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Entrepreneurs and Growth: An Option, Obligation or Obsession

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Abstract

“Growth” as a word carries a positive tone in it; human beings grow and mature, gaining new knowledge and resources, and so do companies. Growth, however, has never been for all. In competitive markets, some grow and others do not—or grow at slower pace than others. Furthermore, growth is a process that strains the capabilities and resources of an individual, company, and its acting entrepreneurs to their extreme. Growth means also learning and leaving behind something learned of possessed before. Growth disrupts the history and path of a single company and its entrepreneur. The text synthesizes the scattered literature in growth and entrepreneurship. A case study shows how growth is viewed in an entrepreneurial company. The author shows how companies can be categorized to different sub-segments based on their growth opportunities, urge to grow, and growth aspirations. The typical enablers and hindrances of growth hindrances get introduced. The chapter underlines that for some companies, growth is one of the strategic options, whereas to some, it is more of an internal and external obligation. Despite the existence of multiple stage-based models, growth is an individual path and no model should be taken in a law-like manner.

Keywords: entrepreneurship, growth, opportunity, evolution, disruption

1. Introduction

Growth and growth entrepreneurship are current buzzwords of business development. They have made their way recently also to political vocabulary. National, regional, and local authorities and organs create and maintain programs and policies that aim at fostering growth among the enterprises they support and regulate. Also, the word “startup” is well known and actively used by all type of actors in business and policy arena. The name of startup itself

implies that it is started from scratch, with the only option to grow (or die) soon. This topical area deserves a treatment also when entrepreneurship get pictures and investigated.

In this chapter, the aims are:

- To understand what we mean with the concept of “growth” itself;
- How growth as a concept and process could be understood in a wide yet concise manner inside the field of entrepreneurship;
- Introduce methodological and conceptual models that can be used as models when researching growth in the field of entrepreneurship as well as practical tools to analyze growth opportunities and obstacles within a firm and act on it.

We look at growth from processual, dynamic, and individual points of view. Elements of growth get discussed, and also, some taxonomies of companies in relation to growth are introduced. In the latter part of the chapter, recent studies of the growth companies across continents, their growth enablers, and hindrances are presented. In order to mirror entrepreneurial reality against the models and theories of the literature, a portrait of a growth trajectory of a fast-growing environmental technology individual firm gets presented. To conclude, the future of growth as a phenomenon is discussed.

2. Methodology

This chapter combines the practices of conceptual research in the literature review and qualitatively oriented case study research in the empirical part. As Ravitch and Riggan [1] put it, the conceptual framework includes not only the relevant theoretical literature but also aims at fitting into it the findings of prior research as well as the researching authors own experience-based knowledge and commitments. Furthermore, they define conceptual framework as “an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous” [1], also pointing out that they tend to and even should change along the study process, as the knowledge of the researcher changes in volume, content, and direction. From this methodological viewpoint, this chapter should be seen as a journey in the vast supply of frameworks and research findings related to the chapter topic. The author aims at creating a certain level of synthesis of the scattered literature. The wide treatment of different angles related to the phenomena of growth and entrepreneurship serves as a basis for students and researchers of the topic to choose the areas from within the big picture to drill into.

The exploratory approach to scan, compare, and synthesize (where possible) represents the “reason” element of the framework building, following the ideas of Ravitch and Riggan [1]. The other element “rigor” means choosing a method and using it with rigor to create knowledge out of data gathered. In this chapter, the rigor is represented by the use of case study method to link the conceptual framework into the trajectory of growth of an individual firm.

The research approach used in the case study (Chapter 3) was inductive. The research project proceeded from collecting the primary data of the object of study to recognize patterns that

would then serve as basis for model creation. The process also included critically reviewing the identified issues against conceptual and process models of prior research and proposing improvements or modifications. As it goes for inductive approach, models and concepts presented in the literature review can affect but neither decide nor limit what the researchers will find when collecting primary data [2]. Single case study was selected, since the case study method is well suited to the aim of understanding new and evolving phenomenon [3, 4].

Qualitative research method was chosen due to the opportunities it gives to the researcher to develop a complex, holistic picture of the target [5]. The data were collected using semi-structured interviews. There were pre-planned themes to ensure the interviewees covered the essential topics emerging from the framework creation and to guide the interviews so that they allow summaries and comparisons between individual respondents. The informants were informed of the key themes—but not exact questions—when agreeing the time and place for the interviews.

Choice of respondents plays a crucial role for data quality and affects the ability of the researchers to come up with concise conclusions. Altogether four respondents from the target company were interviewed. To balance and mirror the internal view and in order to have a wider and more neutral view to the case company, three external experts of the industry in question and growth company management were added to the respondent pool. The final pool consisted of following types of respondents as listed below:

1. In-house resources in company X

- Founder-Owner-Manager—later in this paper referred as FOM—the person behind the core innovations of X acts as CEO and is the biggest shareholder in X
- Owner-Manager—OM—works in business development, experience in environmental/energy business also from a large corporation, has an equity stake in X
- Sales & Marketing Personnel—two respondents; SMP₁, SMP₂—work in the commercial activities of X in different markets areas, no equity stakes in X

2. External experts

- External Industry Expert (EIE): an expert in energy and environmental technology business.
- Business Development Expert (BDE): an experienced start-up business coach and board member in start-ups
- Venture Capital Expert (VCE): over 15 years of experience in VC and private equity investments

The researcher team for the case study consisted of two researchers with different educational and background and researcher experience. In order to avoid biases in conducting interviews, a joint semi-structured frame was created in advance. In the interviews, the frameworks of earlier research were shown to respondents on a schematic level in order to spark and steer the discussion. All interviews were recorded and loosely transcribed after which the researchers first analyzed the data independently. Next, the individual findings by the two researchers

were compared and fused for a joint view. All interviews took place within 3 weeks timeframe, so the contextual factors were the same for all interviews.

3. Literature review

3.1. Growth in business: definition and its relativity

Is 1.0% growth per annum really growth? In the economic downturn that started in the latter half of 2000s, we have learned that even this type of growth on the society level is a good sign for many economies. Doubling it to 2% will prove the economy is back on growth track. Naturally, the same scales should not be applied to individual entrepreneurial firms. Compared to societies that have a lot of inbuilt inertia, force of slowness, a firm, and entrepreneur (s) in it can move in a much more agile way, grasp the opportunities, and find new markets. Yet, growth in business is not nearly as common a phenomenon as the popularity of the term and research on it would suggest.

An often and officially used definition for a growth company is the one by EU and OECD that claim that: "A growth company is a firm that at the starting point of the follow-up period employs at minimum 10 people, and for the next 3 years, the average growth in the employment is at min. 20% annually" [6]. This may sound like a modest demand in the world where there are companies that mushroom, go global, and get funded heftily in a short few years' time. Widely published stories of unicorns (whose market capitalization is 1 billion USD or more) are however just the top of the iceberg, growth is taking place in all segments of business and most often outside the radar of the mass media and public recognition. As an example, in the timespan of 2006–2009 in Finland (an advanced economy in terms technological level, education and GDP), this country with 5.5 million population only had 665 true growth companies, out of 280,000 total number of companies registered. This means that a mere 0.2% of companies are growth companies. However, at the same interval, the growth in these companies was a major vehicle of employment and net job creation in the economy.

The abovementioned definition focusing on the company's headcount as the measurement of growth has been criticized. In the era of networking, outsourcing and digitalization sales revenues can scale up fast with minor impact to the number of people in the payroll. Shifting the measuring stick to average 20% sales revenue for 3 years in a row does not change the big picture. In the Finnish context, the amount of "growth companies" doubles. However, growth companies of this kind still represent 0.5% fraction of companies!

There are also whole industries and markets, where the 20% annual grow definitely is not enough and not a satisfactory achievement. Entrepreneurs funded by professional Venture Capital companies (VC) are posed to high expectations and demands for growth. The Venture Capitalists' agenda is straightforward: Invest → help to grow (during Holding Period) → Exit → Invest to next target. Venture Capital firms differ in their IIR (Investment Rate of Return) demands and do not share their targets on IRR publicly. Journal articles and start up training programs have introduced some "typical demands" from the VC community [7, 8].

These vary between “(invested) money back 10-fold in 5 years—via IPO or trade sale exit” to “3-fold in 10 years—that most of other companies would see as a failure”. The National Bureau of Economic Research has found out the average return in reality to be 25%, but occasionally even up to 700% returns have materialized. It is not likely any VC firm would be satisfied being average or would state publicly industry average is sufficient for them. Putting the figures given above to the IRR conversion table (**Table 1**), we see what kind of multiples to original investments and exit times are needed to high end (10-fold return in 5 years), average (25% return), and low end (3-fold in 5 years).

Naturally, the IRR also is dependent on the ownership stake that the VC firm takes in the company into which they invest. Using the high-end IRR demand (10-fold return in 5 years), we see that if a VC company takes a 25% stake in the company—rather typical practice in VC operations—the company value has to grow aggressively (**Table 2**). If the stake that the entrepreneur sells out to investors is just 10%, the growth needs to be even more spectacular to satisfy the return needs of the investor.

In today’s economy, the valuations of companies are rarely based on asset value. An often used basis in the pricing of the company at exit is the multiple on the net sales. A multiple of 2

EXIT YEAR					
Multiple	3	4	5	7	10
3 x	44%	32 %	25 %	17 %	12 %
4 x	59	41	32	22	15
5 x	71	50	38	26	17
7 x	91	63	48	32	21
10 x	115	78	58	39	26

Table 1. Return on investment vs. exit time and multiple on original investment.

<i>If you sell this part of your company</i>	For an investment of	With the return of investment of 10x in 5 yrs	The company needs to be worth in 5 yrs
100 %	€ 1 mill	(€10 mill)	€ 10 mill
50 %	€ 1 mill	(€10 mill)	€ 20 mill
25 %	€ 1 mill	(€10 mill)	€ 40 mill
10 %	€ 1 mill	(€10 mill)	€ 100 mill

Table 2. Stake sold to investors and its impact of growth demand in value.

means company sale value being net sales of the last fiscal year multiplied by 2. In the above examples, the net sales have to reach either 20 or 50 million a year. The multiple of 2 is on the mid-range of typical valuations for enterprise value [8]. If the year of investment the net sales were 5 million, the official demand of 20% annual growth would lead them in 5 years to just over 10 million, which would not satisfy the investors.

As a summary it can be stated that

- Growth is needed for advancements in economy and society, on an aggregate level;
- True growth in business is not as a common phenomenon as assumed and wished, huge majority of the companies fail in fulfilling the official growth company criteria;
- Growth does not bear the same meaning and urge for all companies, industries, and stakeholders.

Logically, the findings above propose that we should approach growth in the entrepreneurial context from multiple angles. We want to shed knowledge on what growth is made of, how and why does it happen, and what is the role of entrepreneur or entrepreneurial team in the growth. We also need to see if there are foreseeable profound changes in economics, societies, and technology affecting entrepreneurial growth both in its chances to flourish as well as in the way, it is executed.

3.2. Growers, hypergrowers, and non-growers

The literature on SMEs and entrepreneurship does not fall short in presenting options for taxonomies of companies in relation their growth. Based on the views of Birch and Hagerty [9] and Storey [10], one can come up with the following hierarchy that divides companies into five categories:

1. **Shrinkers:** Negative growth, the ones that are going down in size of business subcategories: (1) passive shrinkers; (2) deliberate shrinkers (e.g., family firms not having successor to take over or a self-employed person gradually retiring)
2. **Trundlers:** No growth, e.g., mature firms with nongrowing market
3. **Triers:** Some growth and some aspiration to grow
4. **Fliers:** Rapid growth
5. **Hypergrowers:** Exponential (and today: viral) growth

The research intensity on company growth has been understandably placed to the high end of the growth continuum. An appealing research objective has been the cohort of Gazelle companies, a category with widely accepted definition. A Gazelle company has increased by at least 20% annually for 4 years or more starting from a revenue base of at least \$1 million. This pace means that the company is able to double its revenues over a 4-year period. A gazelle company acts like an animal chosen to its symbol—it runs fast and, when needed, jumps.

The questions that have interested numerous researchers of gazelles have been: Why and how the entrepreneurial firms then end up into one category in the continuum—e.g., how and why they become gazelles? Are there some practices that can be learned to foster growth or practices to avoid that are hindering growth? Numerous researchers (e.g., Calvo [11] on Spanish manufacturing SMEs; Parker et al. [12]) have been drawn to test the classical Law by Gibrat [13] that says in its simplified format that firm growth is independent to its size. So understanding growth is not a SME and entrepreneurial phenomenon, but growth can occur in any size of a company. Gibrat's inputs propose that if firm growth do is a random variable, three outcomes would be excluded: (1) firms of a given size will grow faster (or slower) than other sized firms; (2) firms that grow faster (or slower) in one time period will grow faster (or slower) than in a later time period; (3) there will be factors that powerfully and consistently explain firm growth performance.

Parker et al. [12] used British data set on more than 100 Gazelles. They state that the Gibrat's law does not generally hold. They also add that "best practice learning", i.e., routine application of strategies adopted by successful companies is unlikely to foster firm growth in a changing economic environment. Calvo [11] analyzed whether small, young, and innovating firms have experienced a greater employment growth than other Spanish firms over the period. His results show that old firms grow less than young ones, and high level of process and product innovating activity is a strong positive factor in the firm's survival and its employment growth. Conclusion is that small size of a company is a potential set up for growth. The key variables for growth are still the deeds, strategies, and action suitable to the dynamic environment. These deeds are to a certain extent individual to each company.

In addition to the academic research, the consulting company Deloitte has acted in adding knowledge and understanding of high-growth companies. For more than a decade, Deloitte has surveyed growth companies across markets. The reports published on growth companies by identify them and present the enablers of the growth that has already taken place as well as enablers and obstacles for future growth. Deloitte lists on a yearly basis top 500 growth technology companies, separately for EMEA, Americas, and Asia regions [14]. Findings support the earlier studies in showing that the environmental factors affect firm growth. According to Deloitte, the innovation and growth context also referred as entrepreneurial "ecosystem" impact the growth. Large domestic market does not seem to that important a variable for growth, at least not in the technology business that is the overarching theme for the Deloitte study, as **Table 3** shows. For example, countries of Northern Europe are overrepresented in the listing compared to population. Germany as the biggest single economy in EMEA falls short in the presence of growth companies.

The other environmental factor affecting growth is the industry and the nongeographical marketplace in which companies operate. Industries vary in opportunities of scalability and resource demands (capital, capacity, and assets) for growth. Certain industries (see **Table 4**) seem to offer a more fertile growth for hypergrowth than others. In software business, the threshold or "barrier of entry" for high growth seems to be the lowest one (highest number of companies listed), whereas the growth opportunities in hardware, media, and cleantech are the highest for those who can surpass the threshold (highest average growth in the sector).

Top 10 countries with the greatest number of winners

Country	Number of ranked companies
France	94
United Kingdom	70
The Netherlands	54
Norway	50
Sweden	50
Israel	27
Finland	23
Germany	23
Belgium	22
Turkey	21

Table 3. Fast 500 growth companies according to country of origin: EMEA region.

Companies and growth by sector

Sector	Number of ranked companies	Average growth per sector (%)
Clean Technology	20	471
Communications	61	345
Hardware	49	962
Life Science	29	347
Media	70	644
Software	271	362

Table 4. Fast 500 growers by sector and growth rates per sector: EMEA region.

Average growth rate of Deloitte EMEA 2016 awardees is 967%, ranging from 212% up to 28,000+ %. Despite the obvious support from the context surrounding the company, growing companies of total 28 countries were awarded as top 500 growers. This underlines the fact that growth is still to an extent of an independent entrepreneurial effort that can be born in numerous contexts. This phenomenon has also been recognized by Mahroum [15]. The title of his book reveals well a certain context independent of modern growth businesses: "Black Swan startups: Understanding the Rise of Successful Technology Business in Unlikely Places".

3.3. Elements of growth

Researchers, statisticians, investors and policy makers, and evaluators alike need and produce numerical proofs and measurements of growth. However, these statistician views may be

misleading in the sense that (1) they see the growth as an end rather than means; (2) they fail in understanding the multifaceted nature of growth; and (3) they assume all aspects of grow are demonstrated in the numerical data with a relatively short lead time.

The analysis of the nature of growth and elements making the totality of it by Wickham [16] shows what a wide look at the phenomenon called growth may be (**Figure 1**):

When analyzing and acting upon Wickham's framework, it is worth noticing that

- There is not a sequential order of growth elements to occur
Example: Good performance accumulates resources that can be used to build/acquire assets or alternatively: Organizational growth helps the company to define and find direction that leads to better performance that strengthens financial position etc.
- There are iterations and loops
Example: Resources allow acquisitions of assets that, when properly used, allow the organization to grow and perform, adding again the resources etc.
- Every elements acts in an interplay with others
Example: Growing an organization is not a value *per se*. Organizational growth only makes strategic sense when connected to the assets and direction to move forward
- Some elements of growth do not get an immediate manifestation in numbers available from official and public data like income statements and balance sheets
Example: Without proper strategic direction, the Wickham's cycle of growth is "broken": Sometimes a direction means a temporary de-growth as some products/services or customer segments are abandoned in order to make room for new ones. The impact on numbers in employment and revenue can even take a backslash but impact positively on long-term success

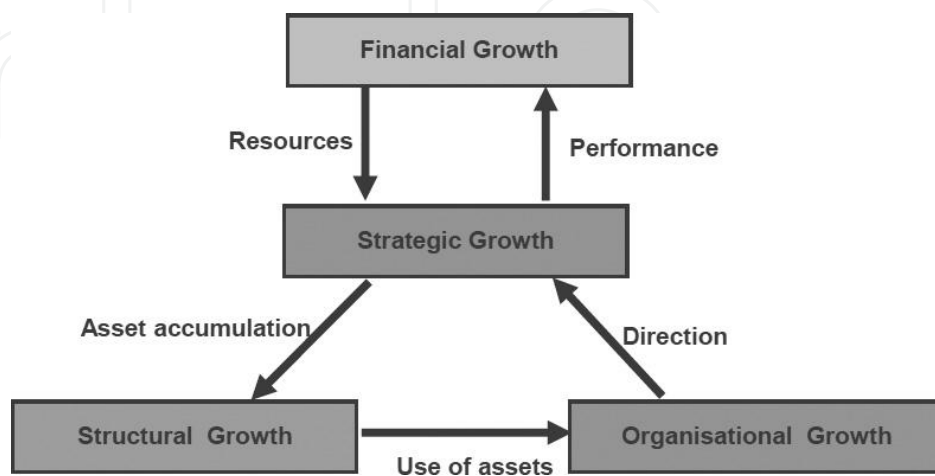


Figure 1. Nature of growth adapted from Wickham [16].

- The model does not state that all elements need to be internal to the company

Example: Structural and Organizational Growth—elements can be also partnerships and networks in which the company and entrepreneurs become part of.

Typical for a growth pattern of entrepreneurial companies is that the elements of growth at one point of time do not take place at same pace and magnitude. There are developmental stages where one element is weighted over the others. The key knowledge for a growth-aspiring entrepreneur is to recognize what is the “bottleneck element” hindering the growth. Logically, the next managerial step is to figure out how that element could be “fed” to reach a level that allows growth cycle to spin.

Wickham’s model is not a sole one that describes the dimensions of growth. For example, Hanks and Chandler [17] propose the dimensions of age, size, value, sophistication, and complexity. As can be seen, some of the dimensions offer a clear-cut measurability, whereas some are more open to relativity and subjective/qualitative judgment. Building on that, e.g., Laukkanen [18] and Muhos et al. [19] have utilized a dichotomy of qualitative and quantitative dimensions for SME growth. Independent of the dimensional framework used, all authors seem to agree on the complex and multifaceted nature of growth. This view requires both wide and deep study into the actions as well as causes and consequences of that action.

3.4. Growth as a sequential process

Researchers have been fascinated in building process models of entrepreneurship and growth of entrepreneurial companies. These stage-based models have varied in naming the stages, but the overall philosophy has remained the same—growth starts at some point of the company journey and stops or stagnates at some later point. These stages bear importantly different issues, opportunities, and obstacles for growth between them. In their large study, Levie and Liechtenstein [20] identified and analyzed 100+ stage-based models of growth. One of those models often cited is the one by Scott and Bruce, where they presented a trajectory consisting of stages of (1) Inception, (2) Survival, (3) Growth, (4) Expansion, and (5) Maturity [21]. Interestingly, growth is separated to be stage of its own right and separated from other three early stages. Stage sequences between three to six stages can be commonly found across scholarly literature, models going down to two stages and seven or up are more rare but existing. The validity of staged-based models has been often defended by the observation that entrepreneurs have been well able to place themselves into some of stages presented in the models, e.g., Eggers et al. [22].

The stage-to-stage movement is not linear and not happening at a constant pace. Numerous scholars have stressed the important role of discontinuities and crises in the development. Some like Kazanjian [23] use terms like “developmental problems” or “developmental hurdles” [24], instead of “crises.” Dodge et al. state that there is a consensus of different problems occurring at during different stages of growth, and they are of sequential nature [25]. According to Scott and Bruce [21], the “crisis” stages are more likely to cause the organization to fail than other phases of development, if the company fails in solving the development obstacles. The crises and hurdles are negative to the development of a start-up company and

entrepreneurs. When in crisis, the entrepreneurs can learn new ways of thinking and acting. According to Greiner "...these periods of tension provide the pressure, ideas and awareness that afford a platform for change and practices" [26]. Greiner's model (**Figure 2**) shows the sources of growth through the stages of growth and likely sources of crises.

A new stage-based model is the one introduced in the start-up genome report [27] by Marmer et al. The researchers state that at start, they saw "describing the repeating patterns of startups an impossible task or even a disgraceful reduction of the artistry of entrepreneurship to numbers and graphs". Marmer et al. claim to have gained understanding of success and failure factors over growth stages. The project started with basic assumptions held by many earlier researchers:

1. Startups evolve through stages of development. Stages can be measured with specific milestones and thresholds.
2. There are different types of startups. Each type evolves through the stages differently.
3. Learning is a fundamental to progress for startups. More learning increases chances of success.

With point 2 above, Marmer et al. mean different types of Internet start-ups. So it is industry specific and based on their own sample. Points 1 and 3 provide wider applicability.

Evolutions and revolutions as organisations grow

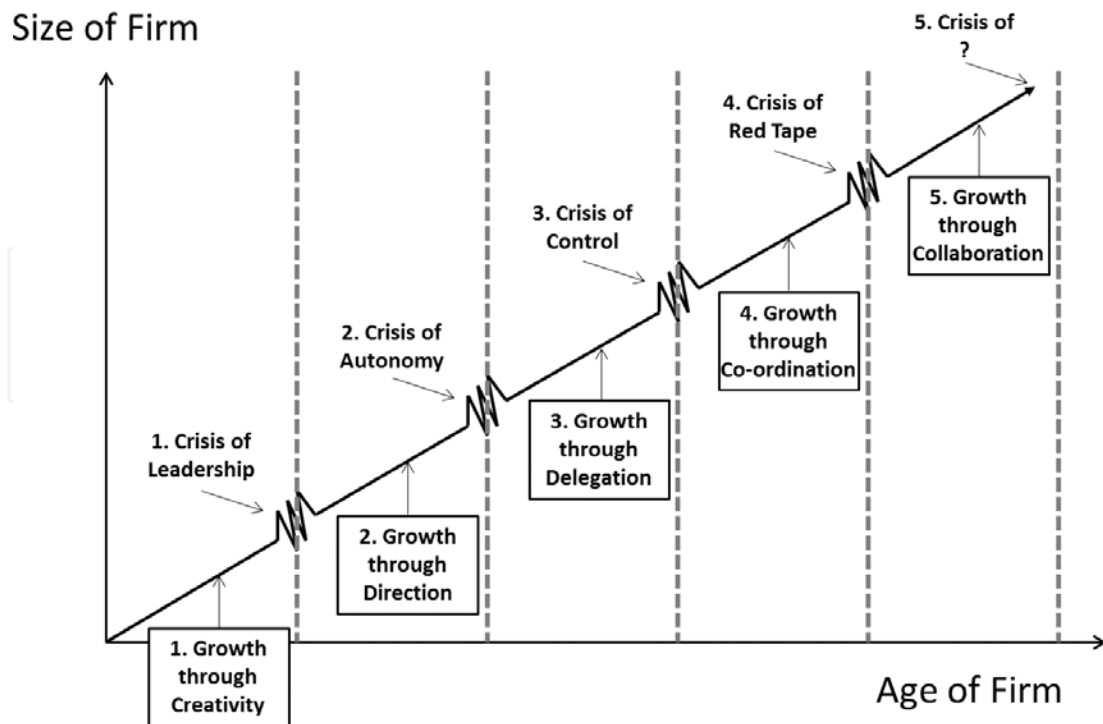


Figure 2. Sources of growth and crises in a growth trajectory of a firm (based on Greiner [26]).

The four stages identified — “Marmer stages” — are Discovery, Validation, Efficiency, and Scaling. As a conclusion, it is stated that:

1. The Marmer stages correlate with traditional indicators of progress.
2. The startups do not move through the stages (called non-consistent growth) in order show less progress.

In their research, Marmer et al. observed a specific phenomenon of Premature Scaling [28]—a development trajectory that jumps over a stage or overspeeds through it has a high correlation with a later failure of a start-up. Opposite to “growth obstacle,” this phenomenon can be called “wrongly directed growth” that consumes and misdirects the growth resources of the company. In their data originating of 600+ Internet-based businesses, Marmer et al. found that 70% of startups which they studied scaled prematurely and thus were not able to exploit their growth potential.

3.5. An alternative look: growth as a dynamic movement

The key theme of previous chapter: stage-based models of entrepreneurial growth have not been popular only in doing. The models have been tested for validation and improvement in numerous contexts and set-ups. A summary made by Muhos and Kess [29] proposes that “The empirically based stage framework seems to be an effective tool for *reflecting on and predicting* the challenges faced during the early development of a company”. Moreover, their study revealed specific viewpoints contradictory to the framework: companies in different contexts face *culture-and context-specific issues* in their early growth, allowing the following statement to surge: “Growth is a multidimensional phenomenon, and each and *every early technology-intensive company is unique to an extent.*”

Levie and Lichtenstein [30] state that the stage-based models fail as they suggest a certain level of determinism. There too are cases where the entrepreneurial firms and entrepreneurs in them can retrospectively see their development to have followed closely one growth model. This does not yet give justification to call them *models* of growth. Since there is a supply of 100+ models, it is statistically speaking logical to make a good match with one or many of the models. The suggestion of Levie and Lichtenstein is to see growth rather consisting of dynamic states between which the firm moves. This approach gives space to discontinuities and iterations. Various researchers like Cope and Watts [31] have shown interest to understand growth paths as a series of critical incidents that trigger actions affecting growth and adaptability and action learning [32]). According to Evers [33], even the entrepreneurial capabilities should be considered dynamic. They vary in content and value, as the firm and entrepreneurs move along their trajectory.

Figure 3 shows a schematic model of the dynamic state model, where the entrepreneurs action and reasoning have an effect on and are effected by its resources and interactions with other stakeholders, creating a cycle of continuous change.

As Levie and Lichtenstein (ibid.) summarize, “not only is the dynamic states approach more accurate than stages theory, it is also more optimistic for entrepreneurs. With flexibility and

Dominant Logic of Founder(s), Managers

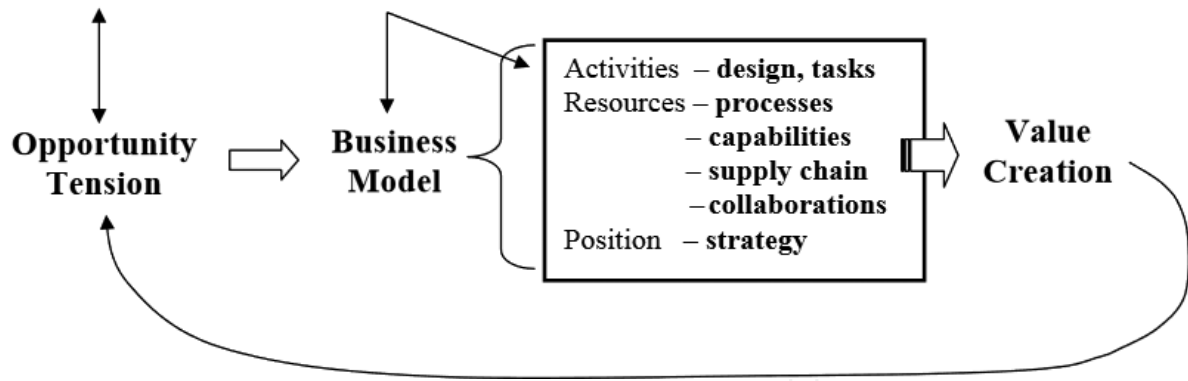


Figure 3. The elements of dynamic change [20].

awareness, ventures can endure far longer and in much greater variety than has ever been predicted by stages theory. Further, the dynamic states approach shows that it is normal for a firm to survive and maintain fitness by continual change...” This idea of never-ending development is studied more closely in the empirical case part (Growth trajectory of an environmental technology startup) of this chapter based on research by Saukkonen and Vanttinen [34].

3.6. Growth as a personal path of an entrepreneur

There is a consensus view that the development of an entrepreneurial company should not be (fully) separated from the personality and development of people running it. These intervening factors include the personality traits and life stage of the owner/manager (see Figures 4 and 5).

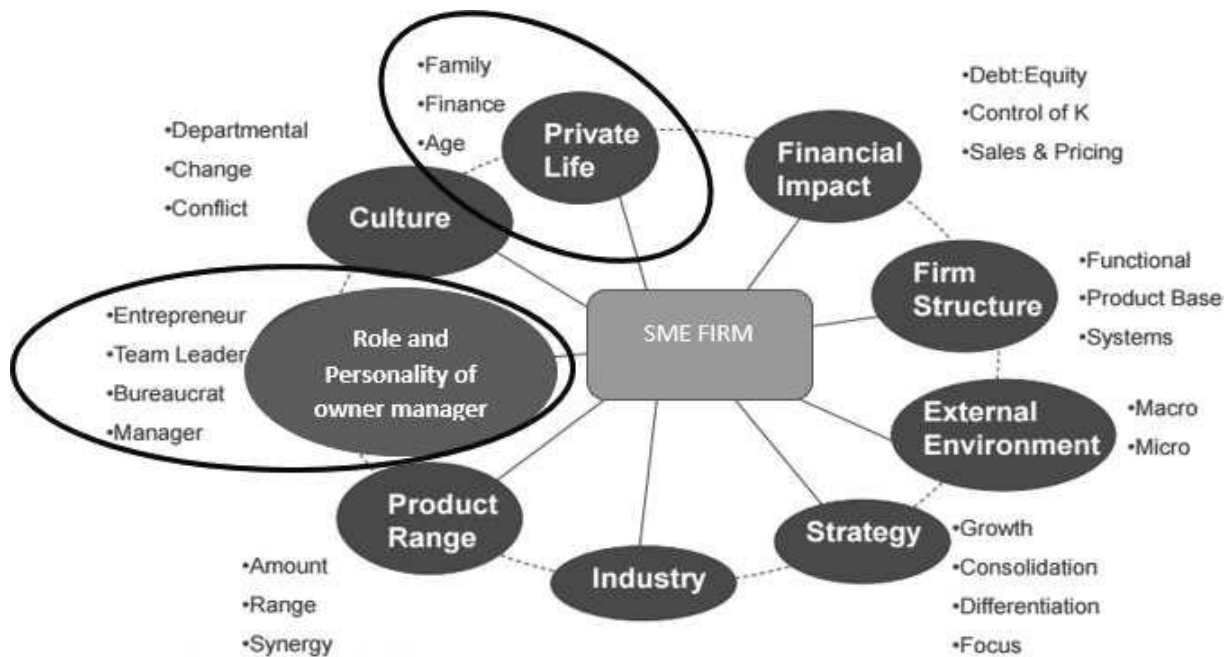


Figure 4. Factors affecting growth: Compiled from multiple sources.

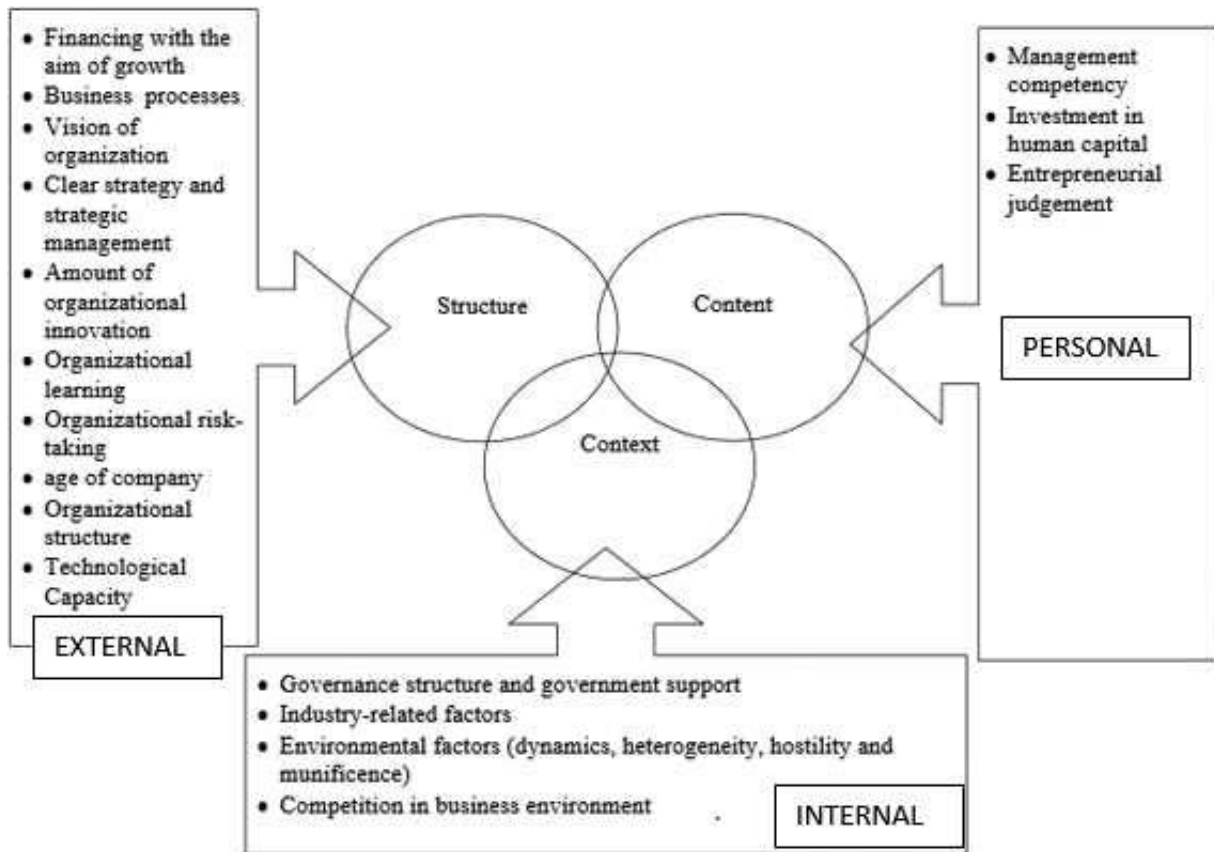


Figure 5. Categorized model of factors affecting growth adapted from Farrokh et al. [35].

More structured view of these individual factors has been presented, e.g., by Farrokh et al. [35] with a trichotomy to Internal, External, and Societal factors. Internal factors refer to the organization and resources inside the firm. External factors are societal and business network based. Personal factors include owner-manager's drive and capabilities. These are needed to be present for growth to take place.

Just like personal life, goals and situations can affect either way (positively and negatively) to growth aspirations and willingness, the dynamics can also act in a reversed direction. Growth can lead an entrepreneur to situations and conditions that serve another purpose than the growth itself. In this view, growth is a means of getting somewhere, not a value or target *per se*. This view got support in the classical volume by Hampden-Turner and Trompenaars named "Seven cultures of capitalism." In their work [36], it gets shown how there were deep and important underlying basic motivations of people working in these different capitalism-driven systems.

Capitalism is too a major extent based and dependent on free enterprise. The free enterprise is made of individuals engaging into entrepreneurial activity to reach their goals. They are the backbone of all capitalistic systems. That much so, that the US Small Business Act from 1953 boldly opens by stating (Paragraph 1): The essence of the American Economic System of private enterprise is free competition and (Paragraph 3) Security and wellbeing of the society

cannot be realized unless the actual and potential capacity of small business are encouraged and developed [37].

If and when we believe the statements of US Small Business Act and also Friedman, entrepreneurs grow because they want to earn more than their nongrowing business would yield. Hampden-Turner and Trompenaars [36] interestingly prove that to be a false assessment. In his study and book, the nation whose “culture of capitalism” was primarily based on “creating personal wealth” was UK. The driving force in American capitalistic culture was “creating something new.” And often the creation of new products, services, and markets requires additional resources, and the way to attract resources is to grow. This view suggests the process of growth is of a value per se, the growth is not solely driven by the target of increasing size of the business and resulting wealth.

There has been a wide array of studies focusing on the entrepreneurial cohort of people as a collection of different persons, personalities, and behaviors. This school of entrepreneurship studied is called cognitive perspective to entrepreneurship. The basic thought of this view is that individual characteristics, interpretations, and directions affect (1) the likelihood and action in starting a new business and (2) the way, the path of entrepreneurship will continue. In a study by Kelley et al. [38] based on large data derived from 2010 to 2011 US Survey for GEM (Global Entrepreneurship Monitor), researchers found support to their hypotheses that individuals with (1) high income orientation, (2) high independence orientation, and (3) high self-efficacy (self-assessed ability) are more likely to engage into high job growth intentions. Also, the perceptions of opportunities (market newness, competitive uniqueness and international intensity) that vary between individuals in same circumstances play a significant role [38].

Naturally, some of these variables may not be stable indicators. The independence variable and self-efficacy had not significant correlation to growth intentions in a data collected 2 years earlier. The prolonged economic downturn may have caused that despite entrepreneurs’ ability, the perspectives of growth were not in sight. So the motivation to give an extra effort for growth was missing. Also in the economic doldrums, the risks in seeking growth may overweight the desire for independency, as Kelley et al. speculate.

As an overarching summary of relation of entrepreneur as person and growth, it can be stated that studying growth path of an entrepreneurial company without looking also at its owner/managers is missing a critical element. But as shown, in addition to individual characteristics, also cultural and situational contexts affect growth and aspirations for it. Churchill and Lewis [39] claimed that evolution of an entrepreneurial company will lead to changes and revaluations of the role and core capabilities of founders (see **Figure 6**).

Findings by Churchill and Lewis point out the necessity of the entrepreneur to renew and redefine his/her role along the trajectory of the firm. Just like when raising a child, growth means also letting go. This alone might be one hindering factor of growth: Do I want to manage an organization or am I more on my own turf running a stable business that I can steer independently.

A real-life question posed to Finnish SME companies (the survey panel for of the 2016 National SME barometer of an OECD-wide study “Financing SMEs and entrepreneurs 2017,” and this

The changing role of the entrepreneur

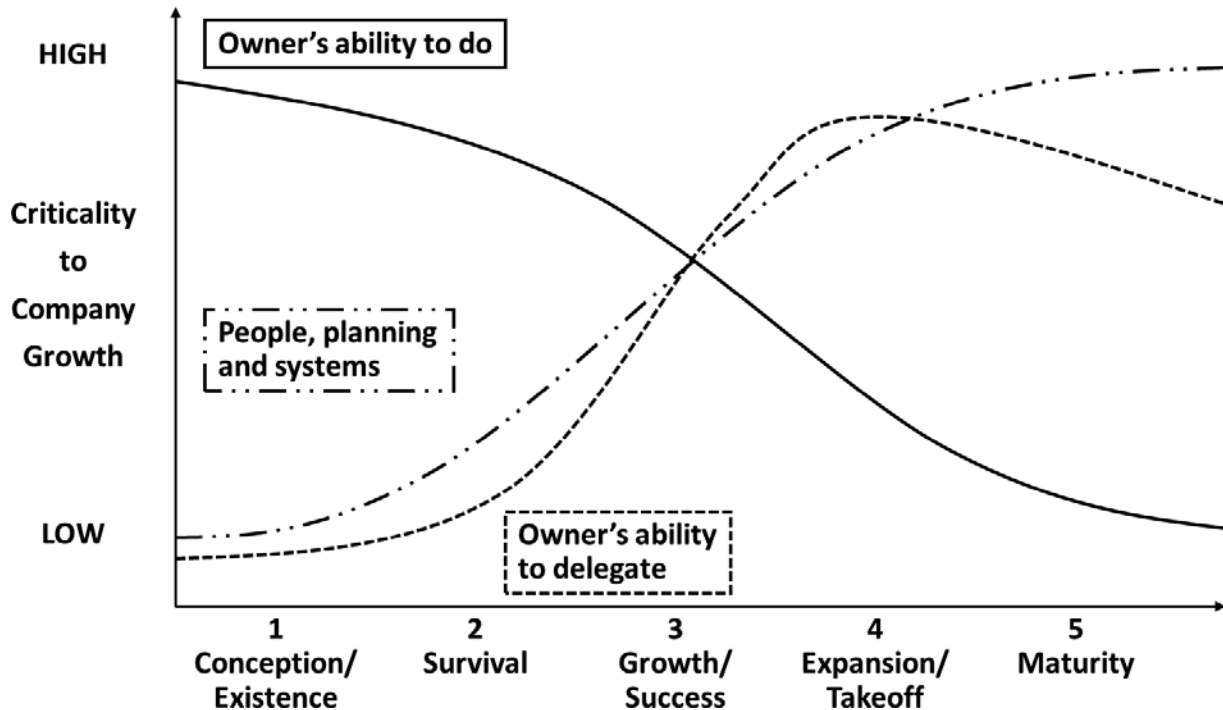


Figure 6. Change of managerial factors over time [39].

question was proposed to be included to the survey by the Association of Finnish Entrepreneurs!) was: "If your company suddenly got a sum of money that corresponds your last years sales revenue, what would you do?" [40] What was then the most popular answer?

Nr 1 (most popular) option: "We would keep most of it as a reserve for future needs."

The cause-effect or reasoning for such an answer was not conducted, but one can speculate with a few alternative reasons: (1) the 10-year economic downturn had consumed the earlier reserves and new buffers for bad times were really needed; (2) the companies do not find appealing opportunities to invest the money to and (3) the companies have no ideas that would need developmental investment into?

Nr 2 (second most popular) option: "We would increase our investments."

Nr 3 options (a draw between two options): "We would pay back some of the debt we have" and "We would increase our innovation activity".

But there are entrepreneurs: and then there are growth-oriented entrepreneurs. Whereas the aforementioned choices of action were the ones surging among the whole sample of 500 SMEs participating, the action plans of the subset of companies identified (by their answers to other

questions) to be strongly growth aspiring. They would (1) Invest, (2) Innovate, and only (3) keep in reserve.

The last conclusion of the study in question is that companies and entrepreneurs do differ in their aspiration and willingness to grow. This may link to the markets they operate in and opportunities in there, but it may also be a personal value statement by the entrepreneurs in relation to growth. This view suggests that growth is not just a phenomenon; it is also a mindset. How are those “entrepreneurial mindset” and “growth mindset” then born and developed? In a study among the students (Business Administration, undergraduate level) that have participated in a specialization program of technology business and entrepreneurship and later engaged to a start-up activity as business owners of employees, Saukkonen [41] observed a gradual conversion into entrepreneurial activity through identifiable stages instead of a sudden decision to embark on an entrepreneurial journey. The key learnings and actions on this path were all related in mingling with entrepreneurs or other entrepreneurs-to-be via *networking, trying, and learning*. These findings hint that here might be more social elements in entrepreneurship development than in the traditional view concentrating on individuals alone.

3.7. Growth companies of today: Why and how do they grow?

Learning from the best seems at surface a natural and recommended way for an entrepreneur to grow from growth aspiration to growth that really happens. In the opening words of “Deloitte Fast 500 EMEA” report on high-growth tech companies. Bucaille points out that the four elements of growth capital, labor, knowledge/creativity and energy/resources are not enough to explain the difference between fast and slow growers [42]. High-growth companies [42] have created out of these a unique combination of value, often referred as business model. In addition, they have added a person-based flavor as a fifth element: leadership.

This opportunity of agile entrepreneurial firms of the new breed to take over the market from traditional players with a superior new value offering is not new. Harvard professor Clayton M Christensen made already at 1990s an interesting finding: When key technologies in an industry change, the dominants’ firms in the “new world” are not the ones they used to be [43]. The industry originally under Christensen’s study was external computer memories: disk and diskettes from 5.25 inch floppy disks to 3.5 inches, and then to hard disks, etc. Why do the best firms of their breed tend to miss the train of change, then? Christensen had altogether five complementary explanations for this. One of them states that *capabilities of an organization define its incapacities*. Very few companies are brave enough to admit that a big part of their legacy in knowledge, practices, facilities, machinery etc. are not asset in the new landscape, but rather a burden that brings with them inertia—*force of slowness*. An entrepreneur starting from a clean slate has then an upper hand to react, adapt, and proact.

The same plot can be found in the early writings of the forefather of innovation theorists and researchers Joseph Schumpeter [44], who proposed at 1930s that at times every industry is shaken by waves of *creative disruption* that rearrange competitive positions and rewrite “the rules of the game” [39]. Mark Jenkins from the Cranfield University in England made a corresponding observation when studying the different eras of technical regulation and

competitive success between companies in Formula 1 car racing; technological evolution often means competitive revolution [45].

In the era of ubiquitous technology, these rules of the game change more often than ever before, so unforeseen entry and growth opportunities are available but so are the opportunities for sharp decline and death. Following the ideas of Cinzia Parolini [46], entrepreneurial opportunities can arise in various forms of value system re-engineering: Creating new activities into a value system or making some traditional activities is obsolete. In both cases, business model works, if it helps the whole value systems to reduce cost and/or increase the end customer value.

Deloitte [42] also makes a remark based on their reports and research that has spun over a decade: The quality of the high growers is largely based on the quality of their environment. Partners provide talent, expertise, revenue, research, and capital that are needed to fuel growth. Understanding growth of an entrepreneurial company should not forget the entrepreneur as an individual or the individual company that has set a goal to grow, but it should not stop there but look also around them.

To support their listings and aggregate figures of the selected growth awardees, Deloitte has at constant intervals looked at the root causes and affecting factors to grow by surveying the highest management (CEOs) of the high-growth companies.

The listings and company analyses are done by Deloitte in a yearly basis and available over the Internet to all parties interested. CEO surveys do not happen on a yearly basis for all major regions (Americas, Asia, EMEA), but in country level, there are unbroken time series in various countries. To highlight some main contents, here are some excerpts for the 2016 results: Growth continuum, sources, and hindrances of growth among the management of Turkey's Fast 50 technology business growers [43]:

- 85% of the CEOs believed they will maintain the high rate of growth (even though only 42% believed the economy in general will grow and only 9% that economy will grow substantially)
- 70% believed the growth can be continued organically, not by structural arrangements such as acquisitions
- the biggest single contributors to the past growth have been high-quality employees and exceptional/unique products created by them
- 61% believed they will grow their personnel between 1 and 25% - obviously in the digitalized world the growth and employment curves differ
- 64% list HR issues (finding, hiring, and retaining talent) as major challenge to growth
- 39% mention as the top personal challenge raising and delegating responsibility—moving from entrepreneurial management more toward an organization; the second one being reaching profitability—supporting the notion that growth is resource-demanding, and it fires back on profits that will follow only later on, so it is risky.

The finding gives support to the statement that growth is still even in the technology business sphere based on individuals. First, entrepreneurs are willing to explore, create, and take risk, and subsequently, growth is continued in the talented individuals that the entrepreneur is able to attract, motivate, and lead on the growth trajectory.

4. Case study: future growth of an entrepreneurial start-up and its impact on entrepreneurs

In a single case study, Saukkonen and Vanttinen [34, 47] assessed the suitability of models of growth dimensions, sources, and obstacles proposed by earlier research and literature to a case company: an entrepreneurial start-up company providing environmental technology for global business-to-business markets. Researchers used method of qualitative, interview-based data collection among the company's internal stakeholders and external business experts. Through an analysis of the obtained data, researchers drew conclusions of the compatibility of (some) earlier models to the unique case of new company growth.

4.1. How do prior-art models of growth suit true start-ups, specifically one operating in environmental technology business?

As a reflection of results vs. earlier models of venture growth, it seems defensible to state that the dimensions in Wickham model can be pictured from the research data, even in a certain sequential order: First, a strategic choice of (first) solutions to be completed is done. Second, the funding for the implementation needs to be secured, after which the (minimum) organization to accomplish the task is put together. Structural and organizational dimensions of growth combine the internal and external resources: The mission-critical parts are kept in the control of the company and complementary, but less strategic or innovative capabilities are extracted from the partner network.

The four first stages of the model by Marmer et al. were all referred to, but the events did not follow the sequential order. The studied startup company had simultaneous and parallel growth processes. The Greiner model-based discussion of crises stages and sources did not bring up relevant information. The sources of growth from the model by Greiner were clearly easier to discuss: "Customers are currently most important element for company growth" (Owner-Manager OM).

Despite the avoidance of the usage of expressions like "environmental technology" or "cleantech" in the spontaneous discussion, the special characteristics of the business segment were well visible. The specific context contained issues such as:

1. The unavoidable role of regulatory framework, or frameworks, when the company acts in multiple markets and many solution areas. The role of regulations and other interventions by governments and other public authorities serves both as enablers as well as obstacles for growth

2. A company operating in this segment has long lasting and tight connections with their stakeholder network. "You need have customer side for speakers for promoting your technology" (External Industry Expert, EIE).
3. The clock speed in environmental technology business differs from many other fields. The long development time of regulations (that affects the decision-making ability of the firms, suppliers and customers alike) was mentioned earlier as a source of slow clock speed. Other factors are related to the depth and volume of R&D before sales can be done. "Unit cost is pretty high when you are environmental and energy business. You need a real life demonstration, which is working ... then pilot1, pilot2, ½ scaled unit and full scaled unit" (EIE).
4. The specific nature of the financial dynamics in this industry. The capital injections are needed early on, long before the sales revenue starts to act as a source of financial resource but "If we go in as an investor early on, the risks are humongous but so are the potential rewards. If later, the company value has gone up already, so the risk is lower but so is the potential multiple to your investment" (Venture Capital Expert VCE).

4.2. How are dimensions, sources, and challenges of growth interpreted and prioritized?

Despite the findings presented in the Chapter 3.1, where a clear order of the growth dimensions emerged from the data, separating the dimensions from each other seemed artificial to the interviewees. The different fields of the growth are intertwined, and the order of priorities was dependent on the financial status of the company. A single capital injection would have changed both the order and speed in which different dimensions develop. The volatility of a growth pattern is therefore clear.

Strategic decision-making was seen as the key foundation for all other areas of growth across the respondent pool, but views on what makes "growth" in strategic terms differed a lot. For some respondents, growth in strategic dimension was a synonym to having a wider offering, whereas to some, it was more of narrowing and focusing. In enhancing the value of the company to its owners and customers, the innovativeness acts in controversial manners. To attract a portfolio of customers and fulfill multiple needs, strategic choice of having one main solution to offer was regarded as a risky option. "To me having different solutions for different end-users gives more options to customers to choose from" (Sales and Marketing Professional SMP₂). On the other hand, limited resources must be well addressed to limited number of directions, as there is a need for efficiency from early on. Investor view preferred a clear focus: "In early stage, the way you should have a fairly limited portfolio. You better be somewhat single-minded. But all products and services have a life-cycle, so the portfolio needs to grow and renew over time. However, the portfolio growth should not kick in before break-even" (VCE).

One way to impact the business portfolio and also the structure of the revenue streams would be to move from mere product supplies to product-service system (PSS) bundling services to the technology supply and thus allow the company to better fund its development organically: "By adding services like operating the plants on behalf of the customers is a future way of improving the constant cash flow. The margins are different to tech supplies but so is the

predictability. And the purchase threshold for services is lower than that of buying hardware—the latter one has a life cycle of 30 years” (Founder-Owner-Manager FOM). This means that growth models should avoid labeling the firms studied to product or service companies but rather see how those two basic business types can be combined.

One difficulty to adopting Wickham’s model was the networked in which today’s companies operate. Talking of growth only within company boundaries felt falling short: “Ecosystem is needed for real size unit: sustainable production, sustainable fuel supply security, logistics, maintenance ... you cannot do it yourself” (EIE). In manufacturing companies, the trend of outsourcing the manufacturing and thus reducing capital needs has been a long prevailing trend. Based on the case study, outsourcing without holding a control over operations grows the risk. “Own manufacturing is not a red flag to an investor, if that is needed to control the entire process in its critical parts” (VCE). The views of the internal and external interviewees matched in this respect. “Own manufacturing is a strategic choice. I want to reduce the risk by having a clear and firm view on what is happening, I know and can promise the delivery times we can do. This may change over time, but at this point we do want to have a tight grip on the process” (FOM). The usage of subcontractors and many of them may seem a good risk-aversion policy, but it may contain a strain to company resources: “The wider the network, the higher risk of quality issues and delays. And truly managing a supply chain of networked companies is rare and demanding skill” (VCE).

4.3. Entrepreneur’s changing roles and capabilities

The external experts in the sample put more emphasis on the traditional management skills—process and systems management—from early on than in-house respondents. That gives support to Start-Up Genome Report [27] findings that if processes are not efficient and the scaling up occurs, the phenomenon Premature Scaling is a potential misstep on the growth path. A remark made underlined that the processes should not be seen from only engineering angle but instead “There must be a sales process from early on, who sells and how. If I do not get that I cannot invest” (VCE, Venture capital expert). The later decline of the importance of mastering processes and systems (as seen by external experts) should be looked at in conjunction with their views of the changing role of the entrepreneur (Figure 7).

Figures 8 and 9 show how the interviewees—internal vs. external—saw the role of the entrepreneurs to change over different development stages. There were some surprising findings between the two groups (internal vs. external) as well as when compared to the original model by Churchill and Lewis.

The external experts clearly expressed that the ability to delegate has to start early on and owners’ own ability to do starts diminishing also at an early stage. The need to delegate is also a concern of entrepreneurs in the case company: “It’s a dilemma that too much is in our hands and we don’t have enough time to handle everything ... we really in the process how to delegate and to whom, it’s the huge challenge for us” (OM). Ability to delegate is also a part of process management capability, and it also touches the network partners of the company: “To delegate is to co-operate” (Business Development Expert).

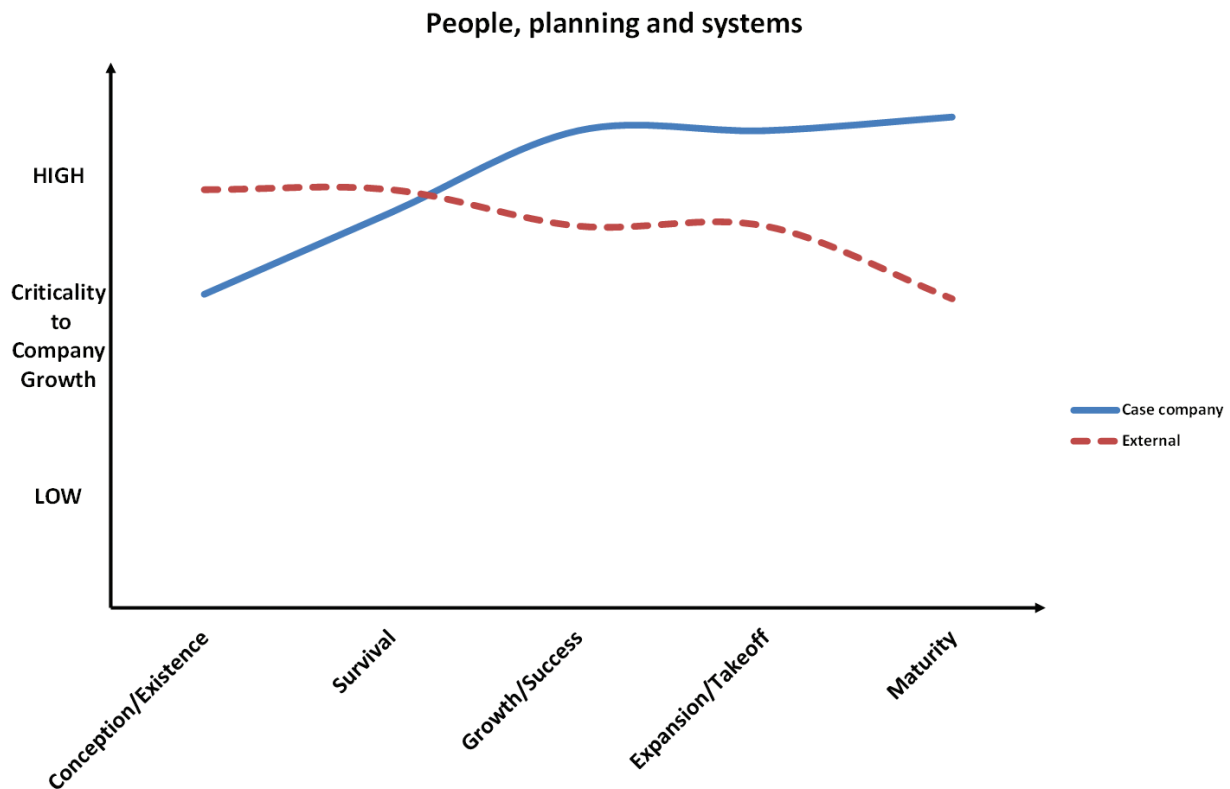


Figure 7. The changing criticality of skills in process, people and systems management following the model by Churchill and Lewis—averages of the graphs drawn by informants in the interview sessions.

An important challenge for the entrepreneurs seems to arrive, when the company reaches some level of maturity. Managing company at that stage differs from start-up management. New skills are needed, and new angles to look at the company must be established. In addition to funding rounds, there should be management upgrading rounds: “Management and funding should update many times in growth company ... management and funding are the sources of crises. Aspiration to company growth is of high criticality to company growth” (Business Development Expert, BDE). If the aspiration diminishes, the company can start to stagnate. Both respondents that have an entrepreneur role in the case company wanted to keep us a start-up mentality in the firm they manage: “I want to see this as an eternal start-up but the term can perhaps not be used for a very long time” (Founder-Owner-Manager FOM). “I don’t want to be in mature company, I want to develop” (Owner-Manager OM). Their views were supported by the VCE “Thing to keep as long as possible from start-up is the entrepreneurship spirit, but it must be combined with growth in leadership skills” and BDE: “renewal is needed in growth company ... is it synonym for continuous start-up”.

4.4. Can the growth be maintained?

One of the iconic figures in 1990s–2010s corporate management and leadership Steve Jobs has been quoted to describe Apple Inc. as an “eternal start-up”. Being the member of the original founding team, Jobs enjoyed and kept up an entrepreneurial relation to Apple despite its growth into a global corporation.

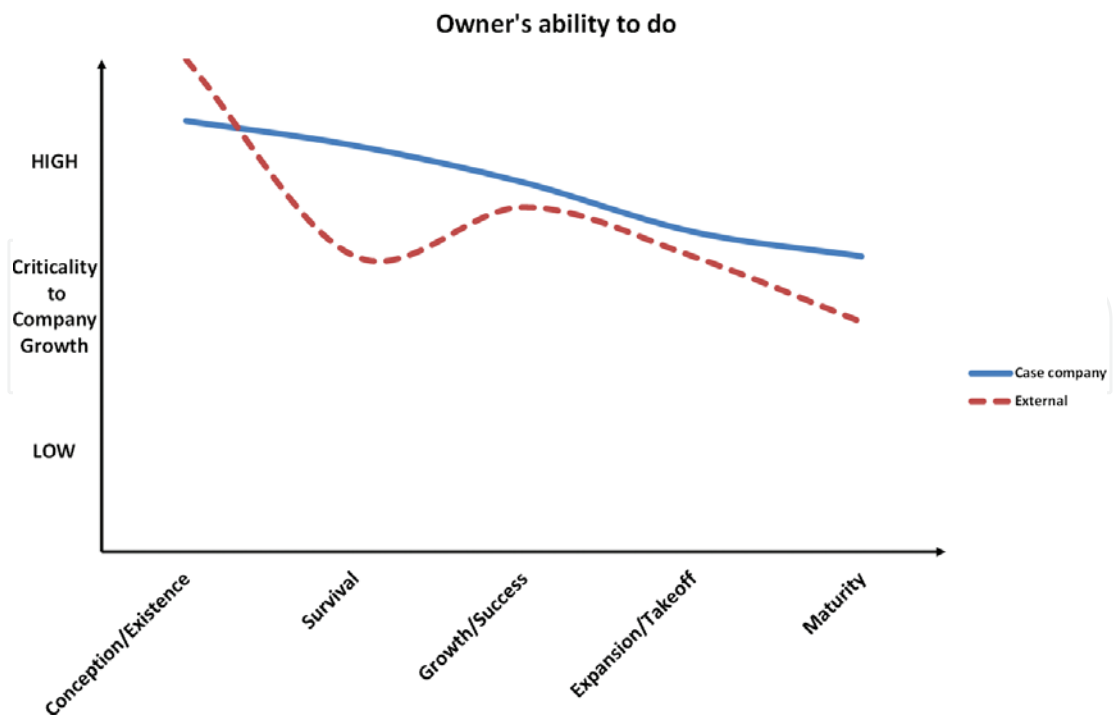


Figure 8. The changing role of the entrepreneur across the development stages (1) following model by Churchill and Lewis—averages of the graphs drawn by informants in the interview sessions.

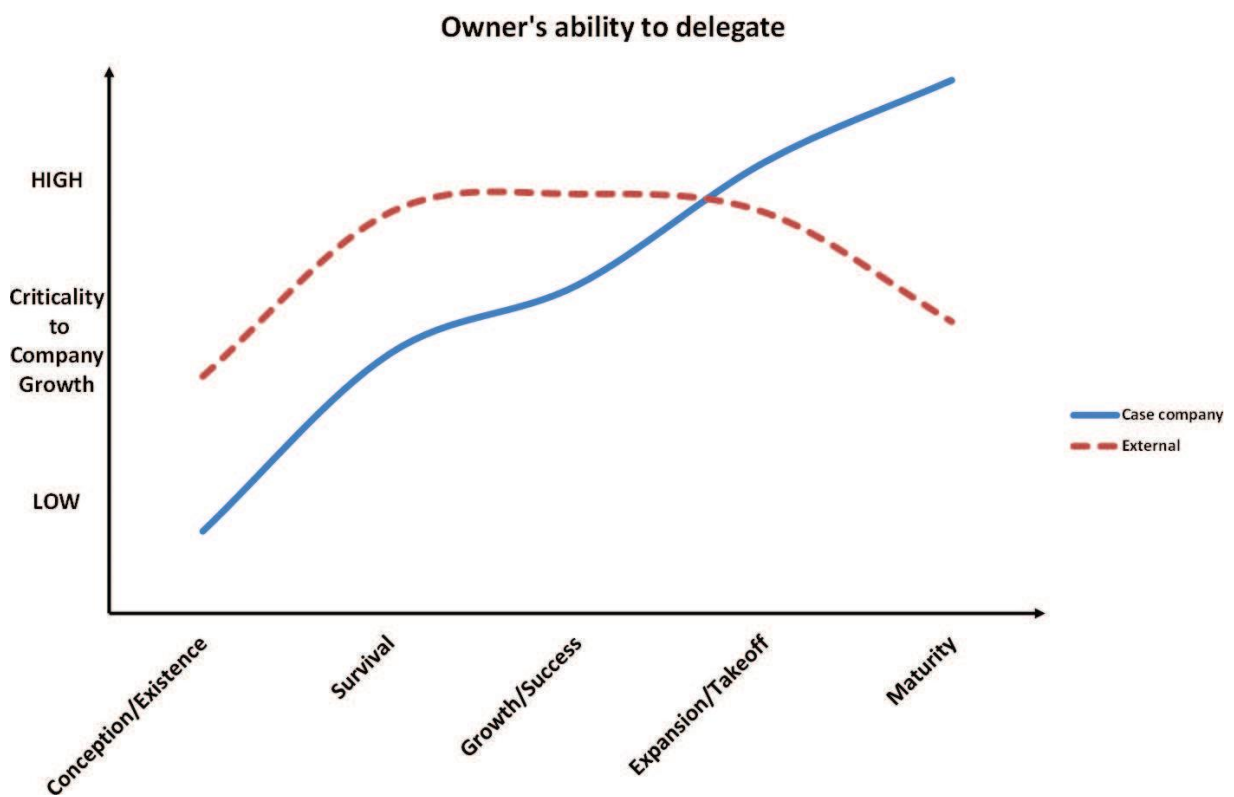


Figure 9. The changing role of the entrepreneur across the development stages (2) following model by Churchill and Lewis—averages of the graphs drawn by informants in the interview sessions.

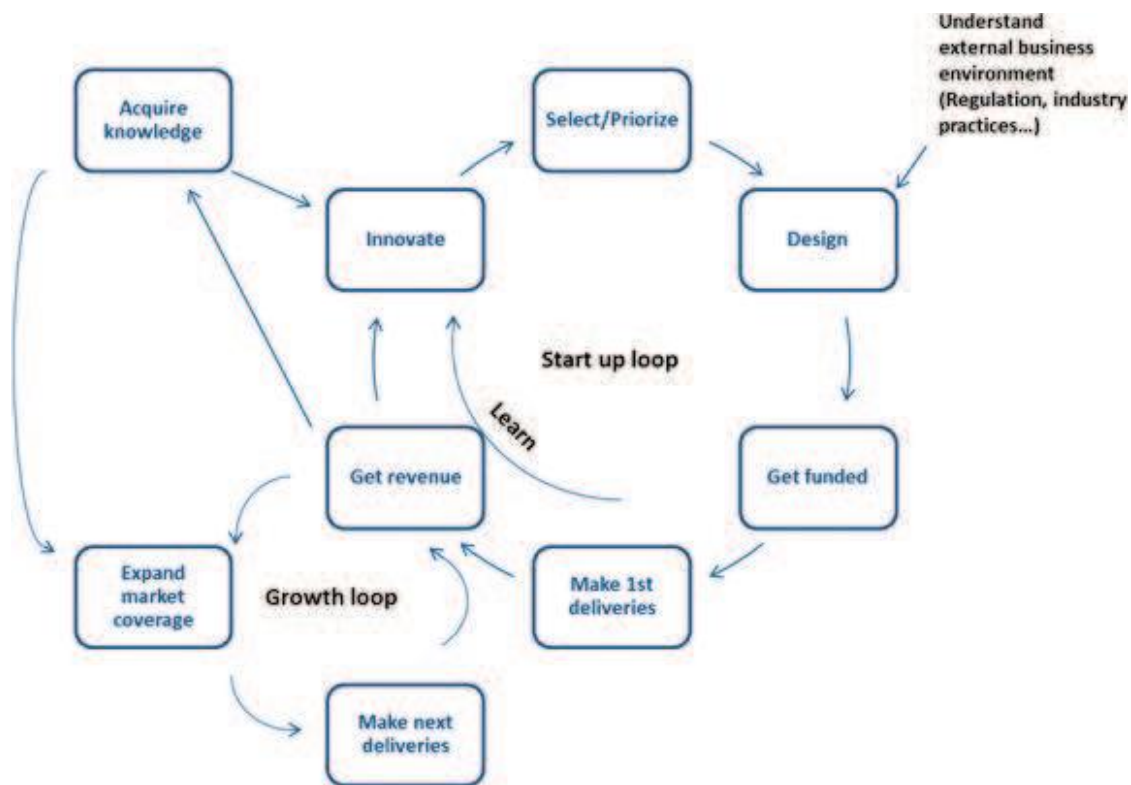


Figure 10. The cyclical two-loop model of growth and development Saukkonen & Vääntinen, [34].

Interestingly, the same echo of never ending growth was heard in the young and small aspiring company studied in the case. Based on the case study findings, it can propose a replacement of linear or at least sequential growth construct model with a more cyclical model (Figure 10). The model highlights the finding that an innovation-based company needs to simultaneously run processes leading to scalable and optimized processes (“growth loop”) and keep on a new venture-type search of novel ideas (“start-up loop”).

5. Conclusions and discussion: future of growth

The conclusions of this full chapter are:

- Growth in an entrepreneurial company is a relative, context—and stakeholders’ expectation—based phenomenon.
- Factors in the resources, market opportunities, and personal aspirations affect the stance taken toward growth as well as its directions and speed of growth. No single model to describe growth in an entrepreneurial firm can be found, the growth has individuality in it. Based on the case research findings, it can be also stated that search for one best model of growth for a single start-up venture is not a viable effort. Instead, various models should be studied and utilized. Researchers as well as business developers aiming at growth should identify the most relevant elements of these models to the case in question

as well as the context in which the companies operate. Industries have their specific features that should be woven into the models for company growth in that sector.

- The models of growth do have their role: the phenomenon is better understood and acted upon by having a wide and versatile supply of models that contribute to the understanding of the phenomenon and individual cases. The research findings and the proposed new cyclical model of start-up growth in environmental technology business developed give support to the view presented by Levie and Lichtenstein [20]. Stage-based models have clarity and structure but reflect poorly growth business reality that is made of uncertainty, loops, and flexibility. Newer models such as the one by Marmer et al. acknowledge the importance to pivot when necessary and to find new directions by revisiting the work done in earlier phases when the development stagnates. The growth stagnating can be a result of both internal reasons as well as external feedback.
- Growth should be seen as a vehicle of reaching something by action rather than as an end result of action.
- Companies in the growth mode identify the sources, enablers, and obstacles to growth largely in a same manner, giving support to views that studying growth companies can serve as an agent for future growth.

In addition, it is not enough for companies to recognize the developmental phase they are in but also to develop and implement strategies to tackle the challenges viable to the industrial context they live in and taking in account the resources of the company, its entrepreneurs, and value network.

Various megatrends suggested to act as drivers of global change such as Globalization, Digitalization, Acceleration and Network organizing [47, 48] can be seen to offer wider and faster opportunities for growth than the past periods of time. New industries and markets are developed to a remarkable size at higher and higher speed. In the world of virtual goods memes, network externalities, low (capital) barriers to entry and viral spreading all seem to point out that growth is better available for all than we are used to.

An example of such a mushrooming market is mobile gaming, which in the first quarter of 2017 showed 53% growth to previous year [49, 50]. The global yearly revenue at the sector globally was predicted to reach 46 billion USD for 2017 and to grow to 64 billion by 2020 [51]. The other side of the coin of hypergrowth is the hypercompetition. It can be estimated that the supply of the games available at this moment (mid-2017) exceeds 1200 new games *per day* coming to the market via the two main platforms iStore and Google Play. This means a monthly growth in supply of approx. 40,000 new options for customer to choose from on top of the existing ones. Naturally new products and companies can only succeed, if the customers abandon earlier games they played. Major trends in the future of growth might be *polarization* and *volatility* of growth. The new world may give an unprecedented opportunity to grow for some, leaving a very minor role for the rest. Ideas of reaching massive consumer bases with low-cost pricing strategy applied, e.g., by Spotify for streamed music leaves very limited opportunities for profitability to nonhypergrowers.

Technological advancement is another Janus-faced force that affects firms aspiring to grow. The global availability of digital technologies and the opportunities they give to spread the

new solutions seem to favor growth. Simultaneously, the abundance of technologies is making the right choices regarding technologies both complicated, risky, and short lived. The megatrend of acceleration means the birth and growth happen at faster pace but so do decline and death. The accelerating pace of change referred as “increased clockspeed” by Fine from [52], and the increase in the sheer amount of potentially transformative and often intertwined technologies has made technology anticipation more complex. Global ICT consultancy firm Gartner publishes their “Hype Cycle curves” of emerging technology areas and particular technologies. As the representative of Gartner, J. Fenn coined the purpose of them: “Hype Cycle for Emerging Technologies targets strategic planning, innovation and emerging technology professionals by highlighting a set of technologies that will have broad-ranging impact across the business” [48]. Gartner publishes both broad and more specific Hype Cycles. There are close to 2000 individual technologies under Gartner’s radar [53].

Investing money and effort to technologies in their early stage sounds a risky choice. But it is also risk baring for a company to wait until a technology reaches the more predictable development stage. Acting first in a stage where more and more insights of how the technology can benefit the company start to crystallize, and the whole value chain and customer-base means the competitive advantage potential for a company has vastly diminished. One interesting line of research could be studying the means entrepreneurs are trying to balance the growth of business value and the risk that growth bears. One approach to this direction is the framework by Skok [54] based on his view that increasing of the value and reduction of the risk are key targets for any start-up management. He linked some key events or artifacts (**Figure 11**) that lead to success in relation to these two targets. Empirical research on that framework would

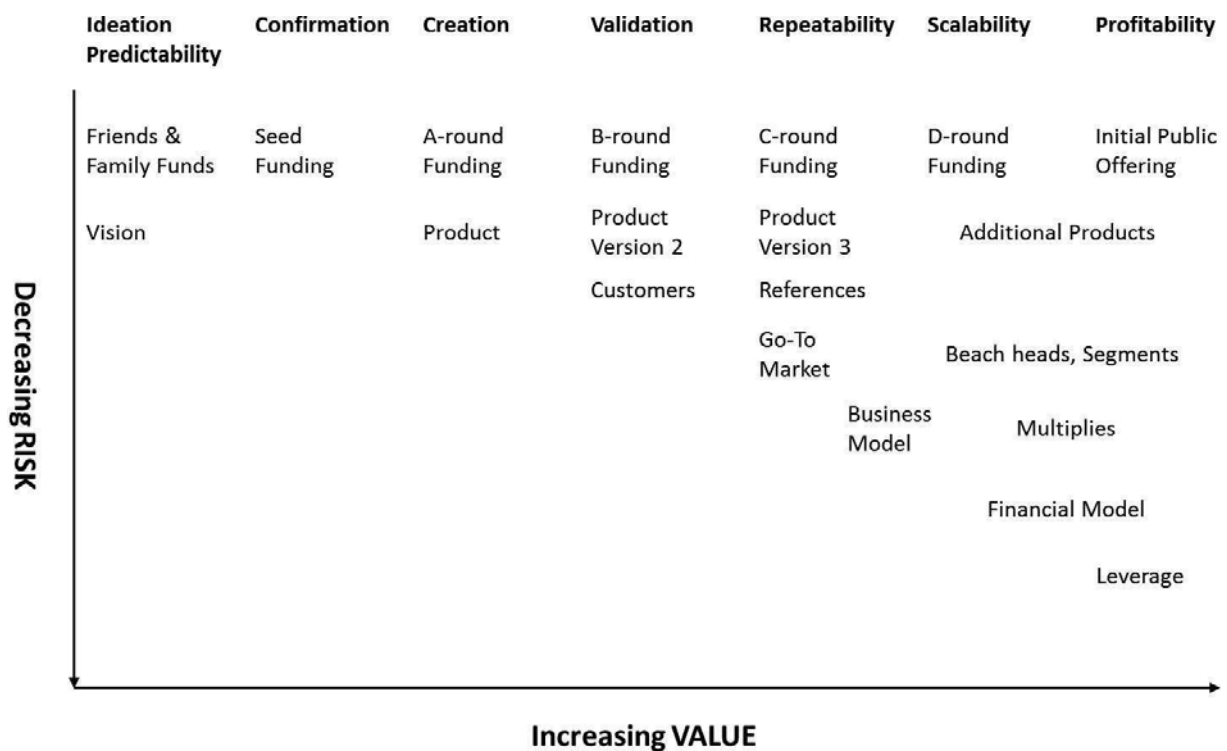


Figure 11. Key artifacts and events in risk/value framework across development stages (Skok [54]).

however require an opportunity for a longitudinal study with close involvement to the decision-making process of the studied growth companies.

Perhaps, growth has never been democratic but in the future perhaps even less so. The shortened life cycle of products may also lead to short-living companies. We all know “firefly products” that shine bright and short. Will the business climate of future be apt for firefly companies as well?

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