

The method of entrepreneurship

- and the role of science parks

Entrepreneurs are consistently being called upon as drivers of the modern economy. Sadly, 90% of all new knowledge intensive entrepreneurs fail. Despite these facts, there is limited guidance from the entrepreneurship literature as towards how new ventures should be build to overcome the challenges of new venture formation. In this paper, we argue that entrepreneurship should be thought of as a method and that a selection of simple processes and techniques can support the new ventures in their struggle for success. Furthermore, we argue that incubators (e.g. located in science parks) are well positioned to support entrepreneurs in the process from invention to business and we provide an example of how our underlying philosophy has been operationalized in Accelerace - an incubator program located in Symbion Science Park.

Introduction

Living in a global economy, where knowledge intensive entrepreneurial efforts have become increasingly important to promote economic development, it is surprising that we know little - if anything - about the act of building and helping new entrepreneurial ventures to succeed. For decades, we have been researching, teaching, stimulating and practicing entrepreneurship and yet, there is little evidence to suggest that any of our efforts carry positive net present value. The vast majority of research and approaches to entrepreneurship are anchored in causal approaches based on management-theories developed for the purpose of established organizations however, a new frontier of research, suggests the benefit of effectual approaches. A fundamental difference between the two approaches is that causal logic is based on the assumption that we can predict the future and thus navigate accordingly, whereas effectual logic is based on the assumption that we can shape the future through our actions and therefore have no need to predict it.¹

In this paper, we start off by introducing some of the latest findings in research related to learning and teaching of entrepreneurship. We then discuss a methodological approach to entrepreneurship before we take the liberty to build on effectual logic in order to introduce a universally applicable framework grounded in academic research and practical experience from Accelerace at Symbion Science Park. The framework represents an effort to describe the minimum collection of independent processes that we believe defines the core building block of entrepreneurship - the entrepreneurial cycle.

Finally, we provide a description of a possible future path for science parks, namely the establishment of an on-location incubator to the benefit of entrepreneurs, science parks and governments seeking to strengthen the entrepreneurial infrastructure. Accelerace represents an attempt in that vein and is administrated by Symbion Science Park. In brief, the program takes form as a four month training course for the most promising new ventures in the region. It runs twice per year with an intake of 15 new ventures per round. We shall return to elaborate further on the program, at the latter part of the paper. First, we will present our thoughts on the ability to "learn entrepreneurship".

¹ Sarasvathy, S. 2001. Causation and effectuation. Academy of Management Review 26(2): 243-263

Learning entrepreneurship

A long standing tradition in psychology has demonstrated the persistence of learning curves, defined by the improvement in performing a given task as a function of cumulative experience. The learning curve of individuals may be described as a type of learning transfer. If learning curves are deconstructed into the individual units of output, the overall performance at any unit can be defined as some amount of performance that is derived from learning in the previous units and transferred to the current unit, plus some incremental increase in performance due to new learning. The learning that is transferred along can be further deconstructed into content knowledge and the learning of methods. The latter implies that individuals develop a method for learning and thus increase their ability to learn over time. For example, individuals may learn broadly applicable approaches to problem solving.²

Research within the learning curve literature tends to draw on classic work that documented continuous improvement in input-output ratios (e.g. quality, speed or performance) resulting from a growing stock of experience, suggesting that practice makes perfect. Until recently it has been questionable whether the principles of learning curves would apply to the complex and dynamic context of entrepreneurship. However, in a recent study based on a sample of 65.000 knowledge intensive entrepreneurs followed up to 14 years, Toft and Wennberg (2010)³ found evidence to suggest that the learning curve theory to some extent does apply to entrepreneurship. At the core of their paper is the notion that experience - and in particularly experience related to the focal task - improves entrepreneurial performance. Thus, to promote entrepreneurial success, we should consider how to provide the two components of learning curves; content knowledge and entrepreneurial methodology.

Reframing entrepreneurship as a method

Before we continue, we would like to distinguish between treating entrepreneurship as a process and a method. A process implies that you will get to a specific destination through a predetermined sequence of operations. This approach is in contrast to a method which attempts to solve a problem by finding successive approximations to the solution starting from an initial hunch. According to Neck and Greene (2011)⁴ entrepreneurship is often taught and approached as a process - a linear process of identifying an opportunity, understanding resource requirements, acquiring resources, planning, and implementing.

The word “process” assumes known inputs and known outputs as in a manufacturing process. For example, building a car on an assembly line is a manufacturing process. You know all the parts, you know how they fit together, and you know the type of car you will have at the end. A process is quite predictable. Entrepreneurship is not predictable. On the other hand, practicing entrepreneurship as a method assumes the need to act to understand because we can’t predict the future. For example, we don’t really know the need of our customers until having investigated the need empirically. A method represents a body of processes and techniques; therefore, practicing entrepreneurship as a method simply implies that the entrepreneur understand, develop, and practice the processes and techniques which are suitable for entrepreneurship (Neck and Greene, 2011).

² Schilling MA, Vidal P, Ployhart RE, Marangoni A. 2003. Learning by doing something else: Variation, relatedness, and the learning curve. *Management Science* 49(1): 39-56

³ Toft, R. and Wennberg, K. Working Paper. Barriers to learning in Entrepreneurship. Presented at Strategic Entrepreneurship Conference, November 2010.

⁴ Neck HM, Greene PG. Entrepreneurship Education: Known Worlds and New Frontiers. *Journal of Small Business Management* 49(1): 55-70

Figure 1 contrasts the perspective on entrepreneurship as a process versus a method.

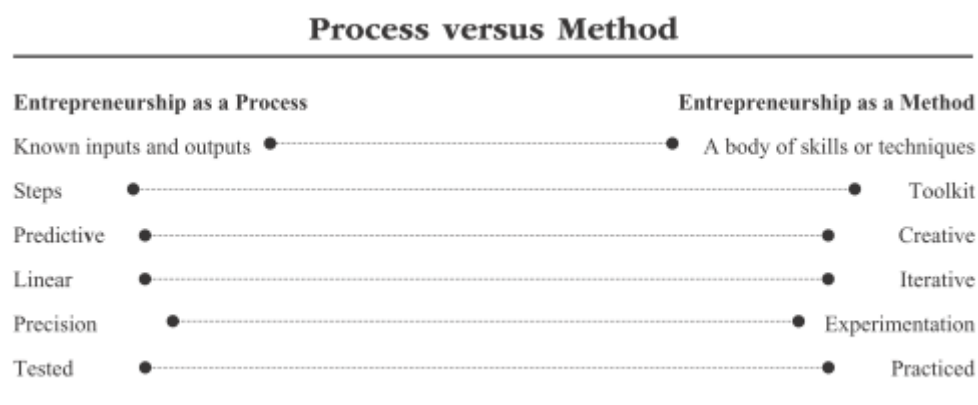


Figure 1: Process compared to method. Adopted from Neck and Greene (2011)⁵

The writing of a business plan provides another good illustration of the difference between a process and a method. For many years, writing a business plan has been the prevalent approach to teach and learn entrepreneurship. Writing a business plan is often considered as a process where the outcome is a document that presents an overview of the contemplated business. While this may be useful to attract potential investors, a static business plan does not lend itself well as a tool by which entrepreneurs can successfully develop their ventures. Arguably, a static business plan may even impose a false sense of comfort and a lack of adaptability which have proven to be detrimental to the success of new ventures.

If a business plan should provide any value in relation to the development of a new venture, and not only serve as a teaser to attract potential investors, it must be a working document which reflects the current level of understanding and explicate the assumptions which are critical to the future success of the venture. Therefore, the challenge of writing a business plan is not just to fill in the blanks. The challenge is to figure out the content which will maximize the outcome of the venture; what is important, what do we know, what do we not know and how do we get to know what we don't know. Figuring this out on a consistent basis requires a universally applicable method which we will introduce in the following.

The entrepreneurial cycle: An action-learning method of entrepreneurship

Approaching entrepreneurship as a method means practicing a way of thinking and acting to test a set of assumptions that are crucial to the existence of the venture. As with scientific disciplines, the method requires entrepreneurs to collect evidence to replace assumptions with facts. For example, it could be argued that most entrepreneurs would benefit from entering a dialog with their costumers about their preferences instead of assuming their preferences. The reason is that false assumptions - when not discovered in time or with the right approach - will make the difference between failure and success in new ventures.

Based on the latest research within the field of entrepreneurship and experience from the incubation of more than a hundred new ventures in Accelerace, we have developed the "entrepreneurial cycle" - an iterative method of entrepreneurship. In practice this is an iterative action learning model, which consists of four independent processes; Gather information, analyze, conceptualize and act. The method is presented in Figure 2.

⁵ Neck HM, Greene PG. Entrepreneurship Education: Known Worlds and New Frontiers. Journal of Small Business Management 49(1): 55-70

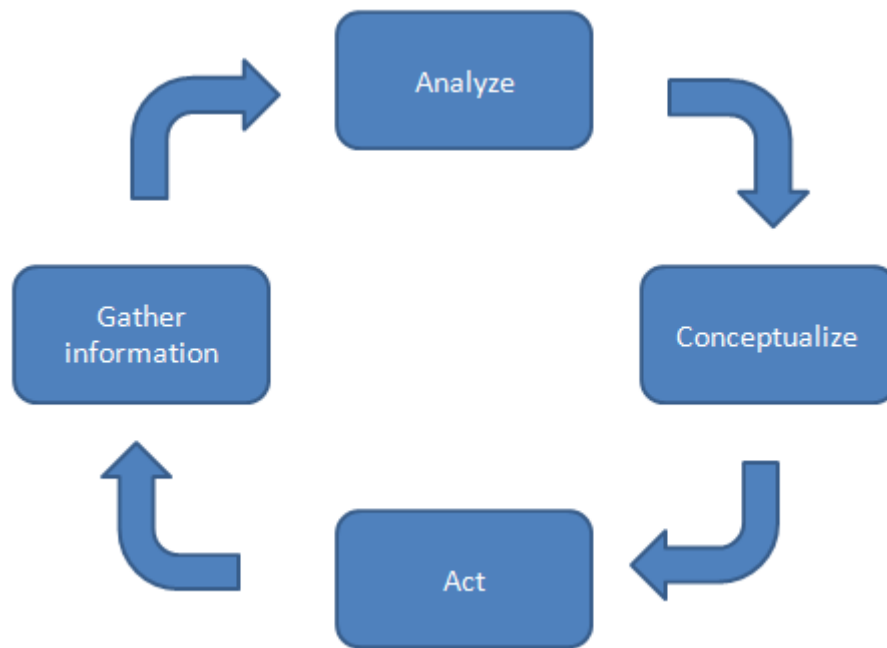


Figure 2: The entrepreneurial cycle

These four independent processes, which by our interpretation collectively make up the smallest possible mental model of entrepreneurship, can each be defined as:

- Gather information: Collect empirical information based on inquiry or systematic examination of the real world
- Analyze: Examine and evaluate the feedback derived from empirical investigation, e.g. by separating information into parts and evaluate their individual performance and interrelations
- Conceptualize: Develop new concepts based testable hypotheses, e.g. the statement of an idea, expressing how something might be done or accomplished. Concepts may stem from previous experiences or inspiration from stakeholders, e.g. competitors in the marketplace
- Act: Test the concepts by interacting directly with stakeholders (customers, consumers, suppliers, investors etc.)

As illustrated Figure 2, the entrepreneurial method becomes an iterative cycle of independent processes which are assembled to replace critical assumptions with evidence through empirical investigation. In this case, the term “evidence” should not be interpreted as a quest for finding the absolute truth, but rather it is to illustrate that enough empirical investigation should be conducted to make an appropriate decision. Naturally, new evidence will give birth to new assumptions that require empirical investigation and so forth in infinity.

In practice, the entrepreneurial cycle should be iterated as often as possible for the entrepreneur to progress at based on rational decisions. As such, the process could be iterated several times a day on any matter and by every individual in any new venture. Importantly, the iterative method should strike a balance that accommodates the need for speed and minimum resource requirements, while providing enough evidence upon which future decisions can be based. The closer to the entrepreneur get to the truth, the better decisions he will be able to make. Thus, the challenge for the entrepreneur is to optimize this method so that the venture goes through as many cycles as needed within the limitation of time and resources. The basic idea is that the number, and quality, of iterations - at least in part - determines the success of the venture. Not all of the actions and experiments lead to valuable information, but collectively they will help the entrepreneur to make the right decisions. Needless to say, mastering the entrepreneurial method requires practice.

In a rapidly changing world, we need to develop methods that stand the test of radical changes in context and content. Learning a method may therefore be more important than learning content because content knowledge is likely to perish (Toft and Wennberg, 2010)⁶. The entrepreneurial cycle is thus argued to be a universally, generalizeable approach to entrepreneurship at its most fundamental level - the essence of entrepreneurship - and therefore a method for navigating through a complex world of unpredictability. As such, we argue that the entrepreneurial cycle:

1. ... can be practiced and taught
2. ... is useful for entrepreneurs at all levels of experience
3. ... is useful across all types of contexts (although particularly important in dynamic contexts)
4. ... is useful in organizations that intends to act entrepreneurially

In the next section we propose a couple of broadly applicable techniques which complement the entrepreneurial cycle in terms of speed of iteration and quality of evidence.

Techniques to support the entrepreneurial cycle

A number of techniques, presented by knowledgeable scholars, may be leveraged and learned to promote the benefits of the entrepreneurial cycle.

Effectual Logic

In an effort to reduce the time and resources required to take action the research on effectual logic (Sarasvathy, 2001)⁷ has been developed to support decision making in new ventures. Basically, the research has identified patterns among “expert entrepreneurs” who have profound experience with entrepreneurship in contexts characterized by complexity and uncertainty.

Central to effectual logic is that the point of departure for any action is the individual entrepreneur. As such, the entrepreneur is advised to reflect upon; who I am, what I know, and whom I know, and then let these reflections sketch out a direction for inquiry to shape the venture. Using this technique, the entrepreneur can benefit from fast, resource-light and reliable investigation on any point of interest. As such, this technique lends itself well to the entrepreneurial cycle because it increases the speed of investigation while drawing little from the available resources. Additionally, it indirectly promotes the role of incubators which we shall return to in a later section of the paper.

A second, an important element of effectual logic, is the focus on stakeholders and partnerships. To a large extent, the entrepreneur is advised to let stakeholders (sharing mutual interest and reward) shape the trajectory of the entrepreneurial opportunity. For example, the assumption is that an entrepreneur who engages with stakeholders will rapidly approach a real market demand in the marketplace (without the need to predict a demand) and thus increase the likelihood of success. Thus, in accordance with the effectual logic and to reduce the risk of making false assumptions, we propose that information gathering and conceptualization should take place in close collaboration with stakeholders, preferably in terms of partners with mutual benefits from the venture.

Getting to Plan B

In a recently published book; “Getting to Plan B”, Mullins and Komisar (2009)⁸ present a process which is specifically designed to test an initial business idea.

⁶ Toft, R. and Wennberg, K. Working Paper. Barriers to learning in Entrepreneurship. Presented at Strategic Entrepreneurship Conference, November 2010.

⁷ Sarasvathy, S. 2001. Causation and effectuation. *Academy of Management Review* 26(2): 243-263

⁸ Mullins, J and Komisar, R. 2009. *Getting to Plan B: Breaking Through to a Better Business Model*. Harvard Business Publishing

Focusing on five elements which are deterministic for the economic viability of any new venture; its revenue, gross margin, operating, working capital, and investment model, the authors suggest a number of techniques which reduce the risk of failure:

- Investigate the opportunity in comparison with existing models to replicate what works (analogs), avoid what doesn't (antilogos), and improve conceptualization wherever possible
- Identify the untested assumptions (leaps of faith) that are critical to the success of the venture and analyze these leaps of faith systematically (dashboarding)

These techniques should be conducted and followed up by fast, inexpensive, data-driven experiments to either support or reject critical assumptions (leaps of faith). Accordingly, the entrepreneur is able to investigate these assumptions on the basis of easy accessible, resource-light inspiration and evidence and thus, benefit from a strengthened opportunity to make well-informed conceptualizations.

While both "Effectual Logic" and "Getting to Plan B" provide examples of techniques that can readily be applied incorporated to the entrepreneurial cycle, it is important to stress that this is by no means an exhaustive list. Many other techniques and approaches can be thought of, developed, taught and practiced to eliminate risk in the entrepreneurial process.

We now continue to provide a description of the Accelerace program in Symbion Science Park. We relate the entrepreneurial cycle to the role of incubators (e.g. in science parks) to argue that incubators and science parks are well positioned to take part in the entrepreneurial infrastructure.

A gap in the entrepreneurial infrastructure

It is broadly acknowledged that incubators and science parks can facilitate the development of networks to support new ventures. Reaching out and interacting with broader networks has the benefit of generating new input to the ventures involved. Grounded in the notion that new ventures need input to succeed, a number of counseling services in Denmark - and in any other country seeking to promote entrepreneurship - has been tested. In our opinion, this does not solve the issue. There is a profound need for initiatives that can help entrepreneurs to transform inputs into patterns, concepts, and actions. This is a deplorable gap in the entrepreneurial infrastructure which is in our opinion often neglected. Therefore we argue that focusing solely on collecting input but not on translating those inputs into testable concepts, doesn't help the entrepreneurs far enough on the path to success. The whole entrepreneurial cycle should be iterated and incorporated into the daily operations of new ventures. Therefore a critical gap in the entrepreneurial infrastructure is a program designed to provide entrepreneurs with both content knowledge and methods to succeed. At Accelerate, it is our ambition to design a program to fulfill this role.

Accelerace: An incubation-program within Symbion Science Park

Over the past four years Symbion Science Park and its partners have developed Accelerace - a national training and development program targeted to early stage, high potential new ventures. The aim of the program is to support new ventures and scientific projects with commercialization of their products as well as train the entrepreneurs involved in the method of entrepreneurship through apprenticeship.

In brief, Accelerace is a four month, camp-based training course for the most promising technology-driven start-ups. It runs twice a year with an intake of approximately 15 new ventures per round. The ventures are selected into the program on a basis of a brief business plan and a presentation in front of a selection board consisting of potential investors and industry experts. The selection board is asked to score them on several dimensions related to team, technology and market potential. During the four months of the program, the selected entrepreneurs will receive the benefit of having a half-time entrepreneurially experienced consultant working alongside the new venture to help drive towards a position where they are capable of attracting investors. Also, a

number of camps with international speakers are organized to provide learning and direct feedback to each of the companies.

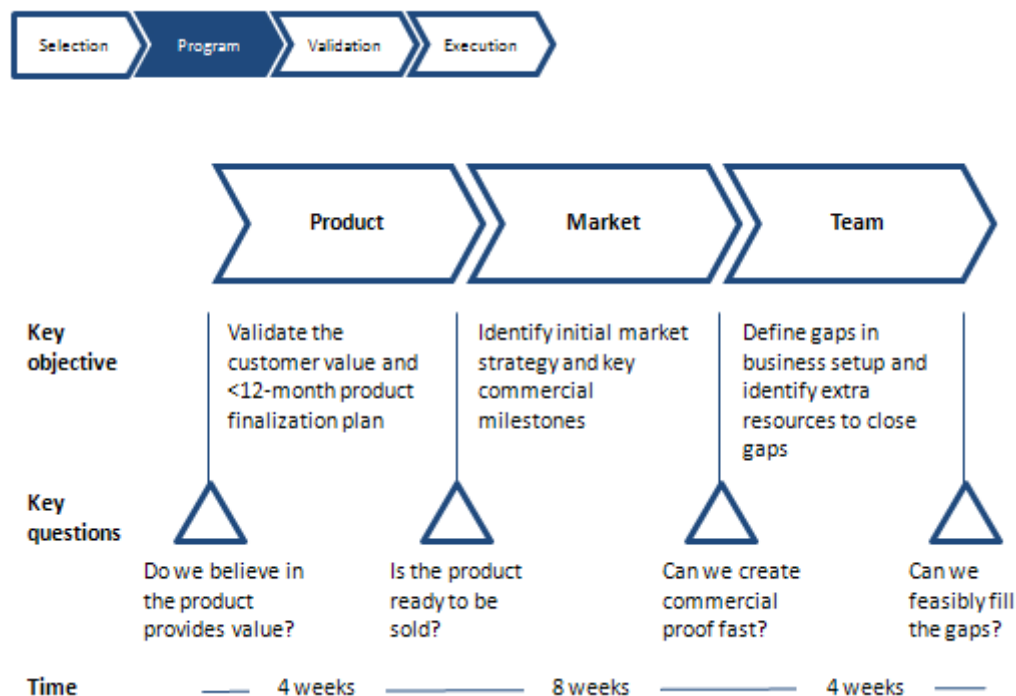


Figure 3: The structure of the Accelerace program

Accelerace is deeply grounded in the philosophy underlying the entrepreneurial cycle and has taken several initiatives to teach the ventures selected into the program how to adopt the method into the daily operations. As such, Accelerace represents an attempt to organize the learning process in an efficient manner, which should increase the odds that the venture will be successful and thus can attract investors.

At the time when the ventures are entering the program, almost none of them are capable of raising substantial amounts of capital from outside investors. This inability naturally reflects the fact that the entrepreneurs can't convince investors that their business will show results which investors would expect to be reasonable for the perceived risk. Thus, they all have "gaps" in order to prove that their business has large potential for growth and profitability and that the founding team is capable of addressing the "gaps" to satisfy the requirements from investors.

The "gaps" are unique for every company but are generally related to either team, market or technology. To help entrepreneurs identify and address these gaps, we have engaged with the leading seed-stage investors in the region to develop an overview of what we believe could be termed "company excellence". Thus, company excellence is a set of criteria which the participating companies should fulfill in order to attract substantial amounts of external financing. The underlying rationale for having a company excellence framework is to set forth clear directions for each company in order to attract investors. Thus, in practice the goal for Accelerace is, in close collaboration with the entrepreneur, to bring the companies to a position where they fulfill these gaps, starting by identifying gaps and subsequently taking the necessary action to close them.

Co-development: entrepreneurs and investors

To increase the likelihood that new ventures will obtain financing from external investors upon participation the program is designed to establish close relations and collaboration between entrepreneurs and potential investors from the very beginning of each round. In practice, a selection board comprised of a broad range of investors from the region is asked to evaluate and select the companies which they believe could develop to become attractive investment cases. Their impression is based on a brief written introduction to each company as well as a 15 minute pitch by the founder. In return, the investors commit themselves to support and validate the actual development process through the program and eventually invest if they continue to have confidence in the projections of the company and the team.

The close relationship to investors has also become a key resource for lead generation. Investors see huge numbers of aspiring entrepreneurs and will only invest in few, however with Accelerace, they have an opportunity to direct the promising entrepreneurs, which does not fully meet the investment criteria to Accelerace who can then help them to develop and hopefully succeed.

Because the selection of entrepreneurial successes has proven a difficult challenge (supported by limited returns on venture capital as an asset class), Accelerace has adopted a strategy where a larger number of new ventures are selected to participate into the program well aware that not every company will succeed. During the course of the program the business developers of Accelerace work closely with the companies and thus obtain a feeling for the real potential of each venture.

How are "gaps" closed?

As mentioned, the philosophy in Accelerace is that the closing of gaps is a method. Yet, a method that is full of uncertainty and complexity. For example, while it might be easy to identify that a company does not have a clear understanding of which market they should enter, it immediately gets more complicated when we seek to actually understand the market, its segments the value chains etc. Thus, identifying the appropriate target market segment, the appropriate distribution channel and then execute in order prove the market potential to investors, requires extensive knowledge, training and effort. Because this process is full of unpredictable uncertainties we argue that the entrepreneurial method is crucial for the development of companies. This is where the entrepreneurial cycle comes into play.

"Company X" from the Accelerace program is an example of a newly established venture which has adopted the entrepreneurial cycle as a method to navigate through their many different market options. The venture provide a web-based mobile coupon and ticketing system that allows coupons and tickets to be sent and redeemed without installation of hardware at the point of sales or software, nor does it require any software to be installed on the mobile phone. Entering the Accelerace program in 2009 the venture had spent a year developing the software and the initial go-to-market strategy. The plan was to target large concert, event and ticket organizations in Scandinavia and from there on conquering the international markets. However, the company had not succeeded in validating the strategy.

Using the entrepreneurial cycle as a reference frame the company and Accelerace started out to investigate the chosen market, the different segments and customer needs. After several meetings with customers, industry experts and key opinion leaders, analysis made it clear that it was an extremely competitive market and that the value proposition of Company X was not strong enough. However, after several iterations through the entrepreneurial cycle including a countless number of interactions with stakeholders, a new concept was developed to head for great opportunities in the mobile coupon market. Entering the market for coupons would require some product and technology adjustments, however due to Company X thorough understanding of customer needs they were able to take a step backwards in the development phase, and only three months later they were ready to commercialize a modified product. This

time they were targeting established and leading mobile marketing and digital advertising agencies with a product that matched the needs of the customers.

The example shows how Company X was able to readjust their commercial strategy and technical concept without spending unnecessary resources on wrong decision. However, for Company X the process doesn't stop here. Systematic analysis of the many inputs from stakeholders and strict prioritization has continued to enable new product development with high levels of success. One example is that the company has changed their position in the value chain which has increased the number of customers dramatically and further strengthened their market position. Today, the company has fifteen employees, solid customer traction, a strong partner network and large reference customers within retail such as Coca Cola and McDonalds. Company X illustrated a venture which has assimilated the entrepreneurial cycle into their daily operations and as a result, have proven their ability to adapt to changing market conditions.

The notion that the development of successful businesses should be considered as a method has a number of commonalities with scientifically acknowledged learning process theories⁹ and is further supported by a number of real life examples. If we consider some of the most successful companies in the world, such as Google, there seems to be a discrepancy between their initial business plan and their business model which actually turned out to be successful. Only few companies rely on the original business plan all the way to success. In fact, research has shown that successful entrepreneurs generally change course of their new ventures radically 2-3 times before achieving success.¹⁰ Accelerace is organized to handle the iteration of entrepreneurial cycles which leads a given company to a state where they have either validated their original business plan or moved from the original business plan to a modified business plan which will attract investors. As such, the task of Accelerace is to optimize this method for the companies to efficiently go through as many iterations of the entrepreneurial cycle as possible. We believe that the number and quality of iterations significantly contributes to the level of success; First, iterations will promote adjustments to the original business plan, which by experience are likely to occur in most successful ventures, and second, iterations lead to evidence which eventually will attract investors.

The ability to adopt and professionally manage the entrepreneurial cycle depends on several types of skills. Although our knowledge is limited on this point, we dare to suggest that three main types of skills are in play. First, there is probably some kind of innate skills. Like in sports, we believe there is an element of skills which can be difficult to explain and learn, but possible to spot. In entrepreneurship, a couple of examples could be good interpersonal skills or high level of self-discipline which are notoriously difficult to learn. Second, there is probably also an element of discipline skills which can be defined, codified and to some extent learned. The literature is full of examples such as good writing, interview and communication skills. Finally, we suggest that content and process knowledge from education and experience makes an impact. For example, there are significant differences between founding a new venture within drug discovery compared to founding a venture which design smartphone applications, and therefore also on how the entrepreneurial cycle can be iterated. Individuals who have profound knowledge of the domain in which they are operating will thus be able to avoid a number of pitfalls and progress at a faster speed than individuals without domain-specific knowledge. Specific domain knowledge could be in terms of knowledge about specific individuals, organizations, value chains and regulations which could potentially benefit the outcome of each iteration. A central initiative in Accelerace is therefore to develop methods and tools to identify skilled entrepreneurs, help them to further develop their skills and supply the specific content and process knowledge which is crucial to succeed.

⁹ Sarasvathy, S. 2001. Causation and effectuation. *Academy of Management Review* 26(2): 243-263

¹⁰ Shane S. 2003. *A General Theory of Entrepreneurship*. Cheltenham: Edward Elgar

The so called "valley of death" of entrepreneurship is probably as much a gap in terms of resources and skills as it is a gap in terms of financing - although the two elements typically are interrelated. Accelerace is designed to help the entrepreneurs close this gap and thus increase the likelihood of attracting investors by:

1. Identifying gaps between the status at entry into the program and where the company needs to be to attract external investors
2. Organizing a cost efficient plan that clearly explicates how gaps should be closed. This plan is validated by potential investors, i.e. the founders and potential investors agree on actions
3. To temporarily compensate for a lack of skills and resources to ensure that an effort to close the identified gaps can begin
4. To identify entrepreneurial talent and accordingly seek to develop their skills in order for them to independently manage the closure of gaps in the longer term

Besides these four points, Accelerace has an important task in helping the companies to define clear visionary strategies which can help to attract bigger investments to the company and thus exploit the international potential.

How is this program structured in practice?

To support the adoption of the entrepreneurial cycle and the development of the entrepreneurs' skill-set the program has been structured around four pillars:

1. A camp model, where international facilitators introduce the entrepreneurs to specific methods and tools which they can use in the operation of their personal ventures. Additionally these camps allows for the entrepreneurs to get direct feedback from the facilitators which usually posses deep levels experience as entrepreneurs
2. An apprenticeship model, where each venture selected into the program is assigned an experienced entrepreneur (a consultant employed by Accelerace) to provide input, but also to compensate for the immediate lack of resources and competencies needed to accelerate the venture. Thus, the consultants of Accelerace supports the skill-development process as well as they contribute with daily operative assignments to move to company forth
3. A network model, where each participating company is supplied with specific experts (e.g. industry or functional experts) who on an ad-hoc basis provide feedback on challenges confronting the companies
4. An action model, where the companies are required to show progress in the ability to acquire new insights from potential customers, suppliers etc.

Beyond these four pillars an infrastructure has been established to ensure that the development process runs as cost efficient as possible. This includes three databases; First, a database of specific tools which can provide inspiration to manage the processes in the entrepreneurial cycle. Second, an international database of experts within different domains such as industries, technologies, markets, functions etc. Third, a partner-database with investors, alumni and individuals from collaborating science parks in order to provide easy access to qualified reliable information, network, and validation of concepts from well-known sources.

The four pillars of Accelerace each contribute to the entrepreneurial cycle and the competencies that are needed to successfully progress. In rough, the objective with the first two pillars (camps and apprenticeship) is to support the analysis and conceptualization capabilities of the entrepreneur while the two latter pillars (network and action) are primarily focused on increasing the number and quality of iterations leading to evidence. Finally, a stage gate process is implemented to the program to ensure the constant progress and highest level of commitment from the participating entrepreneurs. The program pillars are related to the entrepreneurial cycle as illustrated in Figure 3 below.

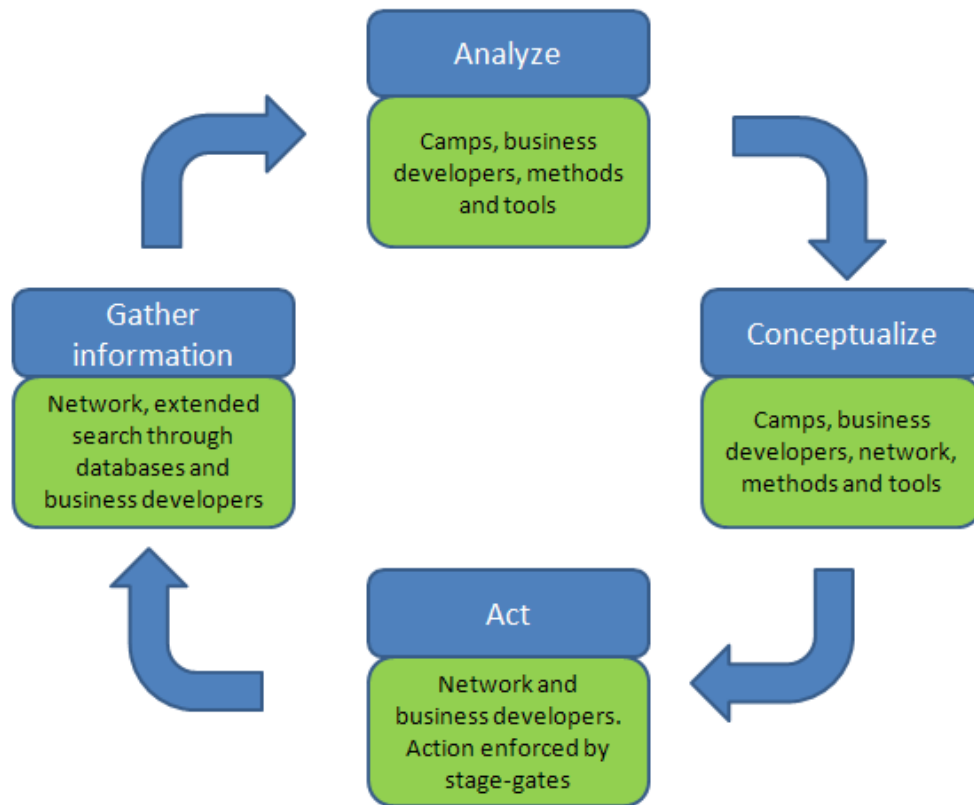


Figure 4: The link between the Accelerace program and the entrepreneurial cycle

As such, the Accelerace program works with dual objectives; First, to develop the specific venture that enters the program, and Second, to develop the skill-set of the entrepreneur. These objectives are in accordance with the learning curve theory which we initially introduced; content knowledge and learning a methodology.

Conclusion

In this paper we acknowledged that entrepreneurship can be learned through real-life experience and presented arguments which supported a method perspective to entrepreneurial actions. Subsequently we built on the learning curve literature, and experience from the incubation of more than a hundred knowledge intensive new ventures to develop a specific method targeted to entrepreneurial ventures. We argue that a method, consisting of four independent processes and aided by simple techniques to reduce cost and time while increasing quality of iterations. Finally, we provided an example of how this method could be implemented in an incubator to increase the likelihood of new ventures.

Because we find ourselves in a world characterized by constantly greater levels of complexity and uncertainty, we support the method approach to entrepreneurship for three reasons: First, existing approaches have not proven their impact on new venture failure rates. Second, real-world experience contributes significantly to learning, but new approaches should be considered in order to decrease the cost of failure. Finally, a method of entrepreneurship is suitable for a structured development of entrepreneurial capacity in any context and thus has the potential to significantly add value in society.

While success in entrepreneurship depends on more than a method, it is important to emphasize that the proposed entrepreneurial method, like any other method, can be taught and practiced by any individual or organization to raise the capacity for building new ventures. Learning a method,

in our opinion, is more important than learning specific content in a world where knowledge continues to perish at an increasing speed.

At Accelerace, we support the notion that entrepreneurship should not be considered as a “one shot” opportunity. Rather entrepreneurship, given the significant risks inherent in the process, should be considered as a stepwise career path; building entrepreneurial capacity venture after venture, gradually climbing up the entrepreneurial ladder, and eventually (if everything goes well) invest and inspire new entrepreneurs to follow a similar path. Therefore, Accelerace is not only measured in terms of the outcome of each venture that goes through the program, but also on the ability to develop the skills-set of entrepreneurial talents to ensure that these will eventually become successful serial entrepreneurs and investors to the benefit of many.

Today, it is broadly acknowledged that Science parks provide convenience to entrepreneurs. Yet, if science parks seek to provide additional value to new ventures - and in society - there is a need to think beyond convenience. Because science parks already benefit from being lighthouses in the entrepreneurial infrastructure, embedded in a entrepreneurial communities and networks at multiple levels of society, and home to large numbers of potentially successful new ventures, we believe that the on-location incubation facility is a natural extension of value proposition offered to a broad range of stakeholders.

At Accelerace, we acknowledge that there is much to be learned, however we believe we have taken a first step in the direction of exploiting the role of science parks in society. More importantly, we will continue to take our own medicine and iterate us through the entrepreneurial cycle in an effort to improve and further develop the program.