environments. (Kozlenkova et al., 2014).

Lack of managerial application of RBV is evident for two reasons. First of all, it tells managers about having VRIO/N resources but not how to obtain them. Secondly, it has a false conception of managerial ability to predict accurately the future value of a resource, though it does not always hold in reality. The criticism, however, was refuted: RBV has never been prescriptive, but rather explanatory, why some firms achieve SCA while others do not. (Kraaijenbrink et al., 2010).

Further criticisms complicate the situation. One of them is a *lack of significant empirical support on VRIO requirements* and their connection to firm performance was another significant critique (Kozlenkova et al., 2014). Arend and Lévesque's (2010) attempt to test the theory through simulation has failed: the relationships were not working consistently, only complicating the situation with theory instead of resolving it (Arend and Lévesque, 2010).

In addition, the theory's *applicability is very limited,* since it applies only to firms striving for SCA, not addressing those satisfied with their competitive position. Kraaijenbrink et al. (2010) state that the main use of theory is to protect resources from imitation and increase individual resource productivity. The criticism that RBV is *not a theory of a firm* was countered by Kraaijenbrink (2010) and Foss (2011) who stated that the theory has never attempted to explain why firms exist, but rather to explain SCA, why some firms perform better than others. (Kraaijenbrink, 2010; Foss, 2011).

Some critiques pose threat to RBT's validity. The criticism that *VRIN/O criteria do not explain SCA* manifested in the work of Arend and Lévesque (2010) where some VRIO resources did not lead to competitive advantage but some non-VRIO ones did (Arend and Lévesque, 2010). Despite the emphasis on organization, the RBV construct omits exploration, creation and exploitation of resources. Its only role is to be a managerial heuristic without any sufficient testing of specific implications. (Foss, 2011; Kraaijenbrink et al., 2010; Kozlenkova et al., 2014).

Tautology and *undetermined value* of resource are the two other significant criticisms. Tautology is expressed in the definition of a resource: a resource generates sustained strategic advantage only if it is able to generate a sustained strategic advantage (Barney, 2001; cited in Kozlenkova et al., 2014). This definition makes the theory empirically untestable. In other words, the value of a resource can only be determined post factum. (Foss, 2011). The theory is only limited on individual resources, failing to consider their bundles and interdependencies. (Kraaijenbrink et al., 2010). Resources in a bundle may affect each other negatively, thus devaluing the whole bundle (Kozlenkova et al., 2014). The neglect to cost of obtaining resources was common. As noted by Arend and Lévesque's (2010) VRIO resources were almost always costly to obtain, and not always paying off.

The *definition of resources* appeared to be *unworkable* due to its over inclusiveness: "all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm <…>" (Barney 1991 and 2002; cited in Kraaijenbrink et al., 2010:358). The resources are so diverse, that the value of tangible ones can be known immediately, whereas the value of capabilities can only be known ex post (Kraaijenbrink et al., 2010). As a result, the company can underinvest in strategic assets, and overinvest in non-strategic ones. (Arend and Lévesque, 2010). In addition, the locus of the theory has been inconsistent: it focuses internally on resources and capabilities of the firm, rather than external environment. Resource based view omits individual entrepreneurial characteristics, such as background and decision-making patterns, only limiting to characteristics of entrepreneurs and managers to solely “entrepreneurial alertness. (Kraaijenbrink et al., 2010).

3.2 Summary

Effectuation theory is related to entrepreneurship, though originates from IE field. RBV comes from strategic management. Yet, despite such distinct backgrounds, there are several theoretical links between them, starting from the fact that entrepreneurship was shown to be an intricate part of RBT. Links between entrepreneurship and RBV were examined by Alvarez and Busenitz (2001) and Foss (2011). Both are based on the assumption of heterogeneity. While entrepreneurship views heterogeneity in entrepreneurial cognition and perceptions of resource value, RBV’s heterogeneity is in resource bundles, that no firm has exact same bundle of resource. Resource as a unit of analysis is present on both fields, though RBT views it as a key factor to SCA, while the entrepreneurship tries to answer the questions of how entrepreneurial decisions manifest in firm’s resources and vice versa. (Alvarez and Busenitz, 2001; Foss, 2011). Interestingly, Alvarez and Busenitz (2001) include the cognitive ability of individual entrepreneurs in the boundaries of resource-based theory: entrepreneurs discover and exploit resources in distinct ways, generating heterogeneous outputs (Alvarez and Busenitz, 2001). Summary of commonalities can be found in the Table 2 below.

Theoretical link	**Entrepreneurship**	**RBV**
Heterogeneity	Entrepreneurs are different	Resources are different
Resource as unit of analysis	Entrepreneurs assemble resources	Condition of SCA
Entrepreneurial cognition	An integral part of entrepreneurship	A resource in itself

Table 3. Theoretical links between Entrepreneurship and RBV

Although RBV intersects with effectuation theory in focus on resources, the theory itself has multiple flaws, discussed in the chapter “Criticism of resource-based theory”. The theory is largely tautological, empirically untestable, ambiguous and omits important notions, such as individual entrepreneurial characteristics and opportunity recognition.

Although it does indeed emphasize resources’ role in firm’s strive for competitive advantage, the theory offers overly inclusive definition of resources. Definition includes all that firms use as assets to achieve strategic goals. Although RBV can only serve as managerial heuristic, it helps to shift focus of this work on financial resources. They appear to be the most relevant for the company and their value can be defined ex ante. Moreover, lack of financial resources is an acute challenge for small firms with scarce resources. Yet, firms are not static entities, their needs for resources differ at various points of their development. (McAdam and McAdam, 2008: 279). Insights on how small firms adapt to using resources at different momentum is in focus of lifecycle or stage development models.

4 FIRM LIFECYCLE THEORIES

Both effectuation theory and RBV emphasize heterogeneity in terms of resources and entrepreneurial cognition that lead to different outcomes. Indeed, firms differ a lot by business field, growth potential, size, organizational structures, and management styles. Nevertheless, according to Churchill and Lewis (1983) a range of businesses, irrespective of their field, experience common problems at similar stages of development. They all handle relationships between environment and stakeholders, assemble resources and develop products (Evangelista, 2005, cited in Jones et al., 2011). The commonality of problems indicated the need for one framework that will shed light on them (Churchill and Lewis, 1983). Despite being considered overly simplistic, firm lifecycle models can help to understand the organizational behaviour of small entrepreneurial firms and challenges occurring on each stage. (McAdam and McAdam, 2008)

Firm lifecycle theories are originally from the strategic management field. They describe how firms go through growth stages. The process of going between stages is often compared to biological processes of birth, growth and death. There are several lifecycle models with different numbers of stages, though models by Greiner (1972) or Churchill and Lewis (1983) remain the most popular of all. (Paschen, 2017). Churchill and Lewis's (1983) model of a firm lifecycle is exemplary in the field. Its stages vary by business size, complexity, management style, and organizational goals. The stages are named as Existence, Survival, Success, Take-off and Resource maturity. By knowing the exact stage where the firm is, an entrepreneur can understand existing problems and anticipate future challenges. (Churchill and Lewis, 1983)

The relation to both entrepreneurship and the resource-based view is shown in Churchill and Lewis's (1983) firm success factors. The resource-specific (also: firm-specific) factors include financial, human and system resources, as well as business resources. The latter include relationships with stakeholders (customers and suppliers), technology, structures, manufacturing, distribution, and reputation. Individual (entrepreneur specific) factors include congruence between own and business goals, vision and ability to set goals based on the company's strengths and weaknesses. Those also include capabilities in marketing, inventing, producing and managing distribution (Churchill and Lewis, 1983). The importance of firm-specific resources agrees with the resource-based view, whereas entrepreneurial vision, and goal-matching coheres with effectuation and entrepreneurship theories.

4.1 Seed stage

As mentioned in the Chapter “Delimitations”, the focus of this work is placed on the earliest stages of firm development. Seed, pre-startup or Existence stage is the stage when the business idea has not materialized yet (Westhead et al., 2011). In this stage a founder is busy exploring idea’s feasibility, target market, customer problems, potential partners, distributors, and competitors, as well as preparing business plans. Research and Development routines as well as preparation for product launch are important routines at that stage. (Paschen, 2017). The key aim is to keep the business alive. Other problems include getting the necessary amount of customers to make a viable business, scaling up customer base and production, and assessing the capital resources for covering large financial demands. (Churchill and Lewis, 1983).

An individual plays a very significant role at that stage of development. Matching business and personal goals, is crucial because not every can handle businesses’ heavy demands for financial, time and energy investments. Whether the business stays functional strongly depends on the owner’s ability to do any business activity, such as selling, producing or inventing. An entrepreneur is responsible that the team shares his/her vision and is willing to implement innovative practices. (Churchill and Lewis, 1983).

Because an entrepreneur performs multiple roles, the organizational structure is very simplistic, where the owner controls everything. Such structure is a result of having very few employees (sometimes, only a founder) that there is no one to delegate the tasks. (Churchill and Lewis, 1983). The company aims to only survive, so formal systems remain minimal to non-existent with an informal management style. The system, however, becomes more structured with time. (Churchill and Lewis, 1983; McAdam and McAdam, 2008). In the early stage there are usually very few members, an entrepreneur must choose technically and managerially competent team members with a proper work ethic and competences in the level above the average. (McAdam and McAdam, 2008; Churchill and Lewis, 1983).

The Existence stage is very demanding resource-wise. A lot of resources are spent on research and development and stabilizing product quality. Usually the resources come from own savings or 3Fs, “family, friends and fools”. At that stage, an entrepreneur must assess whether capital resources can cover huge financial demands of an early stage. Access to external resources is very limited at this stage. Thus, often owners either fully abandon or sell their business when startup capital runs out. The ones who managed to withstand pressures of business formation proceed to Stage II, Survival or startup stage, described in the upcoming chapter. (Churchill and Lewis, 1983; Mac an Bhaird, 2010; Westhead et al., 2011).

4.2 Startup stage

In startup, also so-called survival stage, the goals, business idea, and business model feasibility are already defined. At this point, the main challenge is refining the prototype into a minimum viable product. Paschen (2017) in her work shows that product validation and market validation are the main challenges. The former concerns whether the product serves well customer needs and if it can potentially be improved, while the latter concerns the willingness of customers to purchase the product and for what price. Expansion of customer segments is also crucial, as well as the implementation of marketing plans and preparation for commercial launch. Notably, those notions intercept with the ones of Existence Stage by Churchill and Lewis (1983). The borders between two stages are not very clear cut, as well as definition differs by years, 1983 versus 2017. The main difference lays in a confirmed business idea and convergence between individual and company goals. (Churchill and Lewis, 1983; Paschen, 2017).

What is noticeable in Survival stage is the decreasing role of the owner’s competences. This is largely because the owner has to face more responsibilities that are too hard to handle for one person. As a result, he or she has to delegate to team members. Delegation is rather a necessity than a choice, especially since more people enter the team. Instead, entrepreneurial capabilities as a manager of other people are more essential. The organization is becoming more structured. The shift towards a more structured system is necessary for moving further in stages of lifecycle development. (Churchill and Lewis, 1983; McAdam and McAdam, 2008)

4.3 Growth stage

The growth stage starts when a firm has already validated its products and market and has become a profitable organization. They have already reached sufficient size and market penetration. In the growth stage, the focus is placed on enhancing the processes, scaling operations, being profitable and having an above-average income. (Paschen, 2017). While in earlier stages firms widen their spectrum of opportunities, in the growth stage they need to sharpen their focus of opportunities and start building commercial skills. (Fraser, Bhaumik and Wright., 2015:74). Moreover, in the growth stage, the role of own savings decreases, though firms can self-finance with retained profits. Firms already have a history of profitability at this point, thus they can access external financing. This includes venture capital, business angels, bank loans, regional funding and public equity. (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011).

In sum, the aims of the firm change from just product validation (seed stage), to product launch and expanding market and customer base (startup), and further stabilization in the market. Seed stage requires an entrepreneur to control many issues and demands a lot of resources, especially injections of finances. Table 3 summarises the goals, challenges and role of an entrepreneur at each stage.

Stage	**Goals**	**Challenges**	**Involvement of an entrepreneur**
Seed	R&D, idea feasibility	Keeping business alive, high chances of business closure	Very high, entrepreneur is involved in every aspect
Startup	Product validation, preparation for commercial launch	Getting customers	High, entrepreneur does more managerial activities
Growth	Scaling operations, keeping profitable	Keeping focus of opportunities	Moderate, rather managerial activities

Table 4. Characteristic of firm lifecycle stages

Notably, lifecycle theories discuss the increase of possibilities for financing increasing as the firm progresses. Different forms of financing are discussed in the next chapter.

5 ENTREPRENEURIAL FINANCING

In the chapter “Firm Lifecycle Theories” availability of different financial resources at each stage. It is known from previous chapters that firms use resources differently at various stages. Lack of resources can have the most drastic impact in the seed stage (Existence stage) because it may lead to the closure of the business. Resources are responsible for providing a sustained competitive advantage. Entrepreneurs are responsible for assembling resources. (McAdam and McAdam, 2008; Churchill and Lewis, 1983; Fraser et al., 2015; Westhead et al., 2011; Kozlenkova et al., 2014).

This chapter gives insight in options of financial resources available this day and time. This is necessary to understand choices of entrepreneurs. As mentioned in the chapter “Delimitations” this work concerns primarily early stages of firm’s development. In same fashion, both external and internal financing will focus on seed, startup and early growth.

5.1 Traditional forms of financing

These forms of financing have been traditionally available for companies for many decades and they include internal, debt and equity financing. Internal financing is commonly used among companies at the seed stage. This financing can come from either a previous job or even prior business. Although entrepreneurs often prefer to use internal financing as much as possible (see chapter “Challenges of financing”), often self-financing cannot cover huge capital demands and, therefore, entrepreneurs have to close their businesses. Internal financing can often be the only option for an entrepreneur since access to external finances requires some commercial success, which nascent firms do not have. It is also very common to finance a business from 3Fs, Friends, Family and “Fools” in the form of equity (investment into the business) or debt (family loaning money with agreed-upon interest rate). (Churchill and Lewis, 1983; Paschen, 2017; Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011).

5.1.1 Debt Financing

Debt financing involves borrowing money from a lender, normally a bank, which a borrower must repay in a given period with an interest. Loans are often preferred by young firms who are unwilling to sacrifice ownership of a firm by giving shares to venture capitalists or business angels. (Westhead et al., 2011; Fraser et al., 2015; Hecht, 2016), which is an advantage of full autonomy in business decisions. Loans do not affect the direction of the business, and the interest on the loan is tax-deductible, protecting part of the business from taxes, reducing tax liability annually. Nowadays it has become increasingly easier to get more favourable terms of loans than traditional commercial banks. (Peavler, 2017; Hecht, 2016).

However, one of the main disadvantages of debt financing is that it can take many years for a business to repay the loans. The payment terms are very rigid. If a business breaches those terms, they risk ruining their credit score and further borrowing can be very difficult. If a business reaches bankruptcy, then business or personal assets are taken as collateral by a bank. (Westhead et al., 2011; Hecht, 2016; Peavler, 2017). In sum, loans appear to be attractive to freedom of decision-making. However, this option is mostly unsuitable for seed or startup companies because it requires profitability history, which can only be found in early growth stages.

5.1.2 Equity financing

Equity Financing is another traditional form, where the ownership of the firm is traded to external parties, venture capitalists (VCs) or business angels (BAs) in exchange for their capital. This form of financing is most appropriate for fast-growing startups, especially high technology firms that aim to internationalize. (Hecht, 2016). Companies can either pay dividends (portions of the company's earnings in cash or stock (O'Brien, 2015) or shares on time. (Surbhi, 2015; Westhead et al., 2011). VCs are interested in the actual capital gain, which can sometimes be a sale of the firm. (Westhead et al., 2011). They often ask for decision making power in determining the direction of the firm. Venture funds usually come from capital firms that comprise of professional investors with entrepreneurial and financial experience. (Brooks, 2013). They choose a limited number of projects and work with them up to ten years before the investment is repaid. The main criteria for choosing a project is the project's *feasibility, potential for target rates of return* and *transparency in information*. In other words, they are attracted to high-risk and high-growth potential companies. They can proactively seek potential investment candidates rather than solely reacting to business plans delivered to them. They can work across different firm lifecycle stages, though most commonly they focus on startup and early growth. (Westhead et al., 2011; Brooks, 2013). Business Angels are often confused for venture capitalists, though there are some essential differences. First of all, the source of funding for angel investment comes from private individuals while venture capital has both private and public sources. Business Angels are often former entrepreneurs who sold their business but still would like to invest in another venture without running it. Some of them are managers who have slack resources and willingness to invest in risky ventures. (Brooks, 2013; Westhead et al., 2011). Business Angels, unlike VCs, usually provide smaller scale investments in a project. The minimal sum is usually over €10,000 (Etula, 2017). Business Angels offer more flexible terms compared to regular VCs: they require lower internal rates of return, have lower transaction costs relating to investment selection and monitoring and have less strict policies towards paying off. In addition, they are less concerned with market risk, investing in a broad range of sectors with high growth potential. Nevertheless, they can be biased towards sectors familiar to them. Another challenge is that they are quite difficult to find: business angels belong to networks sponsored by either public organization (e.g. government) or some private entities. (Brooks, 2013; Westhead et al., 2011).

Equity financing offers the availability of cash that an entrepreneur can use to grow the business as the main advantage. In case of failure, fails an entrepreneur does not have to pay back the investments. Besides capital, investors can offer a wide range of services, such as experience, coaching and industry connections. (Peavler, 2017; Hecht, 2016). Nevertheless, equity financing brings some significant disadvantages. However, equity financing has some significant disadvantages. Obtaining financing from venture capitalists is usually time-consuming. Investors are interested in ownership of business and decision-making power. An entrepreneur has to act in the best interest of other stakeholders. Otherwise, an entrepreneur might face lawsuits or even be forced to leave. (Peavler, 2017; Hecht, 2016).

5.2 Emerging forms of financing

Accelerators, incubators and crowdfunding are the most representative emerging forms of financing. They have rapidly gained popularity as alternative methods to raise funds (Fraser et al., 2015). This has been largely attributable to an outbreak of the global financial crisis in 2008 when traditional equity and debt financing acceptance rates had fallen dramatically (Nielsen, 2013; Hathaway, 2016). Nowadays those forms are used as complementary to traditional ones.

5.2.1 Accelerators and incubators

Accelerators emerged quite recently, in 2005 (Y Combinator, USA) and in 2007 (Seedcamp, UK) and gained their popularity after the financial crisis outbreak in 2008. Soon their popularity spread onto universities which started to have on-campus incubators. (Nielsen, 2013; Hathaway, 2016). They organize different programs that enable entrepreneurs to advance from a concept to a ready product. The terms “accelerator” and “incubator” are used interchangeably, although accelerators are driven more to obtaining funding, whereas incubators focus more on mentoring. Accelerators include mentoring during a fixed period, and provide early-stage funding in exchange for equity. (Fraser et al., 2015; Nielsen, 2013). Any firm can apply for the program, but the selection is competition based. Unlike VCs or angel investors, incubators work with some defined industries, rather than individual companies or founders. (Nielsen, 2013; Hathaway, 2016).

One obvious benefit of accelerators is shortening product development processes by three to four times compared to work done by own efforts. The same goes for more intensive learning. Participating firms can advance in their lifecycle stages significantly faster than their non-incubator-based counterparts. (Nielsen, 2013; Hathaway, 2016; McAdam and McAdam, 2008). Injection of funding is especially crucial for companies that are not generating revenues yet because they can fully focus on their projects without worrying about financing. Nevertheless, the key focus of incubators is to make companies generate their venues or prepare them for the second round of funding. (Nielsen, 2013). Connections to VCs and overcoming uncertainty between an entrepreneurial firm and an investor were mentioned as one of the most important benefits (McAdam and McAdam, 2008). Mentorship is an inherent benefit of both accelerators and especially incubators. Entrepreneurs get access to business advice, including special growth programs and seminars. Incubators provide services such as business advice, conference facilities, canteen, and car parking. Those services are usually less costly than individual premises and services. (Nielsen, 2013; McAdam and McAdam, 2008). Accelerators and incubators also provide working space. It helps businesses to focus on their projects without getting distracted on moving from one place to another. (McAdam and McAdam, 2008). Last, but not least, is that entrepreneurs stay in the circle of likeminded people, they have access to teams and employees feel involved in decision-making, resulting in higher morale, enthusiasm, and motivation. (Nielsen, 2013; Hathaway, 2016; McAdam and McAdam, 2008).

All the benefits of accelerators can be eradicated if accelerator's programs are of low quality. If normally accelerators increase company survivorship by 10% to 15% (Nielsen, 2013), Some accelerator programs can make no to a negative impact on the firm's growth. Failures and acquisitions are common among accelerator participants. Accelerators' aims are rather directed at an intensive learning process for a firm, rather than purely getting funding for early-stage startups. (Hathaway, 2016). Mentoring, though initially helpful, can deprive entrepreneurs from their independence: as McAdam and McAdam (2008) mention, entrepreneurs cannot take any decision without consulting their mentors. Also, the very physical location in the incubator gives an image of immaturity to new firms. Some entrepreneurs had to tell customers that they were working in an innovation centre. As firms progress in the lifecycle, firms start to rely less incubator's advice. (McAdam and McAdam, 2008).

5.2.2 Crowdfunding

Another emerging form of financing that has been gaining popularity is crowdfunding. Crowdfunding is defined as a practice when people support a project or a cause with small financial contributions either directly or through online platforms (Pichler and Tezza,2016: 5 in Bottiglia and Pichler, 2016). Crowdfunding is a combination of crowdsourcing and microfinance. Crowdsourcing brings the function of a company in the form of an open call from a network of people. Microfinance comprises of small-scale financial services, such as loans, savings and fund transfer for small businesses (Kiva, 2018). Thus, crowdfunding is "a particular form of crowdsourcing whereby the crowd is asked to provide a solution to a financial problem, namely, the lack of financial resources" (Pichler and Tezza, 2016:9).

Crowdfunding as such is not a new phenomenon since even Beethoven and Mozart used it. Moreover, The Statue of Liberty saw the light in 1876 through donations of citizens of the USA and France. Modern crowdfunding is the result of structural change, specifically, spreading of Web 2.0 technology and the 2007-2008 credit crunch. Even after the crisis crowdfunding retained its popularity and became a complementary source of funding for SMEs. Seed and startup companies create a lot of demand for crowdfunding, because it is very challenging for them to obtain traditional bank loans, venture capital or angel investment due to lack of operating history. (Paschen, 2017; Pichler and Tezza, 2016; Fraser et al., 2015).

A crowdfunding campaign comprises of three crucial elements: business (or social) goal, crowd, and a reward. The crowd is a group of mostly non-professional investors (though professional ones can also participate in the campaign) who are willing to monetarily back up the project and entrepreneurs. Rewards can be monetary or non-monetary. By funding goal campaigns can either be “All-or-nothing” (AON), when an entrepreneur gets funds only if the goal is achieved, or “keep –it-all” (KIA), when an entrepreneur keeps all the funds raised irrespective of whether the goal was achieved or not. (Pichler and Tezza, 2016).

Campaigns are classified based on reward into *donation, lending* and *equity* crowdfunding. *Donation* crowdfunding does not necessitate an entrepreneur to offer any financial reward, which makes it attractive for a firm in the seed stage of development. Usually some intangible benefits are offered, such as personal recognition or possibility to participate in the process. (Paschen, 2017; Pichler and Tezza, 2016).

Lending crowdfunding belongs to the reward-based crowdfunding family. It works in ways similar to banks, with paid interest and principal at the end of the lending period, though paid to peers. This type is also named peer-to-peer (P2P) crowdfunding (or lending). This is the largest crowdfunding form by global volume. There are two models of lending crowdfunding. In *pre-sales model* users pay for the product they are going to use and then receive it with a discounted price when the production is complete. One popular case was Pebble Smartwatch who raised over $10 million on Kickstarter and delivered its first batch within 10 months after the campaign. Those campaigns help to estimate the market value of a product. (Pichler and Tezza, 2016). Some platforms offer *traditional lending agreements* (similar to a bank loan) and forgivable loans, where the owner repays the loan only if the project becomes profitable. *Lending crowdfunding* is appropriate for firms at the startup stage who are preparing for launch and already have a product prototype. At this point they are already able to reward their backers by either financial interest or a pre-sales product. Investors can become early adopters, laying the pathway to commercialization and competitive advantage. (Paschen, 2017; Pichler and Tezza, 2016)

Equity crowdfunding is the fastest-growing type of emerging financing at the moment. Unlike prior types, equity crowdfunding is run by professional individuals or companies that buy shares get a return in the form of dividends and(or) capital gain. This is more appropriate for growth-stage companies, rather than startups. The reason for that is in growth stage firms have more stability, therefore, they can provide more return to their supporters. Owners are more flexible to give away some control of a company. (Paschen, 2017; Pichler and Tezza, 2016).

Crowdfunding brings a wide range of benefits. It makes it easier for firms in the early stages, especially for those in the seed stages, to get financing. This is very crucial for such firms because they normally do not have a track record of trading, therefore it makes it challenging to attract venture capital or get a loan. It is relatively easy to raise small sums of funding (less than USD 10,000) because it comes from a wide audience and small individual contributions. A single contribution can be as small as USD 25. Crowdfunding can generate greater returns than in bank deposits and savings because small amounts come from multiple investors. (Fraser et al., 2015; Pichler and Tezza, 2016; Paschen, 2017). Crowdfunding offers a range of non-financial benefits as well. Companies get a lot of organizational learning, refine their marketing objectives, reach a wide audience, learn how to pitch to the large audience and attract investors. Crowdfunding is one of the best ways to test an idea’s feasibility because users give feedback on product performance cost-free. Getting the product into the hands of users guarantees better market penetration. A successful crowdfunding campaign can improve a firm’s chances to succeed with traditional financing forms, such as VCs and banks. (Paschen, 2017; Pichler and Tezza, 2016).

The pitfalls of crowdfunding are mostly related to the public nature of crowdfunding platforms. Intellectual property and identity theft are very common: an idea can be stolen, as well as an entrepreneur’s data and identity. Fraud can come from either some campaigns in the form of hidden action (using the money for purposes other than project) and hidden information (failing to provide sufficient data), or platforms themselves. Although platforms offer credit risk in case the loans are not paid and monitor campaigns, lack of adequate evaluation is still common because users of platforms are mostly non-professional investors. Entrepreneurs themselves can set funding goals inadequately and, as a result, fail to deliver the product and damage their reputation. (Pichler and Tezza, 2016; Fraser et al., 2015). Table 4 below shows the provision of each form of financing available at different stages of the firm lifecycle, advantages and challenges inherent in every form of financing. It is worth noticing, that multiple factors affect the success of obtaining financing: industry, market factors and the business idea itself.

Form of financing	Stage(s)	Advantages	Challenges
Internal	Seed, Startup, in later stages in form of retained profits	Full autonomy in business decisions Often the easiest option	High risk of undercapitalization
3Fs	Seed, Startup	Flexibility Easily available	High risk of undercapitalization
Debt	Early growth, rarely startup	Full autonomy in business decisions	Very strict terms Loss of property in case of failure to pay the loan
Equity (Vcs and BAs)	All stages, but more common at startup and early growth	Large investment from very beginning Mentoring	Partial loss of independence in business decisions, loss of ownership
Accelerators and incubators	Seed and startup	Mentoring Facilities Networks Some injection of funding	Variable success depending on quality of an incubator Lack of independence Connection to incubator may give out image of immaturity
Crowdfunding	All early stages	Fast collection of funding Creation of crowd capital Testing idea feasibility Market validation	Exposure of intellectual property Risk of identity theft Fraud

Table 5. Financing by stages. Adapted from Pashen (2017), Mac an Bhaird (2010) and Pichler and Tezza (2016)

5.3 Challenges of financing

Nowadays firms have significantly more possibilities to obtain financing than a decade ago, though some challenges persist. Some of them are purely external, such as uneven possibilities by industrial sectors, financial crisis or market failure. (Westhead et al., 2011; Fraser et al., 2015; Mac an Bhaird, 2010).

Undercapitalization is a very common challenge at seed and startup stages because often entrepreneurs either source from 3Fs or their savings. Those investments are often insufficient. (Westhead et al., 2011; Peavler, 2017). As a result, eight out of ten entrepreneurs fail within one and half a year due to an inadequate amount of starting capital (Peavler, 2018). Entrepreneurs with their decisions can create additional challenges. Many of them have preferences slewed towards internal, rather than external financing, according to pecking order theory (POT). This is an effect of ownership dilution: by giving to shares, entrepreneurs lose control of their venture. External financing is generally perceived rather difficult to get, which also explains such preferences. Nevertheless, firms become more open towards different types of investors as they advance in their lifecycle. However, as firms become more profitable, according to Fraser et al. (2015), they depend less on external finance injections. (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011; Peavler, 2018).

Entrepreneurial cognition and behaviour indeed affect the process of obtaining financing. Often SMEs are informationally opaque (difficult to assess and screen), they create information asymmetries by not providing sufficient information. Cue utilization, the use of surrogate information (cues) to infer about product quality and characteristics is very common, especially in crowdfunding campaigns (Paschen, 2017). As a result, investors are often risk-averse towards SMEs. (Westhead et al., 2011; Fraser et al., 2015; Paschen, 2017). Yazdipour (2011) in his work “A Behavioral Finance Approach to Decision Making in Entrepreneurial Finance” discusses that entrepreneurial behaviour is a part of total perceived risk by an investor. If residential risk, a risk inherent in the business opportunity per se, cannot be controlled, behaviour of entrepreneurs can control the total risk.

Financing is currently available in more forms than ever. Yet, its availability differs for the firm’s stage and objectives. Moreover, entrepreneurs themselves make their choices and exhibit certain behaviours. Theories have allowed to get a glimpse into topics of entrepreneurial financing, effectuation, resource-based view and firm lifecycle theories and the possible connection between them. Yet, empirical data is needed to give a more complete image. Research methodologies describe strategies and assumptions that guide gathering and analyzing the empirical data.

6 RESEARCH METHODOLOGY

There are two main objectives of this research. The practical objective is to help a company in the seed stage to move into commercialization. The research objective of this work is to gain insight into how entrepreneurs affect choices of financial resources with their decisions at different points of the firm lifecycle. The research plan helps to reach those objectives.

This works follows the qualitative research methodology. Qualitative research is meant to study settings in real world and grasp contextual aspects, especially in people's lives. Qualitative research allows for conducting in-depth studies about a broad array of topics. Not only does qualitative research capture the real-life context, but gives insight into the experiences of people living in those contexts and represent their views and perspectives. (Yin, 2011). The phenomenon studied at hand is a firm in the mountain biking market which is aiming to start commercializing. The phenomenon is complex not only from the point of being a specific market segment, but also because a firm is in a very nascent stage. Qualitative research enables to cover the themes as wide as entrepreneurial financing, firm lifecycle as well as contextual factors. Context is very essential here since do not exist in a vacuum and depends on external factors, such as economic conditions, market demands, policies and et cetera.

6.1 Research design

Research design is a plan for how a researcher can answer research questions with clear objectives, sources, and types of data to retrieve, potential constraints and ethical issues. Research design includes research aims and methods (also: strategies of inquiry). (Saunders et al., 2009)

There are eight types of qualitative research design (Yin,2011). This work follows a case study design. A qualitative case study can be defined as empirical research that studies a focused phenomenon using contextually rich data from the real world (Barratt, Choi and Li, 2011). Indeed, case studies are usually chosen when an investigated phenomenon is inseparable from its context. Using multiple sources of evidence is common for case studies (as well as for all qualitative research) (Saunders et al., 2009).

Case studies are often used to develop new theories, using mostly inductive logic (Barratt et al., 2011). A case can be a single person, organization, location or event (Bryman and Bell, 2011). It is crucial to know the unit of analysis to define the case's relation to the existing body of knowledge and know the limitations in applying the theory (Barratt et al., 2011). In this work the unit of analysis is an entrepreneurial firm. The researcher interviewed founding entrepreneurs because the target firms are small in size and mostly in the early stages of the firm lifecycle (seed, startup and growth), where a founder still plays an important role.

Case studies are often used when the theory at hand cannot fully explain the phenomenon under investigation and when research has evident exploratory and explanatory elements (Baratt et al., 2011). Effectuation theory concerns entrepreneurial decision-making, but does not specify how it works for a firm in the seed stage. The resource-based view concerns the role of resources, but has little explanation for the role of entrepreneurs. Firm lifecycle theories describe goals and challenges for a firm in a different stage of its lifecycle, but they do not tell about cognition neither about resource demands. Because phenomena at hand have very fragmented information, it is worth to conduct an exploratory study. An explanatory element is present in the main research question.

While case studies are often used for studying a single organization, it is also possible to study several organizations, compare them and draw conclusions from those findings. Yin (1994; cited in Ghauri and Grønhaug, 2010) provides four case study designs: single and holistic, single embedded, multiple holistic and multiple embedded. Holistic cases consider an entire organization as a unit of analysis, whereas embedded focuses on a part of an organization (Saunders et al., 2009). Multiple case studies are appropriate when a researcher is using inductive logic but is also looking for generic explanations. This type of research design is appropriate when studies do not involve rare, critical or revelatory cases. (Ghauri and Grønhaug, 2010) This work follows multiple case study design with holistic cases (firm as a unit of analysis). Although research questions are based on theories, as in deductive research, they serve rather as a guide to this work and help to interpret the data coming from interviews. It has not been known a priori whether the cases were unique, though in this work cases have a lot of commonalities and can be considered generic.

Current research consists of exploratory, descriptive and explanatory phases depicted in Figure 2.

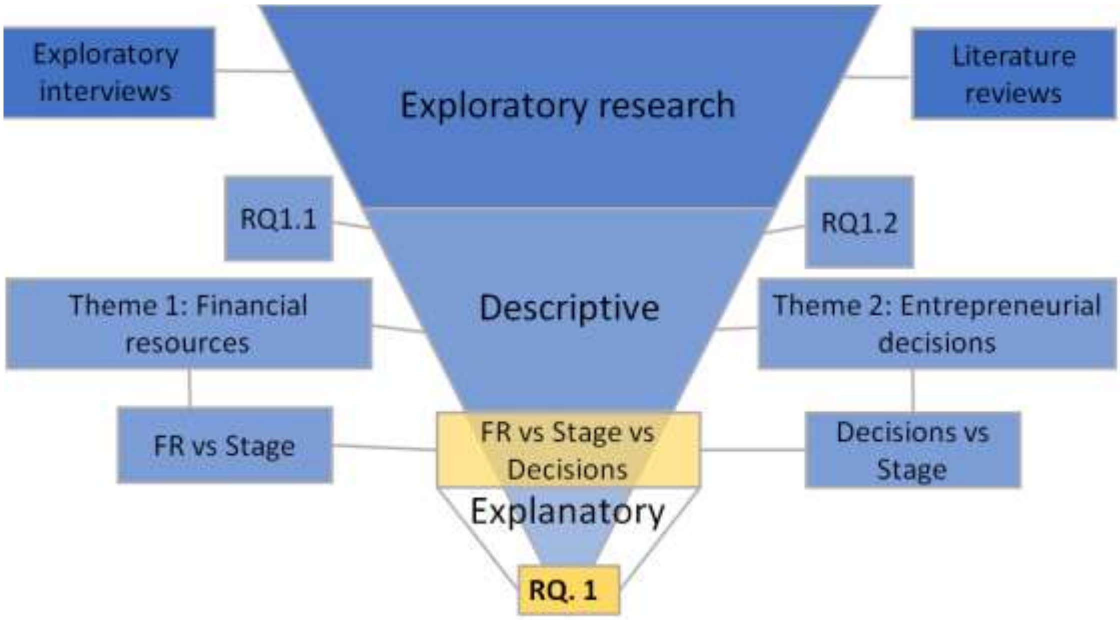

Figure 2. Research Design

Qualitative semi-structured interviews were used throughout all stages of this research. Those interviews are highly valued in case studies primarily due to their flexibility. Qualitative interviews are especially acceptable in the exploratory stage: they permit a lot of flexibility, such as asking additional questions based on interviewee's answers, skipping questions, changing their order and following up. Unlike in quantitative surveys, those deviations shed light on new aspects of the phenomenon. (Bryman and Bell, 2011). Case studies can answer 'why?' as well as the 'what?' and 'how?' questions, they are often used in explanatory and exploratory research (Saunders et al., 2009).

The exploratory stage started with open-ended interviews with case companies, primarily aiming to get acquainted with the company in detail. The interviews were needed because case companies had little public information available. The interview questions were not strictly defined, but rather served as an interview guide, with a list of themes that needed to be covered. (Saunders et al., 2009). For example, questions in the exploratory stage concerned description of the business (Q1), goals of the founder regarding the business (Q2), current stage of development (Q3), current challenges (Q4) and what could help entrepreneurs to overcome them (Q5). The last question was about the role of financial resources in overcoming challenges (Q6) to give the precise direction to conversation. The questions can be found in Appendix 1.

The second phase of the research was descriptive. Descriptive studies aim to depict the situation as it is, the final aim is arrival to the conclusion. This raises the question of whether case studies can pursue descriptive aims, since they are mostly associated with either exploratory or explanatory aims. Ghauri and Grønhaug (2010:109), on the other hand, see cases as descriptions of management situations. Notably, Saunders et al. (2009:146) admit that cases can also answer "what?' and 'how?' questions, which are descriptive. Based on this, the case study remains an appropriate research design for descriptive aims. The questions *"RQ1.1 How resource demands for development differ as the firm advances in its lifecycle?"* (RQ1.1) and "*How decision-making modes change as the firm progresses from seed stage onwards?"* (RQ1.2) are rather descriptive. Those are mostly associated with exploratory research. Qualitative semi-structured interviews were still used, although there had been some substantial differences compared to the exploratory stage. First of all, the interview guide had more links to theory. Secondly, the questions became more specific, based on research objectives under each research question.

In order to answer RQ1.1, the questions on resources were asked. The first theme of the research was coded as Financial Resources (FR). As mentioned in the chapter "Delimitations", financial resources are the key focus of this work. The importance of resources was emphasized by entrepreneurship scholars, such as Sarasvathy et al. (2014: 78,80) and Jones et al. (2011). The first question (FR1) was *"How are you planning to utilize them?"* and it was based on articles of Foss (2011) and Alvarez and Busenitz (2001) that tell that entrepreneurs achieve success differently because they utilize and assemble resources in a different way. Related to this, a question (FR2) *"How are you going to obtain those resources?" was asked. This question is crucial to the work, since obtaining resources is an essential step for moving forward.* The question (FR3) related to lifecycle theories, specifically moving along stages *"Do you think your needs for FR will change as you proceed and how?".* As it is noticeable from the literature review, especially from Churchill and Lewis (1983) and McAdam and McAdam (2009) the early stages are the most resource-intensive ones, especially regarding research and development. The literature suggests that demands for resources might change as the firm grows. The last question was about the impact of not getting the finance (FR4) *"What impact will it make if you do not get resources?"* and it was based on a notion of impact of the absence of financial resources in different stages. In the seed stage firms have very limited options for external resources, needing mostly to rely on internal savings. Those may not be sufficient, and business is mostly threatened by closure. (McAdam and McAdam, 2008; Westhead et al., 2011; Paschen, 2017; Churchill and Lewis, 1983). As the firm proceeds in its development, more options become available, including own profits, as well as long-term finance from financial institutions, VCs, regional funding, Business Angels, bank loans (debt financing) and public equity. (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011). This information leads to a proposition that the lack of resources has a stronger impact in early than later stages. The theme "Financial Resources versus Stage" emerged, depicted in Figure 2.

The next series of questions were themed as "Entrepreneurial Decisions" aimed to answer the key objective of question RQ1.2 which was to learn about the change of decision-making modes from seed and forward. The questions were based on effectuation theory; thus, effectuation principles are engrained in questions. For example, in question (ED1) asked about what decisions were the most essential in the start of the venture. This question was based on both effectuation theory and the study of entrepreneurial decisions of Maine et al. (2015). The answers could potentially be related to finding the right partners, venues, assembling resources, and et cetera, which would relate to effectuation theory. The second question (ED2) asked about potential decisions regarding access to funding. Those decisions were described by Maine et al. (2015) as one of the most primary and one-time decisions, led mostly by effectuation principles. The third question (ED3) asked about the restrictions they had to face. The idea came from the study of Maine et al. (2015) study which revealed that entrepreneurs were more likely to act in accordance with effectuation principles in the face of low and moderate constraints, and in accordance with causation in the face of severe constraints. The fourth question (ED4) was related to the previous one and concerned how entrepreneurs' decisions changed based on those constraints. The change was registered in the study of Maine et al. (2015) that entrepreneurs in their later decisions started to react more on the information and contingencies. Though generally entrepreneurs are rather spontaneous and short-term orientated, following five effectuation principles (Sarasvathy et al., 2014), their decision-making mode can change also due to their changing role in the company. For example, in the seed stage entrepreneur has to rely a lot on own skills, doing almost everything in the company. An entrepreneur directs all the efforts to product development and keeping business alive, thus they have to choose partners with above-average competence. As they proceed to startup (in Churchill and Lewis (1983) Survival stage), their goals become more defined, their aims change from just keeping business alive to product validation and acquiring customers and the team grows. As a result, an entrepreneur plays more the role of a manager and already needs to delegate the tasks. (Churchill and Lewis 1983; McAdam and McAdam, 2008; Mac an Bhaird, 2010; Westhead et al., 2011; Paschen, 2017). Therefore, the question (ED5) was asked on how those entrepreneurs see their role change. The questions are attached in Appendix 2. The theme "Decisions versus Stage" emerged, depicted in Figure 2.

During the exploratory and descriptive stages, the researcher has collected enough data to answer the main question of this work is "How entrepreneurial decision-making in different stages of lifecycle influences on choices regarding financial resources?" (RQ1). The keyword "influences" implies some causal link. In essence, the explanatory stage was a synthesis of findings of two prior stages with the triangulation of other sources, such as theories and publicly available information. Although the original idea for this stage was to interview investors, the other side of the problem, limitations in finding the right sample that would be interested in extreme sports as well as overall low response rates became a challenge. As mentioned in the chapter, some of the investors, particularly business angels keep their information private. The explanatory stage helps to answer the question on "Financial Resources versus Stage versus Decisions", a synthetic theme born out of the two prior ones.

6.2 Validity, Reliability and Ethics

In every single existing research, questions of reliability and validity arise. Reliability concerns if the research produces the same results after being repeated. Validity concerns if the findings show what they are supposed to show. (Saunders et al., 2009). Although those are the key elements to prove the quality of research, reliability, and validity had been evidenced more in quantitative research. (Hayashi, Abib and Hoppen, 2019)

Often the criteria of reliability and validity in qualitative research are replaced with trustworthiness and rigor. Rigor is responsible for research to be worthy and not be a fictional piece. Trustworthiness, according to Lincoln and Guba (1985; cited in Hayashi et al., 2019) is, in essence, a replacement of the term validity. Trustworthiness includes credibility, transferability, dependability and confirmability. According to Onwuegbuzie and Johnson (2006; cited in Hayashi et al., 2019), each of these criteria replaces some of the quantitative counterparts. Credibility replaces the quantitative concept of internal validity, whereas transferability replaces external validity. While dependability is analogous to reliability, confirmability encompasses the idea of objectivity. (Hayashi et al., 2019)

This work uses the principles of trustworthiness and rigor, as proposed by Lincoln and Guba (185) as well as Onwuegbuzie and Johnson (2006). Rigor in this work manifested in profound search of information as well as consistent procedures while obtaining empirical data. Information was collected from reliable sources, mostly from academic journals or specialized public sources, such as the European Commission website or OECD publications. Criteria for selection of cases were followed strictly. All cases received the same set of questions, though the order might have varied. Cases were approached in a very uniform way with an introduction letter regarding purposes of studies. Regarding trustworthiness criteria, credibility is analogous to the concept of internal validity, measuring what is supposed to be measured (Saunders et al., 2009). Questions in the empirical parts were developed on the assumptions that arose through the literature review. Roles of resources were measured, and relationships were established from the answers of respondents. Transferability is analogous to external validity and means the generation of sufficient case information that can be applied to other cases in other contexts (Duxbury, 2012). This was achieved primarily by triangulation of both interview data from respondents and secondary sources. Data generated during this research can serve as the basis to ampler quantitative research for firms in the same or distinct industry. Transferability of this work was increased by application of multiple case research design: unlike single case studies, multiple case analysis usually allows for more generalizability (Yin, 2011). Dependability is analogous to reliability and it concerns how the research process is logical, traceable and documented (Duxbury, 2012). Hayashi et al. (2019) describe it as processual validity, when there is transparency at every single step. This research is well documented and every single step has been justified. For example, entrepreneurial decisions are studied based on the findings from the literature that entrepreneurs operate in a different way than managers do. Moreover, the rationale for choosing cases was described, as well as all questions asked to every case. Due to ethical reasons, only summaries of interviews were added.

Maxwell (2009; cited in Yin, 2011) offers seven strategies to combat threats to validity in qualitative research. First of all, a researcher must be fully involved in the field to understand the context of the situation (Yin, 2011). This work started with getting acquainted with the main case and discussing aims and challenges. “Rich” data is another strategy to increase the validity of the research (Yin, 2011). The richness of data in this work was achieved through using a wide variety of secondary sources, which is also a part of data triangulation, but also through constructing interview questions in a way that each question allows for significant elaboration. Respondent validation is being able to confirm with respondents if their answers were understood as they are (Yin, 2011). A researcher contacted all case companies to clarify if any misunderstandings occurred. Searching for discrepant evidence and negative cases means being sceptical towards own work and test rivalling explanations. Another interesting way is using quasi-statistics in qualitative research. Instead of using terms, numbers are used. (Yin, 2011). For example, instead of stating that someone uses the product rarely, one could state “once a month”. Last but not least is the comparison of results between different settings, groups, or events.

Having an ethical sense is necessary in every type of research because there are multiple choices made by researchers, especially in qualitative research. One of these ethical standards applies to situations when a participant of the interview is either incredulous or non-cooperative. Thus the question of excluding data may emerge. There must be very clear criteria when data must be excluded. (Yin, 2011). In this particular research, the cooperativeness of participants reduced towards the end of the stage. Though there had been relatively good response rates in the early stages, later the responses were significantly more scattered. The answers from a case were only excluded if the case provided no answers whatsoever to descriptive and explanatory questions. Otherwise, all information was considered viable for analysis, even when a case was mentioning that financing does not solve any of the challenges (see case A).

Research integrity is another criterion of ethical research, meaning that a researcher is providing truthful positions and statements (Yin, 2011). This is related to credibility criteria, which included triangulating different sources and having a well-documented research process. No fabrication occurred during this work, all statements were reported as they are. Another part of research integrity is the willingness to be proven wrong. Saunders et al. (2009) refer to this practice as objectivity, specifically emphasizing avoidance of skimming only desired data. In the chapter "Limitations of the study", the researcher acclaims that the problem is novel, and, thus some omissions might have occurred. Moreover, the researcher suggests ideas on how to get insight into a problem with different research designs. One of the ways of maintaining research integrity is to be willing to acknowledge its limitations and be disputed on (Yin, 2011). Disclosure is another way of demonstrating research integrity, that a researcher communicates clearly of how research aims and conditions are used (Yin, 2011). Each case was approached with an introductory email of who the researcher was, the aim of research and asked whether a respondent was interested in taking part or not. In the case of a negative response, a candidate was asked if he or she knows someone who would have been interested in the research.

Research design must not subject research participants into any harm (Saunders et al., 2009). No sensitive information was used. Anonymity was another issue. Although several case companies did not mind giving their real company name, all company names were replaced with codes (except for the main case) and their case descriptions were done in a way that they are not easily recognizable. Neutral descriptive tone was maintained throughout all case descriptions.

6.3 Case selection

Multiple case studies can sometimes be preferable to single cases because of their ability to generalize and identify patterns. However, a researcher should have a good rationale for choosing cases. (Saunders et al., 2009; Ghauri and Grønhaug, 2010). Firms were selected based on similarity to the main case. First of all, they needed to be in *the mountain biking market*, whether it is their main or auxiliary discipline. For example, a company that produces mainly cyclo-cross bikes but has a branch of mountain biking would be eligible to be in the sample. E-mountain biking was also included in the sample because this is the most prominent trend in the biking industry in general. Secondly, the *product* should have been a physical part of a mountain bike, whether a component, a frame or an entire bike. Accessories or apparel were not included. A physical product could be accompanied by software. The third criterion was *the stage of development*, and companies from seed to growth stage were eligible because the case company is placed between seed and startup stages. Most of the sample, however, was in the startup stage. Knowledge of the stage of development was retrieved by either content analysis or asked through interviews.

The size of the firm is positively correlated with the stage of development: at early stages firms are usually very small. This criterion was based on an official definition of SME by the European Union: a firm is considered small or medium-sized by staff headcount and either turnover or balance sheet total. A firm is considered small if it has less than fifty people in the staff and either makes a turnover of no more than €50 m or has a balance sheet of no more than €43m (European Commission, n.d.). Ideal candidates were less than ten person companies, though some firms were less than fifty people. The main case firm is based in Finland, which belongs to the EU. Thus, *location in the EU or EEA* was crucial because regulatory environments could be similar. There are two UK firms in the sample. UK has belonged to the EU and has only recently left the EU through Brexit on the 31st of January 2020 (Barnes, 2020). Notably, outsourcing from non-EU countries (e.g. Taiwan) and non-EU origin of the owner (main case) were acceptable in the sample. Approach to *volumes of production* was a very crucial criterion. The case firm is aiming for an artisanal approach. It would not be cohesive if other firms in the sample were mass-producers. To select the sample, some content analysis was performed. Table 6 summarizes all the criteria applied to the firms. Companies' names, excluding the main case were replaced with codes (A, B, C, and et cetera) for the reasons of anonymity.

Selection criteria	**Description**
Industry	MTB, including E-MTB, both as primary or secondary
Product line	Physical products, such as frames, components (forks, shocks, gears) or

	complete bikes NOT: accessories, apparel, software
Stage	Seed, startup, early growth
Size of the firm	Ideally, micro and small firms. Medium sized firms can be used only in case of non-response
Location	Headquarters in EU and EEA, pre-Brexit United Kingdom
Production volumes	Small batches, handmade, focus strategy, customizable product

Table 6. Case selection criteria

When a researcher chooses more than one case, questions regarding sampling arise. Unlike quantitative research, qualitative one does not aim to arrive at statistically valid conclusions, but rather to create explanations and gain understanding. (Ghauri and Grønhaug, 2010). Thus, researchers use non-statistical sampling, but rather theoretical or biased sampling approach. Cases are selected based on theory and can be chosen either to predict similar or contrary results. (Barratt et al., 2011). The selection of cases was following purposive sampling, based on similarity to the main case. Cases were found via a search engine using keywords, such as “artisanal” or “handmade” with specification “Europe”. However, some companies were found through referrals from the main case. Snowball sampling, or chain-referral sampling, refers to one candidate referring to others. This method is useful when the target research audience is hard to find. Since the main case was referring to multiple others, this is an example of exponential snowball sampling. This strategy was discriminative: cases were rejected by either incompatibility with criteria or for nonresponse. (Dudovskiy, 2019). The case selection process is depicted in Figure 3.

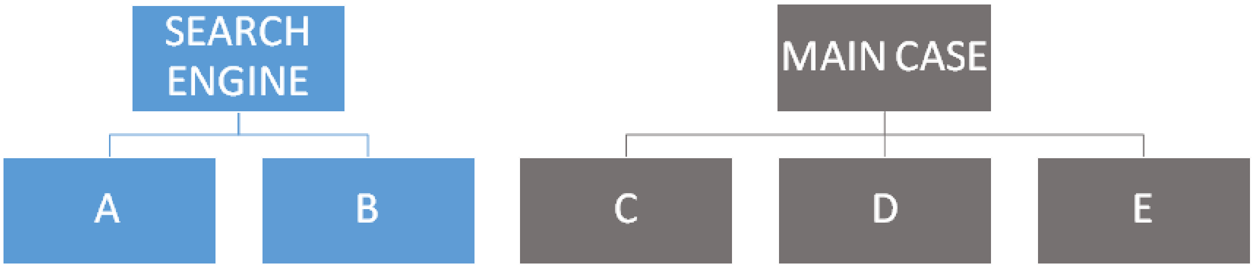

Figure 3. Sampling strategy

In multiple case studies, a question on the number of cases often arises. Fewer cases allow for more in-depth observation of each of them, while multiple cases can augment external validity and help guard against observer bias. Eisenhardt (1989; cited in Baratt et al., 2011) recommends a range of four to ten cases. Less than four cases might not give an entire and complex picture of the real-life context, while over ten cases might produce an overwhelming amount of information that is difficult to process. (Baratt et al., 2011). The amount of cases in this work is six, including the main case, which allows for some elaboration in responses as well as helps to identify common patterns.

6.3.1 Main case

This multiple case research design places one company in the centre of the research. This case company has become the starting point of this whole work. One of the reasons is that this organization is familiar to the researcher. Exploring familiar organizations is a very common practice in case studies (Saunders et al., 2009). This case reflects entrepreneurship phenomena in both narrow and broad senses: the former reflects the creation of a new organization, while the latter manifests in opportunity-seeking behaviour and risk-taking, that has led to establishing own venture outside of the home country.

Norland Cycles Project (referred to as NC or Norland Cycles) is a project of high-performance mountain bikes that is currently a company in the seed stage. The project started in 2010 when a Chilean-German Industrial Design student Maximilian-Peter Werner decided to convert his passion to mountain biking into not only a new bike frame design and, consequently to own mountain bike brand. In 2011 his prototype saw the light, followed by excessive mountain bike media attention. In the same year Mr. Werner to

Eurobike was invited to Eurobike, a well-known bike trading show in Europe. The vision of the owner is to bring to the market the bike with a unique combination of mechanical and design advancements.

In 2011 the owner of the brand moved to Finland in pursuit of opportunities. One of the reasons was the country's reputation for design, which could produce a positive country-of-origin effect on future brand image. Another reason was that although in Latin America there was a lot of interest in the product, there had been a lack of sufficiently advanced manufacturing technologies and production facilities. He started to pursue different opportunities in Finland, from working as an Industrial design teacher in Kymenlaakso University of Applied Sciences to an internship in Kevra Composites.

The core product of the brand are frames designed for extreme disciplines within mountain biking sport, such as enduro (going up and down steep hills), downhill (riding down mountains, often with rough terrains, with high speed), megavalanche (riding long distances in the mountains, often on the snow and ice) and all-mountain. Those disciplines are dominated by professionals and strong enthusiasts, because they require more advanced skills, and, therefore, more costs for bike parts and equipment. (McEwan and Weston, 2017). His target audience are either professionals of very skilled amateurs who can appreciate novelties in design and ride their bikes frequently (more than two times a week). Interestingly, this is an example of segmentation by ability and frequency of use, mentioned in Hollensen (2015) and Cavusgil, Knight and Riesenberger (2012). Unlike basic users, who might find special features on a bike "too fancy", expert riders might get excited about technical features that have not been previously implemented in a bike. Mountain biking is a lifestyle sport (McEwan and Weston, 2017), therefore, rider do not only ride frequently, but also do mechanics by themselves. An important group for the brand are those innovative riders who wish to differ from "mainstream" crowd, have more reliable and advanced bike that gives them superior riding experience. They view the bike as a status symbol.

Despite being in a very early stage, Norland Cycles aims to become a global brand. Though based in Finland, the owner does not aim at the Finnish market only. He explains that mountain biking is not the most popular sport there and "would die of hunger" there. Currently, key regions include Central Europe, the US and Canada, some Asian countries and Latin America, though Finland is an important country for design. Mountain biking is a global industry by itself since its products are similar everywhere and customers have similar expectations regarding performance, quality and needs, as well as features of the product and service (Cavusgil et al., 2012). They see themselves as a luxury brand, similar to a Rolex watch or Lamborgini. The goal of the owner is to sell bikes directly to customers, instead of having a regular bike shop. He justifies it by bringing an analogy to Lamborgini: "you do not buy one in a shop; instead you order them to build you a car by contacting the company directly". Figure 4 shows the journey of goals for Norland Cycles.

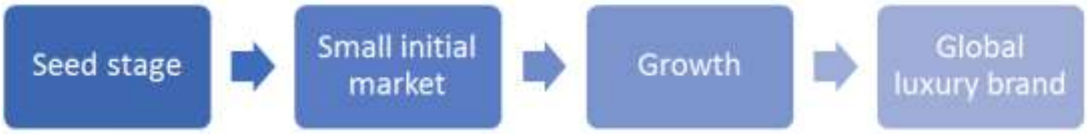

Figure 4. Goals of Norland Cycles

Mr. Werner mentions that he is using events to promote his brand and create networks. Those events include Eurobike or the Bikefest in Lago Di Garda, where a lot of representatives of mountain biking press, magazines and websites and other influential stakeholders attend. Moreover, he goes into high mountains: "I am building a legend. I am going to test the bicycle in some of the roughest mountain biking environments in the world and not everybody goes even above 3000 metres. This year we are going 5000 meters". This step is largely inspired by Felix Baumgartner's jump for Reb Bull.

The company is in the seed stage of development, when the idea is taking its tangible form and all efforts are directed to product development and launch. (Paschen, 2017; Churchill and Lewis, 1983). Indeed, all current efforts are directed at testing the prototype. It has been taken to Andes mountains (Chilean-Argentinian border) and has proven to perform well at heights over 4000 meters. The very first prototype has been tested by about 20 riders, professionals and enthusiasts, mostly riding downhill or while riding in urban environments. Searching for potential partners, distributors, as well as delivering business plans and making customer validation had been going on, which is typical for the seed stage. Throughout most of the time of its existence, the project has been run solely by an entrepreneur. Only recently, another person joined the project. The role of an individual is usually very significant at this stage since there are too few people to delegate to. (McAdam and McAdam, 2008; Churchill and Lewis, 1983).

Another name for the seed stage is the “Existence stage” (Churchill and Lewis, 1983) because the firm strives to not cease to exist. This stage is very demanding resource-wise, resources are spent on research and development, stabilizing product quality and scaling up. (Churchill and Lewis, 1983; Mac an Bhaird, 2010; Westhead et al., 2011). Lack of financing indeed remains the most critical problem in proceeding into a startup. The owner planned to start short series production of bikes, though scarce resources slow him down significantly. He had to be cautious with every step he made because any mistake would require him to invest more resources to fix it, throwing him back in the development process. This reminds the “Affordable Loss” principle, when an owner rather assesses what he can afford to lose rather than focusing on potential gains. The problem is aggravated not only by limited financing possibilities for firms in the nascent stage, but also that an entrepreneur might refuse some options. For example, Mr. Werner would have preferred to be the sole owner if he had not had problems with financing. This goes in line with the pecking order theory (POT) that entrepreneurs lean towards internal rather than external financing options. In addition, the unwillingness to give up ownership comes from ownership dilution (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011; Peavler, 2018). Shares mean decision-making power, and the entrepreneur admits that he would only give shares to very few people who have to be very competent people in the mountain biking market, preferably mountain bikers themselves. They have to be in a trust relationship with the owner. The reason for this is that he wants the decisions to be taken more dynamically and more efficiently. Competence is the key for stakeholders; incompetent stakeholders are more likely to make wrong decisions, which are very costly or even fatal for a company. The case summary is in Table 7.

Company name	Norland Cycles
Industry	Mountain biking
Product(s)	Mountain bikes for professional riders, the core product is frame with suspension shock, exhibits high performance, status and quality
Stage of business	Seed stage, prototype in the stage of testing and development
Key challenges	Getting funding to produce the first batch for sale

Table 7. Main case summarized

6.3.2 A

A is a UK-based producer of steel mountain bike frames. It started in 2011 by two mountain biking enthusiasts who studied in the same university and worked on another project together. (A, 2019)

This case was found through a search engine for "handmade mountain bikes in Europe" and A was one of the results. The company specialized in handmade customizable frames. They are a micro company with just two people on board. However, recently one of the founders has left the business in July 2019 (A, 2019a). This case illustrates how a micro firm went from seed into a startup, but is facing numerous challenges.

The founder describes himself as "Sole trader producing high-quality steel mountain bike frames". (A Interview 1, 2019) Their products include customizable mountain bike frames, complete bikes where a customer can choose components by themselves. In addition, they sell trail tools (to make and maintain biking trails), spares, frame kits (fork and headsets) and even complete bikes. They do not supply to any shop; neither have distributors (except for an agent in Japan). Instead, A sends orders directly to customers. (A, 2019b). Currently they aim to produce a cheap frame in UK and are making small custom projects. (A Interview 1, 2019).

Currently, A has only one person (A Interview 1, 2019), the founder, in the team because his partner left in July 2019. This is common for seed-stage companies. However, they are already selling their products to a small number of customers, thus it might be they are in the startup stage, aiming to go into growth. Nevertheless, they are facing a range of challenges. One of the main challenges is a long queue for building and a general lack of time. The company has a problem finding outsource production that would be sufficient desired quality. Finding cheap skilled labour could tackle the problem of lacking finances (an increase of sales margins) though it is a challenge in itself. Lack of finances in essence makes founders have a lower quality of life “not enough money to put food on the table”.

This case is an example of a domestic firm that has established products and is already starting to sell. Yet, it is hard to consider it a growth company because it is struggling with moving forward and acquiring a broader customer base. The build queues are long and the existence of the company is under question.

6.3.3 B

B is an example of a micro family business in assembling customized bike frames. It started in 1972 in Italy by a mechanic and a shopkeeper with 20 years of experience. His son, the current owner of a company, joined the company in 1981. All the brand’s products are son’s creation. Nowadays they mostly produce mountain bikes and racing bicycles, although portfolio also includes fixed-gear bicycles, trial frames and carbon frames. (BiciNews, 2011). The construction material includes such variety as steel, titanium, carbon, aluminum and even their mixes if a customer requires so. (B, 2014)

The brand follows the customization approach; bike geometries are tailored for the needs of all riders. Frames are produced in local Italian laboratories. Roberto is directly involved in the production process by supervising specialized welders and even doing some of the work himself, for example, by doing the final assembly of the customer’s order in his workshop. (BiciNews, 2011). He has been working for already 39 years (B Interview, 2019), focusing primarily on product quality rather than quantity. For being able to make “360 degrees in designing frames” he collaborates with local (Italian) welders, athletes and mechanical engineers (B, 2014; Cycloscope, 2019). His goals are congruent with his vision: building perfect products for every customer both athlete and amateur.

Although B is an established company (maturity stage), the owner still works alone on product development. B can be called a one-person company, although the owner relies on some external providers of service, such as welders and suppliers. (B Interview 1, 2019). His main challenge is to create products while being able to anticipate market trends. The owner considers creativity, product innovation and finances as necessary elements to solve those challenges.

Notably, the owner does not consider finances as a principal way of solving current challenges. Instead, he puts more emphasis on innovation and having a good overview of the market trends. Interestingly enough, he mentions large corporations having all the resources and “globalization killing the product”. (B Interview 1, 2019)

6.3.4 C

C is an Italian mini-boutique brand located in the north of Italy run by a sole entrepreneur. His products are frames for mountain and road biking which he makes exactly for the measures of customers (for example, certain angle, height, length). His primary customers are amateur bikers who are riding frequently.

His primary business goal is to be profitable enough so that he can quit his part-time job as a bike mechanic and fully dedicate himself to his business. Although he still serves only a small market in Italy, he is aiming to internationalize as well.

His current stage could be characterized as a startup. He already has products and some knowledge of customer segments, he is still “in the very beginning” working alone and being a part-time employer. Yet, he is willing to go into growth thus his main challenge is to start expanding his business and making it self-sufficient. This is not a growth stage yet, because profitability is more stable and entrepreneurs are normally doing more managerial tasks instead of doing all work by themselves. Finances play a very significant role in this challenge: they will work as an investment in marketing and advertising.

6.3.5 D

This company represents an interesting case in the mountain bike industry. It was found by a referral from the main case. It combines innovation, family business and offers an interesting insight into lifecycle theories.

D is a Swiss brand of carbon wheels that actually existed since the 1980s and 1990s when the MTB scene in Europe was still very nascent. Their three-spoke wheels were a sensational product of their time, winning numerous industry awards. (D, 2020) The company has been in hiatus for a while, until recently, when the current CEO decided to bring his father's business back to life. The development process for a new wheel took them three years. The difference with the prior collection is not only in material (transition from aluminium to carbon (Benson, 2018)), but also in broader market range, from MTB to road. (D, 2020)

The brand is aiming to redefine the wheel construction, shifting from traditional hub & spoke construction to tri-spoke monocoque wheel (when spokes are an integral part of the wheel and cannot be removed). They are focused primarily on enduro mountain bikes. Everything is made in Europe with a new carbon bonding technique, using methods ported from motorsports & aerospace industries (Benson, 2018) and is orientated to riders' needs (D, 2020). They are currently working a fully automated production line that makes producing wheels very lean and agile, shortening the cycle between design and first series production from months to several days. They state that 3D printed carbon has been a headline and D will be the first wheel brand who will bring that into the market (D Interview, 2019).

The grand goal of D is to give customers more freedom of choice and to "bring the industry into the 21st century" (D Interview, 2019). As their CMO mentioned in one interview, that industry had not been coming up with anything new, but rather iterated existing products. (Levy, 2017). They aim to create wheels for every taste and let customers design what they want to see and furthermore leave their creativity open-handed (D Interview, 2019). At the same time, they want their customers to never need to worry about their equipment, with their protection technology called Failsafe. They have done research among riders, and they are willing to accommodate the needs that had been previously neglected by traditional wheel firms. (Levy, 2017).

Currently the brand is in the stage of “build-up”: they are preparing for launch, and the team has grown to approximately fifty people (D Interview, 2019). This infers that a company is still a startup, but going into a stage of growth, when they start increasing sales and acquire a broader customer base. They aim to solve the challenge of opening better online stores and telling people what they want to actually know. Finances do play the role in overcoming the challenges, because they open new markets, which is a great investment which will not immediately start giving returns. (D Interview, 2019).

6.3.6 E

This case company (referred to as E) is different from others because it is a retailer. It was found via referral by the main case. The company is located in the United Kingdom. Most of the time the UK has been a part of the EU, until January 2020 (Barnes, 2020).

They are an independently owned group of cycle shops that has been operating since 1997. The shops are located in different cities in South England. They got recognized as one of the leading independent cycle retailers in the South of England for their great customer service and have even been awarded by the industry. In 2011 they started to cater more for the growing road cyclist segment by opening a specialist store. (E, 2019). They have a high level of expertise because all the personnel rides mountain bikes. The mechanics all have accreditation for repairing various kinds of bikes. The owner of the brand has solid experience in cycling starting in the late nineties. (E, 2019a)

Currently the owner has 5 retail bicycle shops in the UK and has a simple goal to still being successful and “still in business after 15 years”. According to the statement of the owner that he is “only halfway through my business life and progression” after he opened the business at the age of 19 (currently aged 36), this could infer that it is a growth stage, possibly late growth. Companies in the growth stage usually aim at maintaining profitability and having a sharper focus of opportunities. Yet, it still goes into the criteria of small business since there are 20-25 employees. (E Interview, 2019).

The current challenges are multiple., despite being an established brand. One of them is finding the right staff. The other one relates to pricing: smaller shops cannot charge prices as cheap as large discounters. The latter can even have some losses, but they keep alive because they are backed by big venture capital firms. To solve this challenge, brands and distributors need to understand the value physical bike shops have and bring to customers and offer lower margins to online retailers to increase the average sale price. This lead to the topic of financing. Surprisingly, the owner said that financing "does and does not play a role": it is a valuable tool for growing, but if one borrows money, the debt might backfire if something fails during the journey. Another important insight was that it is challenging to get funding due to risks in retail. He assumes that the situation might be similar in Europe. Though he had an experience of borrowing from a bank to open new stores, he is planning to remain the sole managing director. He recognizes that it "is not as easy as borrowing money for instant growth" and that he does not need "to pay bonuses to a board of directors or shareholders". (E Interview, 2019).

7 DATA ANALYSIS

The study is based on qualitative data. Thus, qualitative data analysis methods are applicable here. The type of data used in this work are interview transcripts from six cases, including the main one. This research is qualitative, though it does depart from theory on resources, effectuation and firm lifecycle theories. However, unlike in quantitative research, the theory just guides the research rather than determines it. Some assumptions are made beforehand, but they do not allow for complete structuring and explanation of the research problem. (Ghauri and Grønhaug, 2010)

In analyzing case studies, it is usual to look for commonalities and differences between cases. Ghauri and Grønhaug (2010) mentioned a case when an investigator studied the productivity of the sales force in a company by comparing the intensively two or three best sales representatives and two or three worst. By making calls with them and checking their stock, the researcher managed to identify patterns leading to high (or low) performance. (Ghauri and Grønhaug, 2010).

Figure 5 depicts the data analysis process. Phase 1 of the case analysis involved organizing each answer from cases (including the main case, marked “0” in Figure 5) in the respective field of questions. An Excel table was used to organize the data. For example, when a company was describing challenges, their answers were placed in the row with the label "challenges". Phase 1 included the descriptive stage as well. As it has been mentioned in Chapter 6.1 "Research design", descriptive stage contains two themes: “Financial Resources" and "Decision-making”. Those themes were marked in the Excel file with corresponding headings. While the answers of entrepreneurs were placed in their original form, with no or minimal editing, the questions in each row were shortened. For example, the question "How are you planning to utilize financial resources?" was coded as “Use of resources”. Analogically, the question on most important decisions regarding funding was placed into “Decisions vs funding”.

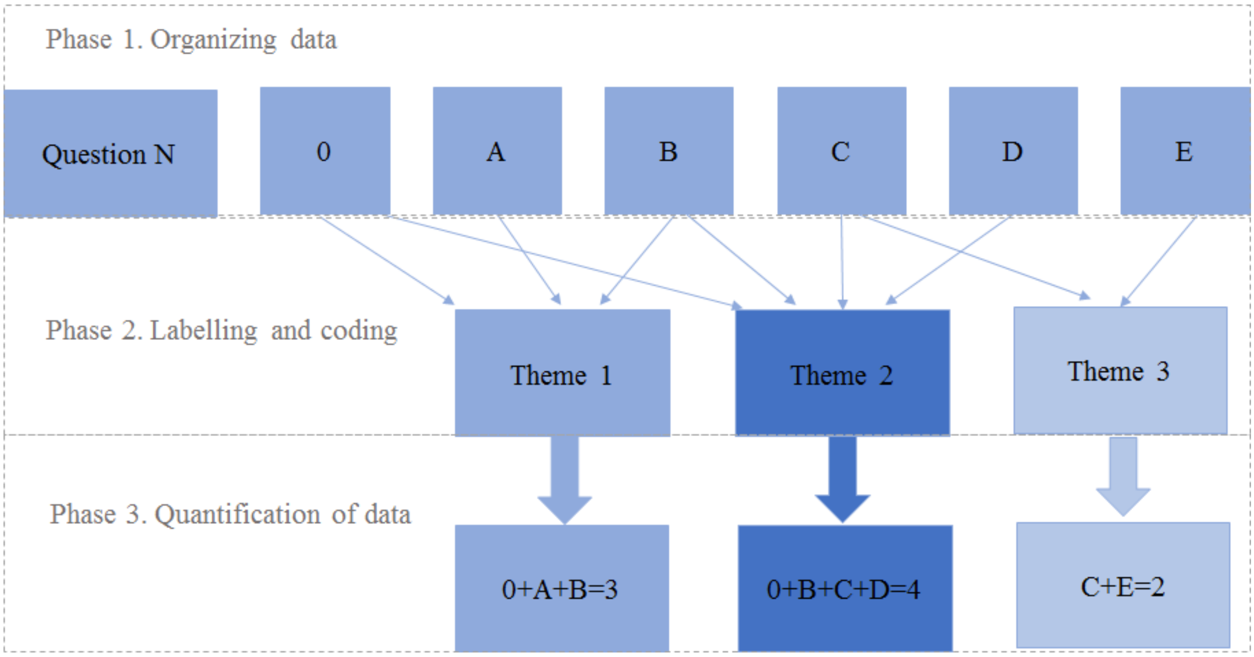

Figure 5. Data analysis process. Based on Ghauri and Grønhaug (2010)

Phase 2 in Figure 5 is the coding and labeling phase. All raw answers were analyzed and coded with contextually emerging themes. Those are common practices in summarizing large sets of data. (Ghauri and Grønhaug, 2010) For example, answers "I want to be a sole owner", or "I want to be fully controlling business" in the question about changing role in the company were all coded as "sole owner". In Figure 5 cases 0, A and B cited common Theme 1, while Theme 2 is cited by cases 0, B, C and D. It is worth noticing that a single case could mention several themes. Another important notion is that Figure 5 does not reflect the actual answers of cases, but is rather meant to get the reader acquainted with the analysis process.

Phase 3 involves counting frequencies of every theme mentioned. For example, in Figure 5 Theme 3 is cited only two times by cases C and E, while Theme 2 is the most frequently cited one. This is an example of the quantification of qualitative data. Ghauri and Grønhaug (2010) mention the use of quantification by counting the frequencies of concepts that emerged on a videotape. Summaries of themes and concepts mentioned can be found in Appendices 3 (exploratory) and 4 (descriptive).

7.1 Exploratory stage

As mentioned in the chapter "Case selection", the aim was to collect cases primarily in the mountain biking market, irrespective of whether the main market served by the brand or along with others (for example, road cycling or motorsport). All the cases concerned mountain biking, from producing frames, bikes, and components to retail.
Regarding *background*, four out of six cases (including the main one) were frame or full bike builders. One case makes carbon wheels for mountain bikes (a component builder), one was a retailer. Selling tangible products was another criterion, which all of the firms satisfied, including a retailer who provides both tangible products and services. Overall, such selection allows for a comparison between cases. The condition of choosing cases from EU or EEA was followed, however, there were two cases of UK brands. Though Brexit (UK's leaving of the European Union) occurred on the 31st of January 2020 (Barnes, 2020), the brands have an operating history when the UK was still an EU country. Although there could have been more countries of the EU in the sample, repetitions can show some patterns related to the external environment.

Current goals differ, though some patterns emerged. One of them could be named "*transforming passion into a business*", which is found between the main case and C. They are both in the very beginning stages, with C already having their own shop. They want to dedicate their lives to building mountain bikes ("to be able to live of this endeavor which makes me really happy" (NC), "make of this business profitable enough to become my only source of income" (C) with C stating that he is willing to leave his side job as a bike mechanic. Other brands in the sample are more advanced in their stage. E (the retailer) has been operating for 17 years, he just wishes to *continue* for the next 15 years. D and B are completely different in their business and stage of development, though in their goals they are focused on *product excellence* ("frame for an athlete and an amateur", "wheels for all taste). D goes even beyond that by wanting to disrupt the industry with its product "bringing MTB industry finally into the 21st century". A is rather focused on short-term problems (cost efficiency) and wishes to produce a cheap frame in the UK, his home country. The assumption of heterogeneity, that firms have different goals and thus might assemble resources differently goes in line with works of Sarasvathy et al. (2014), Jones et al. (2011), Alvarez and Busenitz (2001) and Foss (2011).

All of the companies fall into categories of micro- and small businesses. According to the European Commission (n.d.), a company is considered a micro-enterprise if it has less than 10 people in the staff. Four out of six firms fall into that category, three of which have only one person, and one (main case) having only 2. Companies with 50 and fewer people belong to a category of small businesses (European Commission, n.d.). One company, however, lies in between small and medium-sized one with 50 people on board and most likely will expand in size. Overall, the case selection criterion for firm size (micro or small) was satisfied. This is not surprising since 99% of EU firms are SMEs (European Commission, n.d.).

It would have been ideal to have collected only companies in the seed or startup stage, though this information had not always been accessible a priori. That is why a researcher had to rely on information about company size and on the entrepreneur's description of what stage of business they are in. The main case is still in the process of building prototypes ("developing concepts and the prototypes of the bikes"), which makes it the "youngest" of all. This goes in hand with the description of seed-stage as when an entrepreneur is occupied with research and development routines and preparation for product launch (Paschen, 2017). There are currently only two people working for NC, which is common for seed-stage companies. In the seed stage there are usually very few people (sometimes only one person) that there is almost no delegation of activities. (Churchill and Lewis, 1983).

However, not only seed stage companies can be very small in size. C is a one-person firm, but is more advanced in the stage. They already have defined products and are starting to sell. The owner states that they are still "in the very beginning". In the startup stage the idea is well-defined, though turning a prototype into a viable product remains a challenge. Product and market validation, as well as the implementation of marketing plans and preparation for commercial launch are crucial. Another important characteristic is the switch of an entrepreneur from being directly involved with the company. (Churchill and Lewis, 1983; Paschen, 2017; McAdam and McAdam, 2008). Because C is a one-person company, no delegation is visible. Although starting sales is more of a question for the growth stage, the market size in the startup stage is still very small and needs expansion. A similar situation applies to A: there is only one person on board (the other one has left), though they already have some amount of sales, though their orders are small and it is hard to call them a growing company since they are having long build queue. However, another startup, D describe that they are in the “build-up”, has hired about 50 people. Nevertheless, they are still preparing to launch their product which makes them a startup.

Another example of small business at advanced stage is E. They are an established business “middle of the business journey” which has existed for 17 years, has only “20-25 people”. They wish to continue their business and be profitable. This company might be in the growth stage: they have already validated their products and market and have become a profitable entity (Paschen, 2017). They need to focus on the improvement of their commercial skills as well as have opportunities focused sharply (Fraser et al., 2015). At the same time, B is also an established business, though run by a sole entrepreneur for 39 years. They are rather a mature company, which was not originally planned in the sample. This case shows that some companies in the sample choose “born small, stay small” approach throughout their timeline.

Though every case had its set of challenges, those challenges can be grouped by themes. This process is called categorization, when units of data are labeled with codes (Ghauri and Grønhaug, 2010). The question about challenges was asked to lead an entrepreneur to discuss what are the key issues he or she is facing. This was done for two reasons. First of all, to lead and entrepreneur to speak and get possible information on resources. Secondly, challenges are an additional indicator of the firm lifecycle stage. According to Churchill and Lewis (1983), entrepreneurs often consider the lack of resources as their main challenge.

The questions of *growth and internationalization* were raised by Norland Cycles and C. The former emphasized placing the first for-sale batch into the market, while the latter mentioned expanding sales beyond its home country. Norland Cycles, as well as A have mentioned *production* challenges. While the former just mentioned starting to manufacture his prototypes for the first limited series, A has mentioned overall lack of time and long building queues for orders. Having reliable *partners* emerges as another challenge. This was manifested by not finding the right type of subcontractor to produce desired quality (A) or by just generally finding the right staff for a small chain of shops (E). Another group of challenges is related to *market and marketing channels*. This is as broad as making products following market trends (B and 36-inch bikes) and dealing with particularities such as retail market and discounting. Small bike shops, according to E owner, find it nearly impossible to compete on price with large discounters which are buffered by VC firms and can afford to lose millions of € each year. Therefore, small businesses have to compete with big retailers. D is also having struggles with the traditional retail market by wishing to "to cut them out to get better prices to customers." The latter two are cases of struggles of small companies when retail favours big corporations. Although resources were not named as challenges by so many entrepreneurs, their challenges are congruent with theories on lifecycle: a company in the seed stage is directing efforts to product development, while a startup is ready for a product launch. This information made it possible to map out the companies.

Questions on overcoming challenges were raised to see what the companies see as ways to resolve their current issues. The underlying assumption of the researcher was that finances will be mentioned in any way, whether as a direct solution to all challenges or just as one of the tools in a pack. Two respondents mentioned financial resources directly: the main case needed them primarily to set off the production, while C needed them for advertising and expanding business. Three cited them as one of the tools, but not as the main solution. For B finances, "fantasy", study and time are a key to respond to market needs. E mentions finances in the context of pricing in small physical bike shops, that brands and distributors need to offer lower margins to online retailers to increase the average sale price. A's topic of finances passes on as margins: they are seeking to find cheap and quality labour in the UK and selling frames for higher prices.

Notably, not all entrepreneurs focused on finances as a tool to solve challenges. The question about the role of finances was asked to direct the conversation, thus being able to get a more accurate picture of the role of finances in solving challenges. The most common view on finances was a tool for development. Money helps in launching production (NC), marketing and advertising (C) and works as an investment to new markets (D). The other set of responses could be characterized as "money is not the most important, but necessary" or "money is helpful but can backfire". In the former case B states that money is necessary, though it does not help if a firm does not have either innovative products or enough product knowledge and experience. In the latter case, E comments that borrowing finances can help a lot, but if business turns unsuccessful, it can become a burden. When asked about finances, BTR has mentioned that "Not enough money to put food on the table", seeing finances as a part of a bigger problem or a challenge in itself.

7.2 Descriptive stage

This stage offers more specific questions regarding research objectives. The questions are centered around resources, decision-making, lifecycle development and external constraints. This stage is aimed to answer research questions "How resource demands differ as the firm progresses" (RQ1.1) and "How decision-making modes change as firm progresses from seed stage onward" (RQ1.2).

Regarding **the use of financial resources**, the most common theme emerged was related to *production and supplies*. This was common for the prototype stage (NC) but also for an established business (A) who wanted to use more tools to build in-house and stop depending on subcontractors. Patents were also named, since they are expensive. NC had both production and patent. D was focused on patents because they wish to disrupt the market. *Marketing and advertising* was mentioned once by C, but going hand-in-hand with processes. In the literature review (Foss, 2011; Alvarez and Busenitz, 2001) it was mentioned that entrepreneurs indeed do use resources differently, which has shown in the case. Notably, similar themes emerged, though there had not been any identical context.

Foss (2011) and Alvarez and Busenitz (2001) mention that entrepreneurial firms assemble resources differently. However, questions on **possible sources of funding** gave surprisingly homogenous results. Four out of six respondents directly mentioned that they rely solely on their *savings* in all the three stages of companies (seed, startup, growth). The retailer admitted that he took a bank loan to open shops, but is relying now on his own savings and is being reluctant to get new loans. A's answer "Lottery" shows some *skepticism* on getting funding in general. Indeed, financing a venture with personal savings could be considered the most common practice. Statements such as "I financed 100% by myself and advice people to do the same" show that entrepreneurs tend to be more self-reliant. Although some of them have had experience with loans, still not wishing to rely on external parties is prevalent. This might be a question of either an ownership dilution or simply risk aversion.

Regarding **changing needs for resources**, only three cases gave a reply (NC, C, D), two of which said that they wish to get more resources. Only D mentioned that as a company grows they get financed by banks. Participants did not have an exact clear idea of how their demands will change, although one of them noted that with time firms can rely more on banks. Yet, firms "wishing to get more resources" might have meant that they will always need some resources to invest. This intersects with effectuation theory, that entrepreneurs are rather focused on what is "here and now" (non-predictive logic) with the resources they have at the moment (Bird-in-Hand) and rather shaping reality with their own actions (Pilot-in-the-Plane). Their final goals can sometimes be unknown in the beginning. (Sarasvathy et al., 2014; Maine et al., 2014).

One of the original questions was "What impact will it make if you do not get resources?" based on an assumption that failure to get resources is more fatal for early than later stages (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011). Attitude to cases of not getting resources were surprising, also mentioned only among the three cases. For example, NC claims that not getting funding "will not kill the business, bit will make all the processes much *slower"*. C does not consider *the closure of business* a disaster and is willing to close it if it stops bringing profits. D overall shows a more optimistic view on getting funding and considers "lies very cheap on the street for businesses which means, they just have to pick it up with a great story." In other words, out of respondents not getting resources did not have as dramatic effect as initially presumed, though by a company in the seed stage it is clearly seen as a significant challenge.

The question about decisions for the venture and for funding was based on both effectuation theory and the study of entrepreneurial decisions of Maine et al. (2015), which are presumably led by effectuation principles. Some of them were very pragmatic, such as choosing the right type of frame model for production and exhibition (NC), time spent building each frame and commercialization (C) and following the main goal. Decisions regarding funding were understood differently. The main case concerns all the possible doors for entering into commercialization and deciding which of the European Union countries offer more prospects for financing the business, especially taxation. Commercialization was mentioned by C as well, though the owner claimed that he has no prospects to get public funding. A is considering whether it is worth to continue business at all “Is it all worth it?”, whereas D just focuses on its 2020 goal to become the first company that makes carbon-printed wheels. Question on decision making was mostly a combination of naming constraints and acting upon them. In the study of Maine et al. (2014) constraints were related to effectuation decision mode, whereas high perceived (and real) external constraints were related to causation. One company mentioned *time* as the main constraint, especially when it comes to testing of a product. The only way to act on it was to find a balance between being frugal with time right now and thinking long-term. The question about changing roles in the company was based on firm lifecycle theories: the goals become more defined and entrepreneurs switch more to managerial roles also due to the growth of a company in personnel (McAdam and McAdam, 2008). This was true to some extent for firms in the sample. The role in the company will change but not for everyone. A’s owner is considering taking more of *a managerial role* rather than being involved in the production. A similar pattern is seen in E, where the owner is “making sure everything is running smoothly”. Overall step aside is common in the stage of growth primarily because the business looks more self-sufficient. As the owner of D has mentioned, “it’s definitely more a role of a father looking at the kids at university rather than when they are just born”. However, the main case and C still would like to be *in charge of all decisions*, with the latter wanting to stay as a sole owner as long as it is possible. Regarding the effect of decisions, mostly respondents left this question unanswered, though two of them mentioned that decisions are *crucial* and some of them are very delicate and require consultation with experts. This question was based on prior studies of Yazdipour (2011) and Frazer et al. (2010) that entrepreneurial decisions do have an effect on the success of obtaining financing.

8 DISCUSSION

The interviews had brought some interesting insights, thus is it worth assessing how they had led to answering to research questions and research objectives.

8.1 Changing resource demands versus firm lifecycle stage (RQ1.1)

Regarding the first sub-question “How resource demands differ as the firm progresses?” (RQ1.1) resources indeed appeared to be an important topic. Yet, unlike in RBV that considers them as determining factors of firm’s success and competitive advantage (Kozlenkova et al., 2014; Kraaijenbrink et al., 2010), they were not cited as the determinant of success by firms. Shane (2016), Alton (2016) and many others have cited capital as the main challenge, it was not named as one by companies. In some cases, the challenges were very specific, like producing prototypes, finding quality suppliers in the home country, advertising to expand, improving products, in some was just continuing to be a profitable business. Nevertheless, resources were seen as rather a tool to overcome challenges. Pre-startup and startup mentioned them as something that directly solves their challenges. Established companies considered them as “one of” the components, though not the main. Yet, in two growth-stage companies, finances were not so much figuring as a tool. The role of resources is rather assisting than direct. The role of resources in solving challenges seems to be stronger for companies that are changing in their stage, for example going from seed into a startup or from startup to growth. This means that their role might increase significantly when a company is facing a great change, whether dictated internally or by a market. However, when a company stays in hiatus, as seen in the case of UK frame producer, finances are not mentioned, but rather more quality challenges emerge. In the latter case financial resources might be even a part of a challenge than its solution.

Churchill and Lewis (1983) mention that lack of resources has the most drastic effect in the earliest stages: they require a lot of investment which is hard to obtain, run out of capital and soon close their business. Not getting resources received a few answers and very mixed evidence. For example, a seed-stage company stated that a lack of resources will not kill the business but would significantly slow it down. However, a startup company saw the closure of business as rather a sensible step than a failure. This might be due to the fact that the startup company owner had a side job of a bike mechanic, while seed-stage one was directing all the efforts to the company. The question of attachment to business arises. A start-up entering growth mentioned that not getting resources is not a problem because it is relatively easy to obtain them. “Money lies very cheap for businesses” could refer to the role of the environment in the venture.

The difficulty of getting financing for early stages indeed reflected in the interviews, which could be one of the reasons why companies decided to self-finance. This goes in line with Pecking Order Theory, mentioned in Fraser et al. (2015), that firms often suffer from information asymmetries and would be costly choosing internal financing because external options are perceived as being too costly and too difficult to get. Ownership dilution also persists there, in the form of unwillingness to pay to and consult several shareholders. This was very explicit evident in one family firm. (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011; Peavler, 2018).

Mac an Bhaird (2010) mention that firms need different resources at different stages of their firm lifecycle, which has become an underlying assumption for RQ1.1. Although the resources are still the same, their use changes. Seed stage was using resources for production, startup and growth used them for patents, production and marketing. Notably, the uses overlapped for different companies, which was primarily dictated by their objectives. The companies themselves, though did mention that their needs might change as they grow, but had not an exact idea of how. Only one of them mentioned the possibility to be financed by banks. One of them mentioned that they might need more resources, which is explainable: the firm organization gets more complex and more responsibilities to emerge as a firm progresses in its lifecycle (McAdam and McAdam, 2008). Lack of clear vision infers some effectuation in entrepreneurs: they are rather focused on what is “right here, right now” and what they can do about it.

Thus, resource demands indeed do differ stage by stage, since they are directed at different things, for example, working on the first series of prototypes might require different investment than advertising. Yet, the size of investment differs rather by personal context. A more intensive need for resources is expected when a company is facing either transition between stages or is faced in from the big leap, as it happened with three cases. This could be a proposition for a correlational study. One startup has raised the question of looking at companies in hiatus and how their resource demands change.

8.2 Decision-making versus firm lifecycle stage (RQ1.2)

Regarding the change of decision-making modes with the progression of the firm along the cycle, lifecycle theories (Churchill and Lewis, 1983; McAdam and McAdam, 2008) state that the role of entrepreneur indeed changes: their competences play less role, entrepreneurs shift to doing more administrative activities. This difference has been observed with some but not with all firms: two firms that are both in the startup stage mentioned that they would switch to administrative and managerial tasks rather than directly being involved in the production. One company going from a startup into growth mentioned that it is “definitely more a role of a father looking at the kids at university rather than when they are just born…I need to step away a bit to always have the overview”. Managerial tendencies are also seen for a mature company, when the owner is “making sure everything is running perfectly”. Yet, not all firms follow the same pattern: some consciously choose to stay small (“I do not want to expand, I want to stay as a sole owner”), thus they retain many behavioural features of the seed stage. One startup and one established company mentioned that they wish to control their business solely.

The change of cognition is seen in attitude to obtaining resources. Two companies in the early stages saw not getting resources as a challenge, though a company going into growth considered that this problem is not even relevant: “money lies very cheap on the street for businesses”. The former is an example of Lemonade approach, when a firm is not afraid to change or even abandon their plans. However, the latter is an example of Crazy Quilt, when a firm seeks for strategic partnerships by pitching the idea to potential stakeholders. However, the company that is mentioning that resources are easily available, sticks very tightly to the goals, which does indicate some causation. (Sarasvathy et al., 2014). Pilot-in-the plane approach was seen to some extent among all firms, but especially for a firm in the seed stage that “looks for all the possible doors for entering into commercialization”.

8.3 Decision-making in different lifecycle stages versus financing (RQ1.)

Entrepreneurial cognition can significantly affect obtaining strategic financial resources, according to the literature review (Paschen, 2017; Yazdipour, 2011). Entrepreneurs have their biases, such as ownership dilution and overall perception of external financing as difficult to obtain. (Mac an Bhaird, 2010; Fraser et al., 2015; Westhead et al., 2011).

From the given sample the tendency of self-reliance in terms of financing is surprisingly homogenous: almost every company used personal funds. There are several reasons for that. One of them is that external financing is perceived as just difficult to get. Another reason was the overall lack of trust in external financing providers, such as banks. Besides, entrepreneurs feared debts and obligations. Notably those views were prevalent across stages. A startup stated that the less people see information (patents) of your company, the better it is for business. Another start-up just did not want to get into debt. Some just do not see that they can receive it, for example, that it is difficult for UK small businesses to get funding, thus assessment of the business environment also takes place. In this way entrepreneurial decisions can affect negatively obtaining funding simply because they are not willing to sacrifice their autonomy. Fear to debts might indicate some uncertainty in the operations, particularly not being able to pay them off. This also indicates uncertainty in the environment: not being able to get enough customers to generate sales.

Entrepreneurial cognition can affect obtaining financing also in a positive way. One startup showed opportunism, that resources are available at all fronts nowadays, businesses need to just pick them with a good story. The importance of own decisions is undoubtedly stated in all the interviews. The main case has been willing to seek for experienced people for counselling and advice. Those can indicate some causation, specifically by researching and preparing a good sales pitch. The summary of the findings is depicted in the Table 8.

Research question	Answer
RQ1. How can entrepreneurial decision-making in pre-startup stage affect obtaining strategic financial resources?	Entrepreneurs can either catalyze or inhibit their chances. Usually, the lack of trust, uncertainty, ownership dilution and biases decrease the chances of entrepreneurs to obtain external finances. Yet, an opportunistic approach and willingness to network do increase entrepreneurs' chances to get funding.
RQ1.1 How resource demands differ as the firm progresses?	Different firms need different resources. Firms in the earliest stages (seed and startup) are more likely to see resources as something that directly solves their challenges. The demand for resources is strongest for companies that are facing drastic changes, mostly transitioning from one stage into another. When a company is stuck in one stage, finances become rather a part of a challenge than a solution.
RQ1.2 How decision-making modes change as firm progresses from seed stage onwards?	The role of an entrepreneur indeed changes from one directly involved in every process (seed) to more of a manager (startup, growth) and purely owner. Firms that are "born small stay small" follow the patterns of the seed stage (since there is only one person). Obtaining resources for the seed stage companies is seen as a challenge. Their response follows the Lemonade approach (using changing environment) and Bird-in-Hand (using what one possesses). Yet, for the growth stage it is rather an option, and they use the Crazy Quilt approach (pitching idea to different stakeholders) more frequently. All the small firms use Pilot in The Plane approach, but it is most striking for the seed stage. Some shift to causation is seen in the growth stage in the context of convincing investors.

Table 8. Answers to research questions

9 CONCLUSIONS

This work was an attempt to use theories on entrepreneurship, resources and lifecycle theories for solving practical challenges. The theoretical framework of this study was adjusted to outlined practical problem. The themes studies were international entrepreneurship, with the focus on effectuation theory and resource-based view, firm lifecycle theories and entrepreneurial financing. Entrepreneurship gave insight into the phenomenon at hand. Though in the case described, entrepreneurship does refer to the creation of firms, but the concept itself is much broader: it is about recognizing and creating opportunities and acting on them. Key characteristics of entrepreneurship are innovation, risk-taking and proactivity.

In the field of entrepreneurship, opportunity recognition was the most prominent topic. Creation and recognition of opportunities was visible in all entrepreneurial cases (for example, a biking enthusiast decides to turn his hobby into a business). Opportunity recognition is the key concern of effectuation theory. The theory is based on the notion that entrepreneurs make their decisions fundamentally different from managers of large corporations. Effectuation principles involve leveraging currently available resources to their full potential (Bird-in-Hand), estimating what one can lose (Affordable Loss), creating networks and partnerships (Crazy Quilt), treating changes as opportunities (Lemonade), and being in charge of the outcome (Pilot-in-the-Plane). Effectuation is contrasted with causation, a goal-based decision-making approach that involves careful planning, predicting future and analysing the situation. This theory helped to gain an insight on how entrepreneurs think in regards to their venture. This information gave an understanding of entrepreneurs' answers. Causation was also not excluded, since it can be used alongside effectuation.

Effectuation theory explicitly mentions assembling resources. Also lack of capital is a great challenge both for the main case and for the majority of entrepreneurial firms. Resource-based theory or resource-based view (RBV) assumes that the success of the firm (sustained competitive advantage) is largely determined by the possession of strategic resources. Those resources should have certain characteristics (VRIO framework): be valuable, rare, imperfectly imitable, and exploitable by the organization. Although RBV’s notion is completely logical on the surface, it has several serious limitations: lacking managerial application, empirically untestable and has too overly inclusive definition of resources. The latter had led the researcher to focus solely on financial aspects, otherwise, the clarity of this work will be compromised.

The challenge of using effectuation theories and RBV lied in the very nascent stage of the case firm. All firms have started from just an idea; they are not static entities. Firm lifecycle theories help to see how a firm develops. The most frequently cited work of Churchill and Lewis (1983) was used, together with more modern works (Paschen, 2017; McAdam and McAdam, 2008). Stages differ by degree of involvement by an entrepreneur, goals, challenges and organizational structure. In the seed stage the involvement of an entrepreneur is very high (because he or she is alone or has very few partners) and a very simple organizational structure. Goals include research and development (e.g. building prototypes), assessing idea feasibility and capital demands. The main challenge is not ceasing in existence, because often entrepreneurs lack own resources and have low chances to get them externally. In the startup stage the prototypes are already made, and processes of product and market validation are starting. Preparation for commercial launch is one of the key concerns of the startup stage. Often, though not always, more people enter the company and more tasks emerge, thus an entrepreneur takes more managerial role in the firm. As the firm moves into growth stage they already have certain market size and have captured certain customer segment. At this point firms need to keep profitable and keep a better focus on opportunities. Notably, in growth-stage firms have a much wider range of opportunities for funding. This information created assumptions: that entrepreneurs need to switch their decision-making principles due to changing context and that resource demands indeed might change since the goals are different.

The need to study entrepreneurial financing was justified by the following factors. First of all, the case firm was struggling with a lack of capital. Secondly, lifecycle theories mention that a wider range of options becomes available for entrepreneurs as their firm grows. Thus, the need to connect the firm lifecycle stage and financing became evident. Thirdly, the reason why entrepreneurial financing has been studied in academic literature was that entrepreneurial firms are very crucial for the economy, since they bring innovations, economic growth and create jobs. However, many businesses close when capital runs out. There is a wide range of entrepreneurial financing: internal, debt financing, equity financing and emergent forms, such as crowdfunding, accelerators and incubators. Internal financing is largely used in the seed stage, except for retained profits which are common for growing firms mostly. Debt financing (banks mostly) and equity (venture capitalists and business angels) are rather common for growing firms, although nowadays business angels also work in with startups. Yet, seed-stage companies have very limited options very few business angels work with seed companies. However, seed and startup stage companies can rely on alternative forms of financing, such as crowdfunding (donation and some forms of rewards-based), accelerators and incubators. Each form has its advantages and disadvantages, which can affect the decisions of entrepreneurs. Although the financial climate for establishing business is friendlier than ever before, firms still face a lot of challenges. Some of them come from entrepreneurs themselves: ownership dilution and information asymmetries. Those findings give cues on how entrepreneurial decision-making can affect getting financial resources.

Regarding the main research question of this work (how entrepreneurial decision-making in the pre-startup stage can affect obtaining strategic financial resources) two scenarios emerge: negative and positive. In the former an entrepreneur has a barrier regarding trusting external finance providers in general. For example, entrepreneurs are very protective of their intellectual property and do not wish other parties to see their patent papers. Intellectual property protection is a common issue in crowdfunding, but not limited to it (Pichler and Tezza, 2016). Loss of autonomy, which goes in hand with ownership dilution, is a great risk for entrepreneurs, thus, they often prefer to not deal with external finance providers at all. They consider it burdensome to consult every decision with a board of shareholders or be obliged to pay debts. In addition, seeing external financing as more difficult to obtain prevents them from trying to contact investors altogether. In the positive scenario an entrepreneur overcomes fears, and takes more of Crazy-Quilt approach by expanding his or her network and by preparing good sales pitch. Looking for “every possible door” can increase their chances. Nevertheless, entrepreneurs might send wrong cues to investors (whether crowdfunding audience or VC) which can affect the level of trust negatively.

Regarding resource demands, they differ firm-wise, but the role of resources changes. Resource-based view in this case overestimates the role of strategic resources. Mostly they are seen as tools in package rather than the key success factor. Yet, in the early stages (seed and startup) they are more responsible for directly solving challenges, like being able to build prototypes, buy new machinery or advertise. This goes in hand with the notion that early stages are the most fundamental, and, therefore most demanding ones. This is equivalent to establishing a carcass of a building before going into actual construction. The demand for resources might be increased when entrepreneurs go between stages. Yet, in stagnation period, when advancement does not happen, resources are seen rather as part of challenge than a solution.

Regarding the change of decision making modes throughout the stages there is a lack of consistent pattern even in the sample. For example, the use of effectuation methods prevails, though their intensity changes. Firms in the seed and startup stage were found to use the Lemonade approach (using changing environment) and Bird-in-Hand (using what one possesses). Yet, for the growth stage it is rather an option, and they use the Crazy Quilt approach (pitching idea to different stakeholders) more frequently. All the small firms use Pilot in The Plane approach, but it most striking for the seed stage. The main case mentioned that he would continue making efforts to make the business run, some shift to causation is seen in the growth stage in the context of convincing investors. The role of an entrepreneur indeed changes from one directly involved in every process (seed) to more of a manager (startup, growth) and purely owner. Notably, effectuation in the pure form did not exist in either of the companies, though all of them had some extent of causation. For example, one company had set a specific goal for launching their product. Though companies were myopic in how their demand for resources change, they were all driven to their respective goals. This is not surprising: most of the businesses would not have started in the first place.

9.1 Theoretical implications

This work has attempted to combine entrepreneurial cognition, entrepreneurial financing, resource-based view, and firm lifecycle theories. Prior studies have touched upon either of the subjects. For example, Paschen (2017) described crowdfunding and different firm lifecycle stages, but she focuses primarily on one form of financing. Maine et al. (2015) do describe effectuation and causation decision principles in their longitudinal study of the biotechnology sector, though they do not focus on progression through stages but rather assess every decision. Mc Adam and Mc Adam (2008) do mention the progression of the firms in an incubator, but they are primarily focused on firms within an incubator. Yazdipour's (2011) work includes behavioural aspects in entrepreneurial financing, but it does not connect effectuation theory and mentions the firm lifecycle very briefly.

This work can serve as a starting point for studies of the progression of entrepreneurial decision making though firm lifecycle stages and its relation to the success of getting financing. This can bring more integrity into the field and make existing weak links tighter. This work has a range of underlying assumptions that can be empirically tested through correlational study:

1. Entrepreneurs use more causation in later stages compared to earlier ones
2. Causation is positively related to success of obtaining financing
3. As the firm advances in the stage, the needs for external resources become smaller
4. The demand for resources is going downwards, but the availability goes upwards, thus there is an intersection point when their demand is equal to supply
5. Each effectuation principle has different lifespan throughout the firm cycle

Another important notice of this work is that firm lifecycles are not going as linear as theories suggest. One case firm has experienced "resurrection", which does not go in line with the common "birth-growth-maturity-death" narrative. Though it is mentioned that firms do not always go linear in their cycle, the subject of non-linear lifecycle is still under-studied.

The context of firms in the extreme sports market has generally been understudied. This work can serve as a platform for this specific market. Moreover, this work awakens the topic of firms that follow "born small, stay small" pattern. The topic of micro-firms has been raised as well.

9.2 Managerial implications

This work brings some practical value as well, primarily for the main case company, but also for other stakeholders. Firms, especially those recently starting, might see what are the common problems faced by other firms and how to tackle them. For an individual entrepreneur the value would be to see how their own decisions might affect their own success of a venture. For example, they can either enhance certain behavioural mode of effectuation. For example, they can start using the Lemonade approach if circumstances turn in not favourable direction. Crazy Quilt approach might help to create better connections with industry. At the same time, they can use causation and stay more focused in choice of opportunities.

It was noted from the sample that mountain biking firms have some biases regarding entrepreneurial financing. Specifically, it refers to the overall perception that financing is much more difficult to get that self-financing and that they cannot trust any investor. This work made a comprehensive review of financing available. Some of the companies have serious concerns, such as patents, thus the choice of financing can be made in accordance with own preferences.

9.3 Limitations

Despite the novelty and overall practical direction, there are certain limitations to this work. First of all, the context of this work is in a very niche market of mountain biking. This is a relatively small segment of all extreme sports available. Secondly, the selection of cases was based on similarity to the main case, which automatically limits the sample. Due to the low response rate among case companies, the sample occurred to be quite small. In a qualitative study the size of the sample is not as critical as in quantitative research, though with larger sample more patterns would have been outlined.

REFERENCES:

A (2019). About BTR. [ONLINE] Available: https://www.btr-fabrications.com/family/about/ [Accessed 12 November 2019]

A (2019a) The End Of My Era [ONLINE] Available: https://www.btr-fabrications.com/blog/the-end-of-my-era/ [Accessed 14 November 2019]

A (2019b) Are there any BTR distributors? [ONLINE] Available https://www.btr-fabrications.com/support/faq/btr-distributors/ [Accessed 16.11.2019]

Alton, A. (2016) 7 January. The 8 Biggest Challenges for New Entrepreneurs. *Entrepreneur*. [ONLINE] Available: https://www.entrepreneur.com/article/254721 [Accessed 25 July 2018]

Alvarez, S., A., Busenitz, L., W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, vol.27:755-775

Arend, R. J., Lévesque, M. (2010) Is the Resource-Based View a Practical Organizational Theory? *Organization Science*, vol. 21 (4): 913–930

B (2014) BRESSAN ROBERTO. [ONLINE] Available: https://bressanbike.it/index.php [Accessed 11 November 2019]

Barratt, M., Choi T.Y., Li, M. (2011) Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management*. vol.29 (2011): 329–342

Barnes, P. (2020) 5 February. Brexit: what happens now? *BBC News* [ONLINE] Available: https://www.bbc.com/news/uk-politics-46393399 [Accessed 7 February 2020]

Benson, C. (2018) 25 January. Spengle Carbon says ‘spokes suck’, spins up tri-spoke wheels for enduro. *BikeRumor*.[ONLINE] Available: https://bikerumor.com/2018/01/25/spengle-carbon-says-spokes-suck-spins-up-tri-spoke-wheels-for-enduro/[Accessed 18 December 2019]

BiciNews (2011) 15 February. Bressan, l'arte del vero made in Italy. [ONLINE] Available: https://bici.news/news/bressan-l-arte-del-vero-made-in-italy-1023900/ [Accessed 3 January 2020]

Brooks, C. (2013) 1 April. What is Venture Capital? *Business News Daily* [ONLINE] Available: https://www.businessnewsdaily.com/4252-venture-capital.html [Accessed 6 February 2018]

Bryman, A., Bell, E. (2011) *Business Research Methods.* 3rd edition. Oxford University Press

Cavusgil, S. T., Knight, G., Riesenberger, J.R (2012) *International business: the new realities*. 2nd edition. International edition. Pearson Education

Churchill, N.C., Lewis, V. L. (1983) The five stages of small business growth. Gumpert, D.E. (eds.). Growing Concerns. Topics of particular interest to owners and managers of smaller businesses. *Harvard Business Review*, May-June, pp.30-50

Cycloscope (2019) 7 November. 35 custom bicycle frame-builders: the world's best handmade touring bikes. https://cycloscope.net/custom-bicycle-handmade-bikes-framebuilders [Accessed 11 November 2019]

D (2020). The Spengle Story. SPC Technologies AG https://www.spengle.com/the-spengle-story/

Dudovskiy, J. (2019) Snowball sampling. Research Methodology. [ONLINE] Available: https://research-methodology.net/sampling-in-primary-data-collection/snowball-sampling/ [Accessed 18 May 2019]

Duxbury, T. (2012) *Towards More Case Study Research in Entrepreneurship. Technology Innovation Management Review*. March 2012

E (2019). About Us. [ONLINE] Available: https://www.mountainmaniacycles.co.uk/about-us/ [Accessed 18 December 2019]

E (2019a). Home. [ONLINE] Available: https://www.mountainmaniacycles.co.uk/ [Accessed 18 December 2019]

Etula, S. (2017) April 13. Nordic Guide to Finding an Angel Investment. FiBAN – Finnish Business Angels Network. ISBN 978-952-68334-1-5 (PDF)

European Commission (n.d.) What is an SME? *European Commission.* [ONLINE] Available:https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en [Accessed 9 August 2019]

Foss, N.J. (2011) 23 January. Entrepreneurship in the context of the Resource-Based View of the firm. *SMG Working Paper No. 8*

Fraser, S., Bhaumik, S.K., Wright, M. (2015) What do we know about entrepreneurial finance and its relationship with growth? *International Small Business Journal,* Vol. 33 (1):70 –88

Ghauri, P., Grønhaug, K. (2010) *Research Methods in Business Studies*.4th edition. Pearson Education Limited.

Gordon, E.D (2017) 2 August. 5 Challenges Facing Young Entrepreneurs (and How to Overcome Them). *Goalcast*. [ONLINE] Available: https://www.goalcast.com/2017/08/02/5-challenges-that-face-young-entrepreneurs-and-how-to-overcome-them/ [Accessed 13 October 2018]

Hathaway, I. (2016) 1 March. What Startup Accelerators Really Do. *Harvard Business Review* [ONLINE] Available: https://hbr.org/2016/03/what-startup-accelerators-really-do [Accessed 3 February 2018]

Hayashi, P., Abib, G., & Hoppen, N. (2019). Validity in Qualitative Research: A Processual Approach. *The Qualitative Report*. 24(1): 98-112

Hecht, J. (2016) 19 July. Debt vs. Equity Financing: Which Way Should Your Business Go? *Entrepreneur* [ONLINE] Available: https://www.entrepreneur.com/article/278430 [Accessed 4 February 2018]

Hollensen, S. (2015) *Marketing Management. A relationship approach*, 3rd Edition, Pearson Education Limited, Harlow, UK

Jones, M.V., Coviello, N., Tang, Y.K. (2011) International Entrepreneurship research (1989–2009): A domain ontology and thematic analysis. *Journal of Business Venturing*, vol.26 (2011): 632–659

Kiva (2018) What is microfinance? [ONLINE]Available: https://www.kiva.org/microfinance [Accessed 18 September 2018]

Kozlenkova, I.V., Samaha, S.A. and Palmatier, R.W. (2014) Resource-based theory in marketing. *Journal of the Academy of Marketing Science*, no. 42:1-21

Kraaijenbrink, J., Spender, J.-C., Groen, A.J. (2010) January. The Resource-Based View: A Review and Assessment of Its Critiques. Journal of Management, Vol. 36 No. 1:349-372

Levy, M (2017) 6 December. Spengle's One-Piece Carbon Enduro Wheels - First Look. *Pinkbike* [ONLINE] Available: https://www.pinkbike.com/news/spangles-one-piece-carbon-wheels-first-look.html [Accessed 18 December 2019]

Mac an Bhaird (2010) SME Financing: A Life Cycle Approach. *Resourcing Small and Medium Sized Enterprises*. Contributions to Management Science. Physica-Verlag Heidelberg Ltd.

Maine, E., Soh, P-H., Dos Santos, N. (2015) The role of entrepreneurial decision-making in opportunity creation and recognition. Technovation (2014). Elsevier Ltd.

Market Business News (2020) Who is an Investor? [ONLINE] Available: https://marketbusinessnews.com/financial-glossary/investor/ [Accessed 20 February 2020]

McAdam, M., McAdam, R. (2008) High tech start-ups in University Science Park incubators: The relationship between the start-up's lifecycle progression and use of the incubator's resources. *Technovation*, no.28:277-290

McEwan, K., Weston, N. (2017) January. Different spokes: A multidimensional scale analysis of market segmentation in mountain biking. *International Journal of Sport Management and Marketing*, vol.17(162)

Nalamolu, T. (2017) 2 August. 6 Challenges to Expect as an Entrepreneur (And How To Overcome Them). *Forbes*[ONLINE] Available: https://www.forbes.com/sites/theyec/2017/08/02/6-challenges-to-expect-as-an-entrepreneur-and-how-to-overcome-them/#207cb0a375eb [Accessed 13 October 2018]

Nielsen, T. (2013) 24 October. Business accelerators: a financial shot in the arm for startups. *The Guardian*. [ONLINE] Available: https://www.theguardian.com/small-business-network/2013/oct/24/business-accelerators-financial-startups [Accessed 5 March 2018]

O'Brien, S. (2015) 25 February. What is a Dividend? *Dividend.com* [ONLINE] Available: https://www.dividend.com/dividend-investing-101/what-is-a-dividend/ [Accessed 25 February 2020]

OECD (2017) June. Enhancing the Contributions of SMEs in a Global and Digitalised Economy. *Meeting of the OECD Council at Ministerial Level*, Paris, 7-8 June 2017

Paschen, J. (2017) Choose wisely: Crowdfunding through the stages of the startup life cycle. *Business Horizons*, vol. 60, issue 2

Peavler, R.(2017) 11 September. Learn About Debt and Equity Financing. *The Balance*. [ONLINE] Available: https://www.thebalance.com/debt-and-equity-financing-393248 [Accessed 1 February 2018]

Peavler, R. (2018) 8 January. Internal Sources of Business Capital. *The Balance* [ONLINE] Available: https://www.thebalance.com/business-capital-internal-sources-393416 [Accessed 3 February 2018]

Pichler, F., Tezza, I. (2016) "Crowdfunding as a New Phenomenon: Origins, Features and Literature Review". In: Bottiglia, R. and Pichler, F. (eds.) *Crowdfunding for SMEs: A European Perspective*:5-45, Macmillan Publishers Ltd., London, UK

Robertson (2018) What Makes Being an Entrepreneur Challenging? *Chron* [ONLINE] Available: https://smallbusiness.chron.com/being-entrepreneur-challenging-32802.html [Accessed 13 October 2018]

Sarasvathy, S., Kumar, K., York, J.G, Bhagavatula, S. (2014) January. An Effectual Approach to International Entrepreneurship: Overlaps, Challenges, and Provocative Possibilities. *Entrepreneurship Theory and Practice*:71-93

Saunders, M., Lewis, P., Thornhill, A. (2009) *Research methods for business students*. 5th edition. Pearson Education Limited

Shane, D. (2016) 2 November. 9 Biggest Problems When Starting a Business and How to Solve Them. *The Mission* [ONLINE] Available: https://medium.com/the-mission/9-biggest-problems-when-starting-a-business-and-how-to-solve-them-e3ebc85b189a [Accessed 25 July 2018]

Shane, S., Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, *25*(1), 217–226.

Surbhi, S. (2015) 31 May. Difference Between Equity Shares and Preference Shares. *Key Differences*. .[ONLINE] Available: https://keydifferences.com/difference-between-equity-shares-and-preference-shares.html [Accessed 26 March 2018]

Tikkanen, A. (2019) Extreme sports. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc.[ONLINE] Available: https://www.britannica.com/sports/extreme-sports [Accessed 22 April 2019]

University of Pittsburgh Innovation Institute (2020) Why Commercialize? [ONLINE] Available: https://www.innovation.pitt.edu/innovators/why-commercialize/ [Accessed 23 February 2020]

Westhead, P., Wright, M., McElwee, G. (2011) Entrepreneurship: perspectives and cases.1st edition, Harlow, Pearson Education Limited

Yazdipour, R. (2011) Chapter 2. A Behavioral Finance Approach to Decision Making in Entrepreneurial Finance. In: Yazdipour, R. (2011) *Advances in Entrepreneurial Finance: With Applications from Behavioral Finance and Economics*. Springer Science + Business Media

Yin, R.K. (2011) *Qualitative Research from start to finish*. Guilford Publications, Inc. New York

Zahra, S.A., George, G. (2002) International Entrepreneurship: The Current Status of the Field and Future Research Agenda.

APPENDIX 1. EXPLORATORY INTERVIEWS

1. Describe your business
2. Describe your current business goals
3. In what stage of business are you now?
4. What are your current challenges?
5. What do you need to overcome those challenges?
6. How important are FR to your business right now and why?

APPENDIX 2. INTERVIEWS ON RESOURCES AND DECISION-MAKING. ENTREPRENEURS

Theme 1. Resources

FR1. How are you planning to utilize FRs?

FR2. How are you going to obtain those resources?

FR3. Do you think your needs for FR will change as you proceed and how?

FR4. What impact will it make if you do not get resources?

Theme 2. Entrepreneurial decision-making (ED)

ED1. What decisions are currently most crucial for you venture?

ED2. What decisions are essential for you regarding getting the funding?

ED3. What are the restrictions you are facing at this stage of your venture?

ED4. How did your behaviour change on the basis of those constraints?

ED5. How do you see your role change as your firm progresses?

ED6. What impact would your own decisions have on your success in getting funding?

APPENDIX 3. INTERVIEW SUMMARY. EXPLORATORY

	NC	A	B	C	D	E
Business						
Frames and full bikes	X	X	X	X		
Retail						X
Components					X	
Market(s)						
MTB	X	X	X	X	X	X
Road			X	X		X
Electric	X					
Other (gravel, urban, etc.)			X		X	
Size						
Micro (<10)	X	X	X	X		
Small (10-50)					X	X
Stage of development						
Seed	X					
Startup		X		X	X	
Growth						X
Maturity			X			
Goals						
Becoming a full-time company	X			X		
Continuing business						X
Product excellence/improvement			X		X	
Innovation and disruption					X	
Cost efficiency		X				
Challenges						
Growth	X			X		
Production	X	X				
Partners/staff		X				X
Market and marketing channels					X	X
Overcoming challenges						
Finances	X		X	X		X
Time			X			
Innovativeness			X		X	
Learning			X		X	
Channels						X
Marketing					X	
Role of finances						
Tool to achieve goals	X			X	X	
Complementary to other factors			X			X
Challenge in itself		X				

APPENDIX 4. INTERVIEW SUMMARY. DESCRIPTIVE

	NC	A	B	C	D	E
Use of resources						
Production and supplies	X	X				
Patents	X				X	
Marketing				X		
Possible sources of funding						
Own capital	X	X	X	X	X	X
Loan						X
Changing needs for resources						
Aims to get more resources	X			X		
More external sources					X	
Lack of funding -impact						
Slowing down	X					
Closure				X		
No impact					X	
Decisions vs funding						
Using all opportunities	X					
Commercialization				X		
Just focus on goals					X	
Continuing the business at all		X				
Changing role						
Administration and management		X			X	X
Sole owner	X		X	X		
Impact of own decisions						
Decisions are crucial	X			X		