

UNIVERSITEIT TWENTE.

**Differences and similarities in the entrepreneurial process of
independent new ventures and corporate new ventures**

Master Thesis

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April 12th, 2013

Abstract

This research study shows similarities and differences in entrepreneurial activities and processes of corporate new ventures and independent new ventures. Hereby, the leading theme is the theory of causation and effectuation.

By analyzing four different cases, findings suggest that both, effectuation and causation are determinants in the entrepreneurial process in corporate and independent new ventures. While independent ventures show more effectual reasoning by establishing strategic alliances, focus on personal affordable loss and means-based actions, they also show causal elements by conducting competitive analyses and focusing on expected returns.

In contrast, although corporate ventures often have to focus on expected returns and goals, they like to experiment with ideas, build partnerships, and exploit contingencies within and outside their core business. Hereby, they are restricted in their entrepreneurial activities and face organizational challenges. Therefore, findings indicate the importance of an organizational environment welcoming entrepreneurial activities and innovation.

Besides theoretical contribution in the field of entrepreneurship, the study also has practical relevance and gives managerial implications. Despite limitations, the study and its findings provide possible directions for future research.

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1 Chapter One: Introduction and Research Design

1.1 Background

With globalization, new emerging technologies and innovation, rapid changing businesses and structures, it is vital for companies wanting to stay and be successful in the competitive business environment. They need to be adaptive, flexible, fast, aggressive and innovative, in one word: entrepreneurial (Morris and Kuratko, 2002). For that reason, entrepreneurship has become more and more important as a field of research in the academic world.

Although entrepreneurship is regarded as a relatively young field (Cooper, 2003), it can be described as the creation of new enterprise (Gartner, 1985) and the process of discovery, evaluation, and exploitation of opportunities (Shane and Venkataraman, 2000). It includes the combination and exploitation of existing knowledge as well as the exploration of new knowledge and opportunities to initiate new business activities and create innovation and new technologies (Ahuja and Lampert, 2001; Alvarez and Barney, 2007; Ireland and Webb, 2007). Overall, entrepreneurship is associated with the enhancement of innovation, prosperity, productivity, employment, and can be regarded as an engine of the economic system (Birch, 1987; Kuratko and Hodgetts, 2004).

This is backed up with the GEM survey from 2011, which stated that 12.3% of working adults in the United States were starting or running new ventures, an estimated 29 million people (GEM USA 2011).

One of the most important components in the field of entrepreneurship is to look how entrepreneurs go about setting up new businesses, the entrepreneurial process (Drucker, 1988). It involves all activities, actions, and functions associated with recognizing and developing opportunities, explore as well as exploit existing and new knowledge to create businesses (Bygrave, 2004).

Past research about entrepreneurial decision-making assumed a goal-driven behavior (Bird, 1989), which is referred by Sarasvathy (2001) as a causal logic. Causation is applied in domains with predictive rationality and environmental selection as primary factors influencing the outcome.

Moving from the traditional predictive rationality, a new form of decision logic when pursuing entrepreneurial opportunities has emerged: effectuation (Sarasvathy, 2001). She defines effectuation as a process which “takes a set of means as given and focus on selecting between possible effects that can be created with that set of means” (Sarasvathy, 2001, p.245). In a world where entrepreneurs face a dynamic and complex environment, they cannot always predict the outcome of their entrepreneurial activities (Bhide, 2000). Therefore, the overall aim of applying effectuation process is to use available resources and remain flexible, while taking advantage of environmental contingencies.

Individual entrepreneurship has been the focus of past research, as Schumpeter (1934) states that it is the individual who carries out entrepreneurial activities and initiatives. The leader of the new venture significantly influences the firm through his personal attributes and strategic decisions. Hence, in the past entrepreneurial activities were mostly associated with small and medium-sized enterprises (Morris and Kuratko, 2002).

In addition, entrepreneurial spirit and activities can also occur in an organizational context (Shane and Venkataramen, 2000) and over the last decades, the concept of corporate entrepreneurship has emerged. It can be defined as entrepreneurial activities leading to new products and or markets of large, established corporations (Gartner, 1988; Lumpkin and Dess, 1996).

In the past, it was assumed that the large companies might be anti-entrepreneurial, being resistant to change and slow growing (Ettlie and Rubenstein, 1987). However, large companies like Apple, Intel, Microsoft, or Google have proven otherwise (Cusumano, 2010). Corporations have established entrepreneurship-type programs and initiatives in order to innovate and attract top talent as well as sustain a competitive advantage (Schuler, 1986). Although the need for large corporations to become more entrepreneurial has been discussed in past studies (Cornwall and Perlman, 1990), little research has focused on the actual entrepreneurial process, as processes in large enterprises are rather complex and difficult to research.

1.2 Research question

This study aims to investigate, elaborate, and compare the entrepreneurial activities and processes on two different levels, namely independent new ventures and corporate new ventures. Specifically, the aspects of human factors, such as personality, traits and characteristics, and motivation will be focused on. In addition, research also emphasizes on the entrepreneurial processes with its main phases, ideation, development, and execution. Furthermore, the corporate culture and organizational structure as well as the vision and strategy of new ventures will be researched. Summing up, the study will seek to address the following central research question:

What are the differences and similarities in the entrepreneurial processes and activities of independent new ventures and corporate new ventures and how do they differ in the application of causation and effectuation in particular?

If the proposed study shows results with interesting findings, more light is shed on the phenomenon of entrepreneurship.

1.3 Purpose and relevance of the study

The purpose of this study is to compare entrepreneurial processes of independent and corporate new ventures and be able to fill the gap in the current literature. Most past research has focused on a single analysis level only and attempted to emphasize on the differences, rather than pointing out similarities between independent ventures and corporations when setting up new businesses (MacMillan, 1983; Sinetar, 1985; Busenitz, West, Shepherd, Nelson, Chandler, & Zacharakis, 2003). This aspect made it difficult to interpret and compare findings completely. Therefore this study will concentrate on the analysis of two different levels and seeks to explore, understand, and identify intersections but also challenges in being entrepreneurial.

Furthermore, the study is taking external factors, such as the business environment and industry, but also internal factors, such as company culture, organizational structure, and employees' background, motivation, and vision into account.

It is anticipated that the proposed study will have practical implications and also contribute to the current literature and theory on entrepreneurship in several ways. First, although the level of interest in the field of entrepreneurship is increasing, there are still many unknown factors compared to other areas of interest. Therefore, research and its findings have the potential to add new knowledge to the field of entrepreneurship in general. Second, it specifically seeks to contribute and deepening the understanding of the entrepreneur, the effects of an organization on employee behavior, and advances theory regarding entrepreneurial activities and processes from two perspectives.

In addition, literature regarding effectuation theory within a corporate context is scarce and has not been concentrated on much. In one of the few attempts, Brettel, Mauer, Engelen and Küpper (2012) have analyzed the impact of effectuation in research and development projects. They found out that effectuation is positively related to performance in highly innovative contexts, while causation is positively related to performance in the context of low levels of effectuation. Hereby, this study aims to link corporate ventures with the four principles of effectuation theory, namely means, affordable loss, strategic alliances, and controlling an unexpected future.

Lastly, from a practical perspective the findings of the study may be useful to entrepreneurs as well as employees in corporate new venture. Insights from the study will provide real-life examples, including successful and challenging cases, which can be used as advice and guideline but also to be aware and avoid possible drawbacks. Hereby, the cases show how entrepreneurs recognized opportunities, which processes they went through, which obstacles they had to face, and what drove and motivated them to keep working on their vision and mission.

Furthermore, findings can show how corporations made use of effectual principles in order to exploit contingencies, deal with risk and uncertainty, and to remain flexible and be entrepreneurial. Hereby, a focus on the organizational structure and corporate culture can support companies to align and build an environment for intrapreneurs. A recommendation for future new independent and corporate ventures increases the likelihood for a successful outcome.

In the following, chapter two is devoted to an extensive review of literature. All relevant literature is presented, with most important concepts defined, and lays down the foundation for the following study. Chapter three discusses the methodological approaches chosen for conducting the research study. In chapter four the findings and results of the qualitative research will be presented in four cases. Finally, chapter five concludes the thesis by drawing conclusions and discussing these, as well as presenting the limitations of the study and giving implications for future research.

2 Chapter Two: Literature Review

2.1 Entrepreneurship

During the last decades entrepreneurship has emerged as a legitimate academic pursuit and significant relevant research field (Bygrave and Hofer, 1991; McDougall and Oviatt, 2000; Busenitz et al., 2003). While others think that entrepreneurship is characterized by accumulative fragmentalism, a “multidisciplinary jigsaw” (Harrison and Leitch, 1996, p. 69), and still a lack of a widely agreed definition exists (Gartner, 1990; Davidsson, 2003), Low and MacMillan (1988) suggest to define entrepreneurship as the creation of new enterprise. Additionally, Shane and Venkataraman (2000) describe the core of entrepreneurship with the questions of why, when, and how opportunities, regarding goods and services, come into existence. In particular, it involves the study of sources, discovery, evaluation and exploitation of opportunities, as well as the individuals who discover, evaluate and exploit them.

Additionally, entrepreneurship involves the development of new businesses, the creation of innovations and new technologies, the facility of economic growth and development. More specifically, entrepreneurial activities can be associated with the creation of new markets and industries, as well as new firms in existing industries (Sarasvathy, 2001).

Past research on entrepreneurship ranges on different levels of analysis, therefore Bull and Willard (1993) classify the entrepreneurship literature in five broad categories. The first category focuses on the definition of the individual who carries out entrepreneurial activities: the entrepreneur. He can be defined as “a person [who] will carry out a new combination, causing discontinuity, under conditions of: task-related motivation, expertise, expectation of personal gain, and a supportive environment” (Bull and Willard, 1993, p. 183). Additionally, Knight highlights his ability to cope with uncertainty and bear the uninsurable risk (Urban, 2010). The second category deals with the psychological traits of individuals identified as entrepreneurs, the trait approach. Identifying and recognizing an opportunity is seen as the foundation of new venture creation (Kirzner, 1979; Ardichvili, Cardozo and Ray, 2003; Shane, 2003; Baron, 2004; DeTienne and Chandler, 2004): one discovers a potential opportunity and then acts on it in some way. Another category

emphasizes on success strategies and tries to explain the success of new and existing business ventures. Fourthly, research focuses on the formation of new ventures and the last category investigates the effect of environmental factors on entrepreneurial activities. In order to reach a higher level of legitimacy, Busenitz et al. (2003) argue that the field of entrepreneurship need more articulated boundaries and new good theory, as it fosters external and internal exchange with other areas of management.

2.2 Corporate Entrepreneurship

Besides creating new firms, entrepreneurial activities can take place in an organizational context (Shane and Venkataramen, 2000) and result in the formation of new firms or performance improvement of established firms (Gartner, 1988; Lumpkin and Dess, 1996).

The concept of entrepreneurship within existing organizations has emerged over the past decades as an important research topic in the academic field and among practitioners, and is known under different names. The most prominent term is corporate entrepreneurship (Morris and Kuratko, 2002; Burgelman, 1983a), which has been used in various high ranked journals like the Strategic Management Journal in 1990 and Entrepreneurship, Theory & Practise (1999). Other terms include intrapreneurship (Pinchot, 1985), entrepreneurial management, internal corporate entrepreneurship, and corporate venturing (Sharma and Chrisman, 1999).

What all those concepts have in common is that they describe entrepreneurial activities, such as through innovation and venturing activities, leading to new products and or markets of renewed, established organizations (Guth and Ginsberg, 1990). It can be defined as “the process whereby an individual or group of individuals in association with an existing organization, create a new organization or instigate renewal or innovation within that organization” (Sharma and Chrisman, 1999, p. 18). In addition, corporate entrepreneurship is described as an “organizational process for transforming individual ideas into collective actions through the management of uncertainties” (Chung and Gibbons, 1997, p.14) and firms “engage in diversification through internal development” (Burgelman, 1983b, p. 1349).

Organizations see innovations and entrepreneurial activities as one of the most important ways to gain and sustain competitive advantage, strategic renewal (Guth and Ginsberg, 1990), and gain knowledge to develop future revenue streams (McGrath, Venkataraman and MacMillan, 1994). Moreover, it enhances companies' financial performance, increase profitability, and achieve higher growth in domestic as well as international markets (Birkinshaw, 1977; Zahra and Hayton, 2008). Not only does it stimulate existing businesses, it can help to expand in new related markets and industries, and can have a major impact on the overall organizational performance, as empirical evidence has shown (Zahra and Covin, 1995). Hereby, corporations learn through the exploration of new knowledge and identify opportunities as well as exploit existing knowledge (Lumpkin and Dess, 1996; Floyd and Wooldridge, 1999).

Burgelman (1983b) states that order and diversity in strategy are needed in order for large diversified corporations to survive. Hereby, entrepreneurial activities provide the required diversity and support the combination of new resources in order to extent the firm's activities in unrelated areas to its current core business.

Similar to the field of corporate entrepreneurship, research on innovation management has increased in management literature over the past decades (Ortt and van der Duin, 2008). However, research on innovation management has ranged on a variety of disciplines, including management science, economics, geography, sociology and psychology and has limited the accumulation and convergence of knowledge in the field (Tidd, 2002).

Nevertheless, a widely shared definition of innovation is the commercialization of invention (Schumpeter, 1942). The need for innovation is imperative (Tidd, Bessant and Pavitt, 2005) and Cooper (1999) stressed the necessity for companies to innovate by stating that if they fail to develop new products, they will disappear.

With the importance of innovation, a variety of the concept of innovation has been developed (Garcia and Calantone, 2002), differentiating attributes for innovation concerning its content and intensity. Differences in content include product and process, technological and architectural, administrative and technical (Massa and Testa, 2008). Additionally, intensity can be differentiated in radical or incremental (Koberg, Detienne and Heppard, 2003; Etllie, Bridges and O'Keefe, 1984),

discontinuous or continuous (Bower and Christensen, 1996), revolutionary or evolutionary (Utterback, 1996), and major or minor (Katz and Shapiro, 1987). Furthermore, nowadays innovation can be described as a problem-solving process (Dosi, 1982), an interactive process involving relationships between firms and different actors (Kline and Rosenberg, 1986), or a diversified learning process (Cohen and Levinthal, 1990).

Stopford and Baden-Fuller (1994) regard innovation as a component of entrepreneurship, being the commitment to create and introduce products and services, production processes, and organizational systems (Covin and Slevin, 1991; Lumpkin and Dess, 1996). Moreover, innovation and entrepreneurship make it possible for corporations to win new markets and increase existing quality and reliability of products. Furthermore, an increase in innovation can satisfy legislation, regulations and standards, reduce costs, and increase production flexibility (Tomala and Sénéchal, 2003).

With both fields being inter-disciplinary, it can also be stated that entrepreneurship is a key characteristic of innovation (Mikkola, 2001), as Kanter (1989, p. 60) describes, "... like most entrepreneurs, in a new stream venture one must know one's particular technology or customers to be effective, whereas the mainstream businesses are routinized enough to make it possible for managers to be more interchangeable." Although innovation is viewed as a sufficient condition for entrepreneurial activities, it is not a necessary one as organizational creation or renewal can occur in the absence of innovation (Cuervo, Ribeiro and Roig, 2007).

Corporate entrepreneurial activities involve various steps, strategic decision and orientation of firms to create new products, processes, services, innovation, or even new organizations within the firm's overall business portfolio (Sharma and Chrisman, 1999; Narayanan, Yang and Zahra, 2009). One example is the decision of where to locate corporate new ventures, hence Sharma and Chrisman (1999) differentiate between internal and external venturing. Internal venturing refers to the creation of new businesses that has been generated within the corporation, though they might act as semi-autonomous entities, such as spin-offs. In contrast, corporations may also invest and, or even acquire in young, growing businesses created by external

parties, which is referred to as external corporate venturing (Phan, Wright, Ucbasaran and Tan, 2009).

Wolcott and Lippitz (2007) define four models of corporate entrepreneurship. They identified two dimensions that differentiate how corporations approach corporate entrepreneurship: organizational ownership and resource authority. While organizational ownership deals with the question who has “primary ownership for the creation of new businesses” (p. 76), resource authority focuses on who provides the funding and budgets for new business concepts, a dedicated corporate pool or through business-units.

Combining the two dimensions, a matrix with four models is generated: the opportunist, the enabler, the advocate, and the producer. The matrix is illustrated in Figure 1.

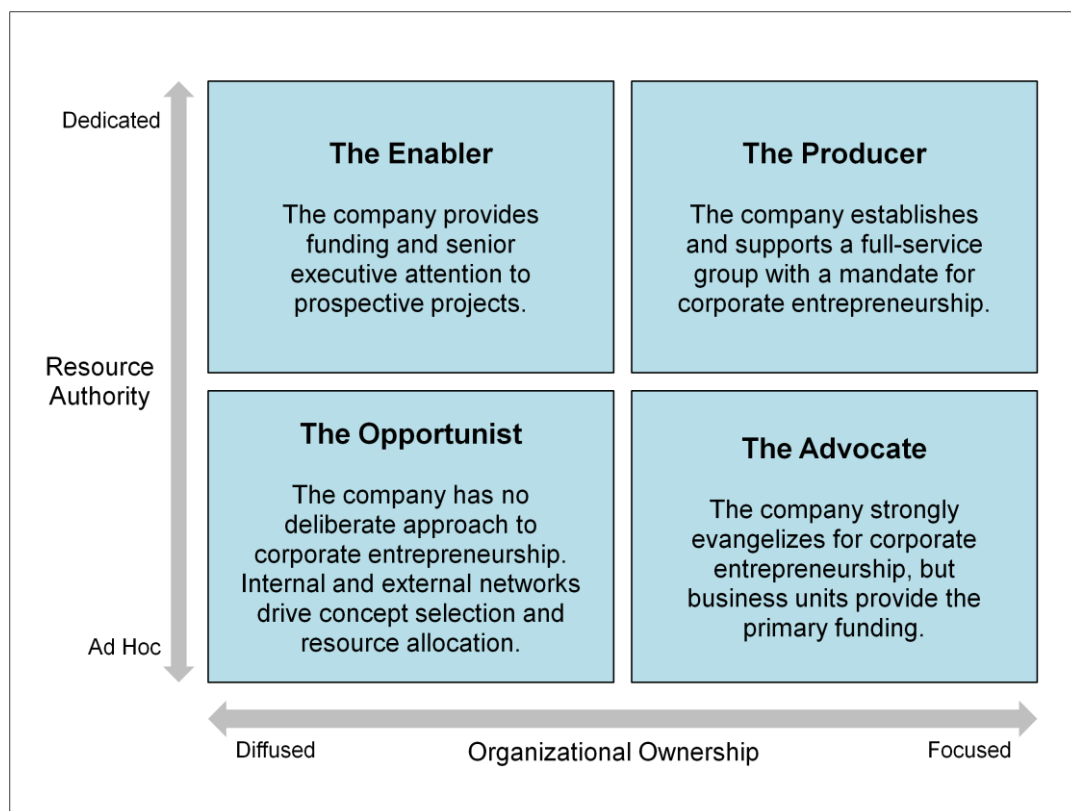


Figure 1: Four models of corporate entrepreneurship (Wolcott and Lippitz, 2007)

The opportunist model presents diffused ownership and ad hoc resource allocation. Hereby, a trusting corporate culture is preferred, which welcomes experimentation and has diverse social networks. Moreover, within the opportunist model corporate

entrepreneurship is the result out of efforts and serendipity of individuals who initiate new businesses in spite of the corporation.

Within the enabler model, providing dedicating resources and processes all employees across the corporation can develop new business concepts and pursue opportunities within the organization's strategic fit. Hereby, organizations provide criteria for selecting opportunities, guidelines for funding, decision-making transparency, and recruitment of entrepreneurial minded people. More importantly, active support towards entrepreneurship from senior management is vital, otherwise conflicts with established business units can occur.

In the advocate model, organizational ownership is assigned to business units directly to create new businesses. Hereby, the units facilitate corporate entrepreneurship with their modest budgets, and the corporations act as evangelists and experts of innovation.

Lastly, the producer model enables corporate entrepreneurship by establishing and supporting business units with dedicated funding. Moreover, the model fosters collaboration across the organization, supports potential disruptive new businesses and creates personal development possibilities for employees outside their business group (Wolcott and Lippitz, 2007).

2.3 Entrepreneurial Processes

One of the most important components in the field of entrepreneurship is to look how entrepreneurs go about setting up new businesses, which can be referred to as the entrepreneurial process (Drucker, 1988). The entrepreneurial process "involves all functions, actions and activities associated with perceiving opportunities and creating organizations to pursue them" (Bygrave, 2004, p.7). These functions include the development of a product or service, obtaining resources, designing organizations, and the development of strategies to exploit opportunities (Shane, 2003). Hence, the entrepreneurial process consists of four contingencies: the entrepreneur, a market opportunity, a business organizations, and resources to be invested. Eventually, the entrepreneur is responsible for bringing all these together to create new value (Wickham, 2001).

Shane and Venkataraman (2000) and Davidsson (2006) distinguish between the discovery and the exploitation phase during the entrepreneurship process. While the first has to do with the very early phases including the origins of the new venture idea, the latter refers to the tangible actions associated with putting this idea into action. Therefore, the entrepreneurial process can be divided into three main phases, namely opportunity recognition (Baron, 2006), opportunity development (Blume and Covin, 2011), and opportunity exploitation (Alvarez and Barney, 2007; Edelman and Yli-Renko, 2010), which is illustrated in Figure 2. Hence, Johanson and Vahlne (2006) state that opportunities are the most important elements in the process, as they are the basis for every entrepreneurial activity.

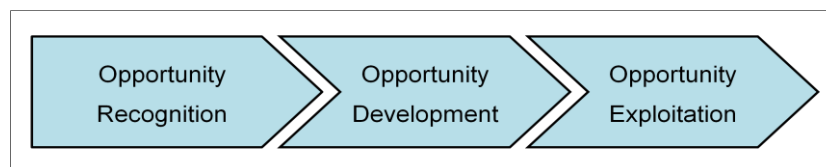


Figure 2: The entrepreneurial process (based on Groen, 2005)

Moroz and Hindle (2011) reviewed 32 published models of entrepreneurial processes in the literature. They evaluated them based on four criteria: distinctness, generality, accuracy, and simplicity. Distinctness examines if the proposed process model applies to the field of entrepreneurship or management in general, while generality aims to check if processes can be labeled within the field of entrepreneurship. Moreover, the evidential basis for the process is tested by accuracy, while simplicity examines the complexity of the model (Moroz and Hindle, 2011).

In their investigation the authors came to the conclusion that entrepreneurial processes are highly fragmented in their claims and emphases. They admit that the complexity of human behavior in entrepreneurial processes make it challenging to come to a single theory. In their review, they identified four of the 32 process models, which are considered as converging on conceptualizing the entrepreneurial process, which are works by Gartner (1985), Bruyat and Julien (2000), Sarasvathy (2008), and Shane (2003).

2.3.1 Gartner's framework for new venture creation

Gartner (1985) develops a framework with a set of dimensions to understand the full range of activities essential to the outcome of entrepreneurship: new venture creation (Moroz and Hindle, 2011). His framework was intended to compare and contrast the differences between entrepreneurs and their organizations they create, rather than differences between entrepreneurs and non-entrepreneurs. Hereby, he identifies four key areas influencing the development of a new venture: individual(s), organization, environment, and process which are illustrated in the following Figure 3.

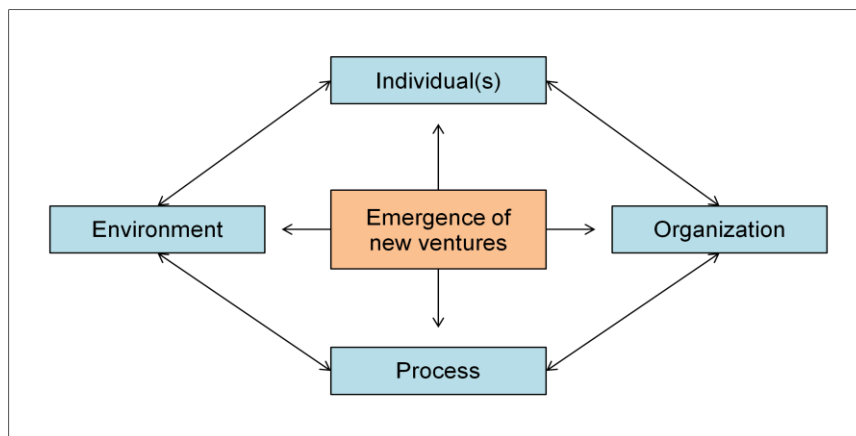


Figure 3: A framework for describing new venture creation (Gartner, 1985)

The individual represents the person(s) involved in starting a new venture, while the organization describes the kind of new firm which is started. The environment presents the situations surrounding and influencing the new organization and the venture process shows the actions taken by the individual(s) to start the new firm. His framework suggests that to understand about new ventures, one must study the interaction of all variables and not in isolation only.

Gartner (1985) states that the entrepreneur is involved in a multidimensional process of creating a new venture that is independent, profit oriented and driven by individual expertise. He identifies six process components of the entrepreneurial process that focuses on the creation of new ventures: location of business opportunities, accumulation of resources, market of products and series, production of products, building an organization and lastly the respondents to government and society.

It should be added that in Gartner's framework, there is no limitation of where the new venture may emerge and "if there is no new venture (emergence), there is no entrepreneurship, and only entrepreneurs start new ventures" (Moroz and Hindle, 2011).

Although the model seems appealing due to the simplicity, explanatory power, and clarity, there are several issues which make it challenging to describe entrepreneurial processes. For example, there are several studies focusing on the social aspect of entrepreneurship, hence a profit-oriented goal as a foundation might not be generic for all new ventures. In addition, the six components of the entrepreneurial process also describe managerial action and are not distinct to entrepreneurs. Furthermore, although there is a common agreement that innovation and entrepreneurship are correlated, the concept of newness is ambiguously in the model by Gartner (Moroz and Hindle, 2011).

2.3.2 Shane's individual-opportunity nexus framework

Shane (2003) develops a model which consists of different stages of the entrepreneurial process. According to Shane, previous research has often looked at only single parts of the entrepreneurial process while no links of other parts of the process have been created, hence he includes a series of potentially overlapping and reiterating phases. In Shane's model, the entrepreneurial process starts with the existence of opportunity, followed by the decision to exploit the opportunity. If the individual decides to exploit, the execution stage includes the activities of resource acquisition, entrepreneurial strategy, organizing process and performance. Figure 4 presents Shane's notion of the direction of the entrepreneurial process.

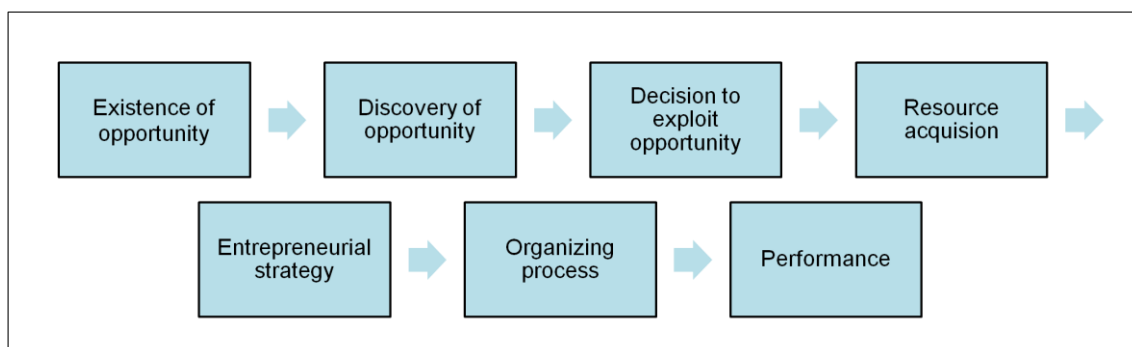


Figure 4: The direction of the entrepreneurial process (Shane, 2003)

Shane develops an *individual-opportunity nexus* framework in which he assumes that the entrepreneurial opportunities are objective and exist independently of the actors within the system. However, as opportunities themselves lack of agency, individuals are needed in order to discover and exploit the entrepreneurial opportunities.

Shane's model of entrepreneurial process involves the identification and evaluation of an opportunity in the beginning, and the decision on whether or not to exploit the opportunity. Moreover, it contains the effort of the entrepreneur or the team to obtain resources, a process for organizing resources and the development of a strategy for the new venture. Furthermore, he states that all activities within the process are influenced by the individual, such as demographic, psychological, and environmental (industry and macro-environment) factors. Taking Shane's assumptions into account, his framework assumes that entrepreneurial activity is planned and directional, with possibility for feedback. The process is illustrated in Figure 5.

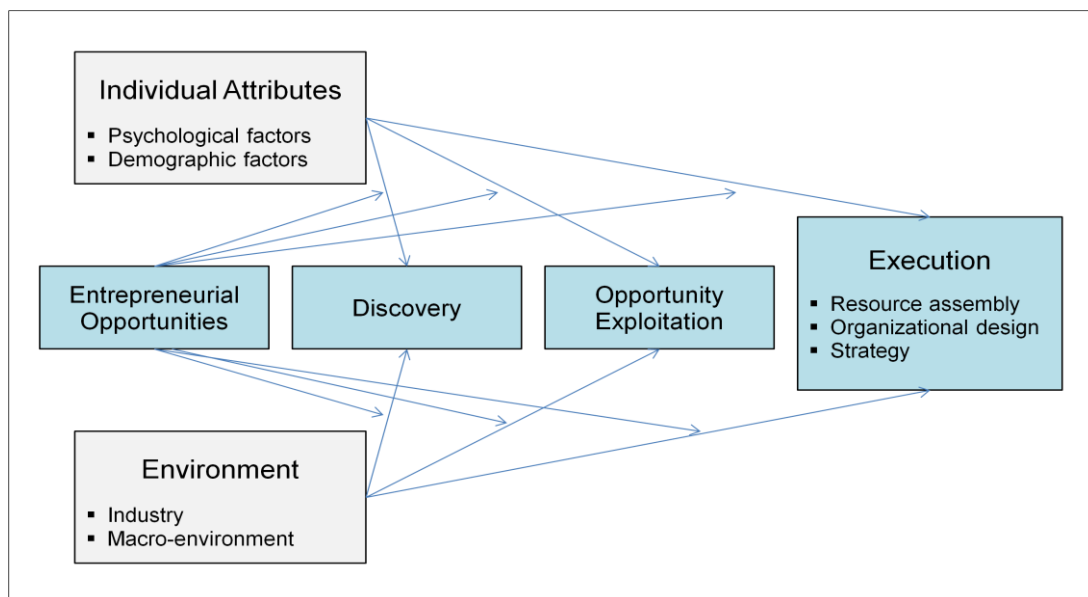


Figure 5: Model of the entrepreneurial process (Shane, 2003, p. 11).

Similar to Gartner's framework, Shane's model has a weakness in the interpretation of what is considered as "new". The evaluation of novelty is complex, as it depends on how one defines the concept of opportunity. There can either be an element of creativity, which requires new information, or the opportunity is limited to discovery, which does not need additional new information.

Furthermore, when regarding the entire entrepreneurial process as pointed out by Shane, one can envision where an entrepreneur might be involved, such as discovering new opportunities and evaluating the potential for making profits. However, there is a challenge to assess where the entrepreneur would pass on the opportunity to a manager who then successfully exploits it. Therefore all phases within Shane's process model of entrepreneurship might be carried out by entrepreneurs, but only the evaluation of discovered, profitable new means-ends relationship may be considered distinct to entrepreneurship (Moroz and Hindle, 2011).

2.3.3 Sarasvathy theory of causation and effectuation

When describing entrepreneurial processes, Sarasvathy (2001) identified two concepts, namely causation and effectuation. In the past, researchers have assumed that entrepreneurs follow a goal-driven behavior when engaging in entrepreneurial activities (Bird, 1989), which Sarasvathy (2001) referred to as causation. Causation, a planning strategy approach, is applied in domains where predictive rationality, given goals and environmental selection are primary factors that influence outcomes.

Moreover, causal reasoning begins with a predetermined goal or desired effect (outcome) to be created. It consists of principles, criteria, and techniques for achieving, generating, and selecting between possible means to accomplish the given goal, effect, and outcome. In that way, a clear vision and goal of a desired future is existent as well as a detailed plan on how to achieve it. A business plan is a good example of goal-driven decision making. The entrepreneur plans in detail, sets goals and works towards them. The business plan with its step-by-step rational process helps the entrepreneur to predict and prepare for the future and upcoming challenges (Chandler, DeTienne, McKelvie and Mumford, 2011). The individual makes rational choices based on all relevant information and estimated utility for each option (Viale, 1992).

Moving from the traditional predictive rationality a new form of decision logic when pursuing entrepreneurial opportunities has emerged: effectuation (Sarasvathy, 2001). Sarasvathy has found out in a number of interviews with entrepreneurs that they used a flexible and opportunistic process in order to build something for an uncertain

future. She defines effectuation as a process which “takes a set of means as given and focus on selecting between possible effects that can be created with that set of means” (Sarasvathy, 2001, p. 245). The entrepreneur maintains flexibility, as the structure of the emerging venture depends on contingent opportunities and investments by stakeholders (Sarasvathy, 2001). In a world where entrepreneurs face a dynamic and complex environment, they cannot always predict the outcome of their entrepreneurial activities (Bhidé, 2000). Therefore, the overall aim of applying effectuation process is to use available resources and remain flexible, while taking advantage of environmental contingencies (Sarasvathy, 2008). Figure 6 visualizes this difference between causation and effectuation.

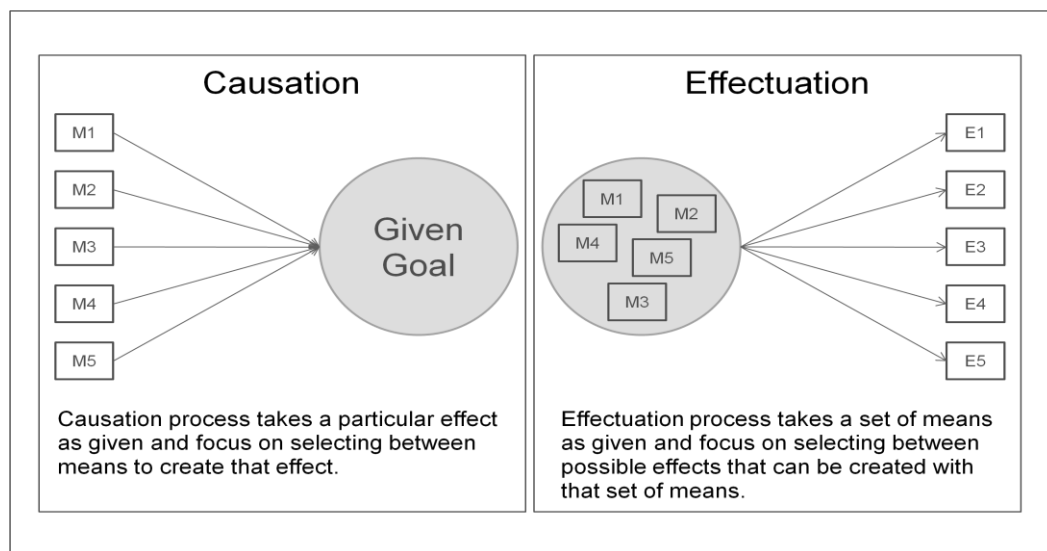


Figure 6: Causal vs. effectual reasoning

Sarasvathy (2001) introduced her theory regarding effectuation to the area of entrepreneurship research, with four principles. Those core principles that emerge from the effectuation model in contrast to causation are 1) "affordable loss rather than expected returns", 2) "strategic alliances rather than competitive analyses", 3) "exploitation of contingencies rather than exploitation of preexisting knowledge", and 4) "controlling an unpredictable future rather than predicting an uncertain one" (Sarasvathy, 2001, p. 252). The four principles of effectuation and their explanation are presented in Table 1.

Principles	Explanation
1. Affordable loss rather than expected returns	Effectuation predetermines how much loss is affordable and focuses on experimenting with as many strategies as possible with the given limited means. It is preferred to create more options in the future than maximize returns in the present.
2. Strategic alliances rather than competitive analyses	While causation models focuses on competitive analyses, effectuation emphasizes strategic alliances and pre-commitments from stakeholders as a way to reduce and / or eliminate uncertainty and to erect entry barriers.
3. Exploitation of contingencies rather than exploitation of preexisting knowledge	When preexisting knowledge forms the source of competitive advantage, causation models might be preferable. In contrast, effectuation would be better for exploiting contingencies that arose unexpectedly over time.
4. Controlling an unpredictable future rather than predicting an uncertain one	Causation focus on the predictable aspects of an uncertain future. The logic for causation processes is: To the extent that we can predict the future, we can control it. Effectuation focuses on the controllable aspects of an unpredictable future. The logic for using effectuation processes is: To the extent that we can control the future, we do not need to predict it.

Table 1: Principles of effectuation theory (Sarasvathy, 2001)

Causation and effectuation describe two different types of decision-making principles in the entrepreneurial process which can be used in various situations. However, Sarasvathy stresses that neither causation nor effectuation is the better decision making logic for the individual. Moreover, the two concepts do not seem to be diametrically opposed (Harms and Schiele, 2012) and depending on the context and actions, causation and effectuation can both occur simultaneously, overlapping, and intertwining (Sarasvathy, 2001). For example, causation processes can be used when certain events are analyzed, understood, controlled, and planned. Moreover, it comes into use when a certain goal is set to be achieved. In contrast, some contingencies cannot be predicted or analyzed, therefore effectuation processes can be more useful in situations of uncertainty. Applying the effectual logic, the entrepreneur identifies more potential markets, focuses on building the venture as a whole and emphasizes on developing and expanding networks and partnerships (Dew, Read, Sarasvathy and Wiltbank, 2009).

In contrast to Shanes' model of the entrepreneurial process, which usually starts with an opportunity identification, recognition and discovery to create a new market, Sarasvathy and Dew (2005) developed a dynamic model with the new market as an effectual artifact.

Sarasvathy and Dew (2005) consider new market creation as a process involving a new network of stakeholders, which is initiated through an effectual commitment. In the very beginning of the process, individuals with an effectual mindset concentrate on the given set of means. Within the consideration there are three main questions to be answered: who they are, what they know, and whom they know (Sarasvathy, 2008). In the next step, it is important to identify what they can do, and whom they know in order to start negotiations and commitment with them. The dynamic model by Sarasvathy and Dew (2005) is illustrated in Figure 7.

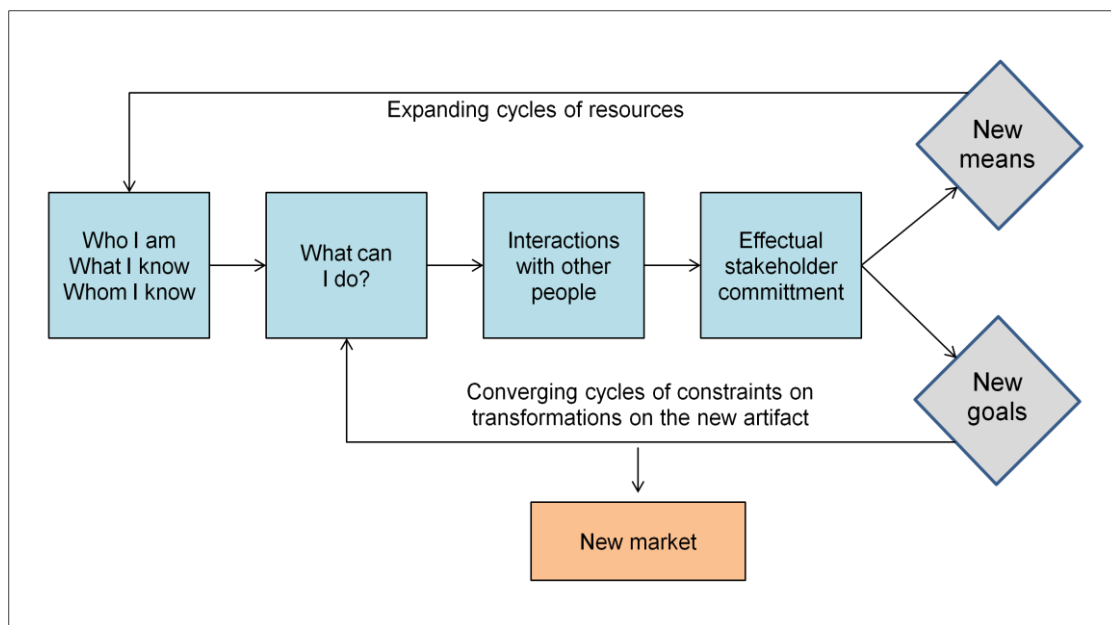


Figure 7: Dynamic model of the effectual network and the new market as an effectual artifact (Sarasvathy and Dew, 2005, p. 543).

The process of the dynamic model develops into two contrasting cycles. In the first cycle, the available resources are expanded through the increasing stakeholder membership in the network. In another cycle converging constraints aim into specific goals which eventually results into new markets over time.

2.3.4 Corporate Effectuation

Over the past decade, the effectuation model has continued to gain more legitimacy as numerous studies have established the existence of effectual logic in entrepreneurial decision-making (Wiltbank, Read, Dew, and Sarasvathy, 2009; Dew et al., 2009). While research centered mostly on the individual entrepreneur, past studies on effectuation in the corporate context is scarce.

Nevertheless, research on corporate entrepreneurship has moved the behavior and cognition of individuals into focus, and understands a company as a stage for individuals with entrepreneurial cognition to take action (Ireland, Covin and Kuratko, 2009). Especially in the early phases of corporate new ventures, commonly referred to as the fuzzy-front end (Smith and Reinertsen, 1991), there is a high degree of uncertainty, unclear potentials of technology, and unstructured search for ideas (Kim and Wilemon, 2002). That is when individual behavior is important and a determining factor for the future process.

In the following Table 2, key similarities and differences between individual entrepreneurship and corporate entrepreneurship are highlighted. The comparison paves the way to discuss the potential impact of causation and effectuation on the entrepreneurial processes in corporate and independent new ventures.

	Individual entrepreneurship	Corporate entrepreneurship
Key similarities	<ul style="list-style-type: none">▪ Discovery, evaluation, and exploitation of opportunities▪ Initiation of new products, services, and businesses	
Key differences	<ul style="list-style-type: none">▪ Personal risks▪ High tolerance for risk	<ul style="list-style-type: none">▪ Less personal risks▪ Corporate risk
	<ul style="list-style-type: none">▪ Full ownership and control over new business▪ Autonomy and independence	<ul style="list-style-type: none">▪ Act within an existing business▪ No or partial ownership of new business▪ Less decision-making autonomy
	<ul style="list-style-type: none">▪ Human and social capital	<ul style="list-style-type: none">▪ Access to corporate resources
	<ul style="list-style-type: none">▪ New venture with individual or small team	<ul style="list-style-type: none">▪ Large size of corporation▪ Existing corporate culture and structure

Table 2: Key similarities and differences between individual and corporate entrepreneurship

Although individuals in both, individual entrepreneurship and corporate entrepreneurship, discover, evaluate, and exploit opportunities as well as initiate and create new products and businesses, there are some key differences which can have an impact on the use of causation and effectuation during the entrepreneurial process.

Firstly, in individual entrepreneurship, the individual takes high personal risks. This usually includes an unstable and irregular income in the early phases, no stable employment, high uncertainty and giving up a lot of personal time. Moreover, the individuals are autonomous and have full ownership and control over their ideas and new business. Hence, it is predicated that individual entrepreneurs can decide independently and focus merely on how much loss is affordable for them.

In contrast, corporate entrepreneurs act within an existing organization and have no or only partial ownership of the new created products and businesses. Depending on the corporation's strategy and culture, causal as well as effectual reasoning can occur. On the one hand, corporations can offer their employees freedom for creativity to pursue opportunities, provide a dedicated amount of resources, and focus on affordable loss rather than expected returns. On the other hand, the corporations can emphasize their entrepreneurial activities towards expected returns and pre-determined goals.

Another difference between individual and corporate entrepreneurship are resources. As corporate entrepreneurs have access to resources, knowledge, and skill-sets within the organization, it is assumed that corporate entrepreneurship concentrates on causation and focuses on exploiting pre-existing knowledge. In contrast, individual entrepreneurs have to rely on their human and social capital. Therefore, effectuation might be preferred in order to exploit contingencies, using one owns competencies, knowledge, and skills. In addition, with their social characteristics and attributes it is assumed that individual entrepreneurship will also emphasize on strategic alliances and pre-commitments from stakeholders.

In one of the few attempts, Brettel et al. (2012) analyzed effectuation in research and development (R&D) projects. They found that effectuation is positively related to performance in highly innovative contexts, while causation is positively related to performance in the context of low levels of effectuation.

Moreover, taking the dynamic model by Sarasvathy and Dew (2005) into account, Blekman (2011) expands the model within a corporate context and adds the dimension of the environment. The extended model is illustrated in Figure 8.

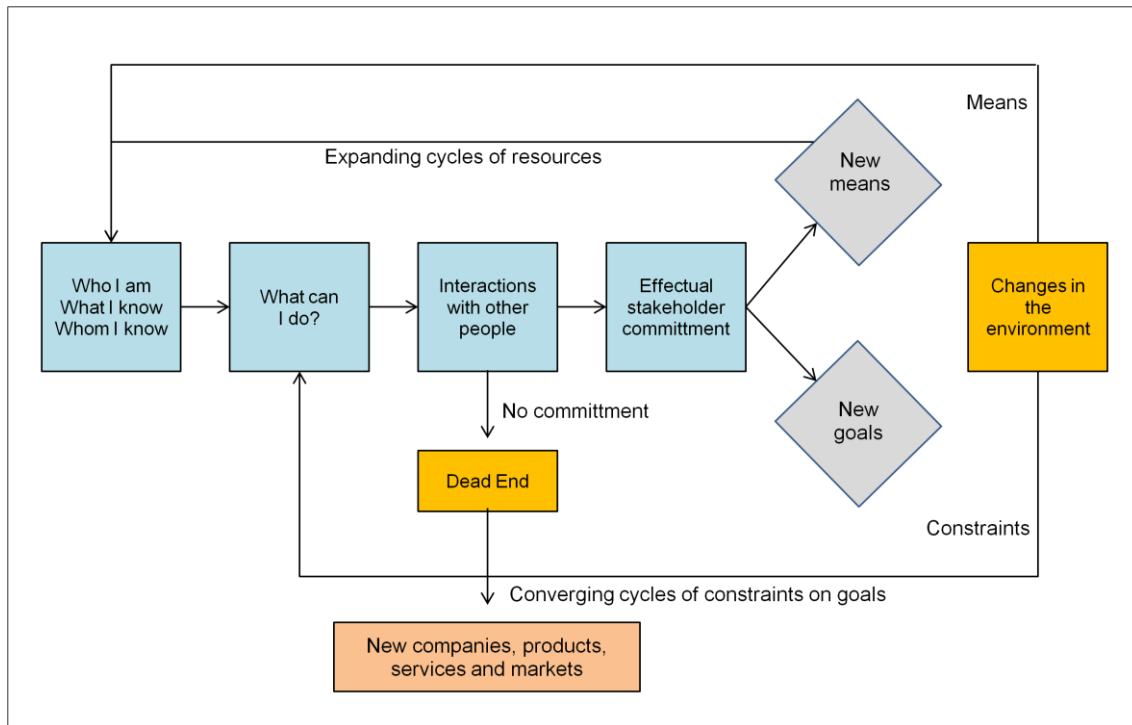


Figure 8: Corporate Effectuation model based on Blekman (2011, p. 82)

While many corporations focus on process optimizations, improving efficiency and productivity, they also want to innovate. This might seem contradictory, however Blekman (2011) stated that innovation and a focus on cost reduction and process optimization can work parallel when applying effectuation and its principles. Effectuation empowers the explorative power of the organization, which perfectly fits the long term strategy of adding value to propositions.

In a current ongoing research project “Effectual Orientation”, a group of researchers from RWTH Aachen University want to raise the effectuation theory from a personal to corporate level. They state that at this level, effectuation can be understood as a firm’s philosophy, which reflects the activities and behavior of a company. Based on the work of Sarasvathy on effectuation, they are developing a scale to measure to which extent companies act effectual.

2.4 The entrepreneur

2.4.1 Personality and characteristics

One inevitably important factor for entrepreneurial activities and processes is the individual behind all activities and initiatives, the entrepreneur. A new venture depends very much on individual decisions; hence past research has focused on the characteristics, traits, behavior, and abilities of the entrepreneur (Gartner, 1988). Specifically, research includes the need for achievement, the locus of control, risk-taking behaviors, and values (McClelland, 1961; McClelland and Winter, 1969; DeCarlo and Lyons, 1979; Hull, Bosley and Udell, 1980).

Numerous researchers state that the need for achievement has been associated with entrepreneurial behavior (McClelland, 1961; Durand, 1975; Mescon and Montanari, 1981; Welsch and Young, 1982; Johnson, 1990; Stewart and Roth, 2007). McClelland (1961) associates the entrepreneur with economic change and growth and states his need for achievement translates into economic development. Hereby, the entrepreneurs set targets, strive for them, and want to solve problems themselves. They get a personal achievement when taking responsibility for their success but also their failures (McClelland, 1961). Especially in the early phases of a new venture, an emphasis and passion to solve problems is an important factor to survive the critical operational phase (Littunen, Storhammar and Nenonen, 1998).

One attribute associated with entrepreneurs is their risk propensity and tolerance for uncertainty and ambiguity (Hornaday and Bunker, 1970; Brockhaus, 1980; Begley and Boyd, 1987). Budner (1982) described the tolerance for ambiguity as the propensity of individuals to view situations without clear outcomes as attractive rather than threatening. Especially in the early phases of a new venture, entrepreneurs are faced with unknown, unstructured, and uncertain situations, which might be problematic for risk-averse individuals. Hereby, the entrepreneur does not only identify opportunities (Shane, 2003), but also has the ability to turn resources and situations into practical account and deals with the risks and failure (Hisrich, 1990). Besides uncertainty and risks in new ventures, Liles (1974) adds that entrepreneurs often have to accept uncertainty and risks in regard to financial matters, psychic well-being, career security, and family relations. Consequently, past studies predict that

entrepreneurs have a higher tolerance for ambiguity and uncertainty than non-founders (Begley and Boyd, 1987).

Another common theme in research on entrepreneurial individuals is based on Rotter's (1966) locus of control theory. Hereby, an individuals' locus of control can be differentiated in internal and external. On the one hand, internal control expectation can be referred to control over one's own life and where actions depend on one's own behavior and characteristics. This characteristic can also be closely linked to effectuation, where individuals aim to control an unpredictable future. Moreover, they seek entrepreneurial roles because they desire positions in which their actions have a direct impact on results (Rotter, 1966). On the other hand, external control expectation focuses on actions of other people, or other circumstances such as luck, fate, or chance. While external control encourages passivity and repress learning, internal control fosters active striving, constant learning, and boost one's motivation and therefore is generally associated as a typical characteristic of an entrepreneur (Rotter, 1966; Begley and Boyd, 1987).

Self-efficacy can be seen as task-specific self-confidence and is the belief that one can muster and implement necessary personal resources, skills, and competencies in order to attain a certain level of achievement on a given task (Bandura, 1997). Attributes of self-efficacy may be important within the entrepreneurial process as situations are often ambiguous. Individuals with high self-efficacy for a given task will exert effort for a longer period, persist through challenges and setbacks, accept higher goals, and develop strategies for the task. In addition, individuals will take negative feedback and put it into a positive manner which will be used to improve their performance (Shane, Locke and Collins, 2003).

Furthermore, Frese (2009) develops three characteristics of entrepreneurial actions and states that an entrepreneur needs to be proactive, persistent in the face of obstacles, and self-starting. Proactive can be described as having a long-term focus and anticipating future problems and opportunities. Persistence is required in order to overcome problems and obstacles a new venture faces. Furthermore, clear goals and a clearly communicated vision are fostered (Baum and Locke, 2004). Lastly, self-starting refers to taking actions without external triggers, which corresponds to the theory of locus of control by Rotter (1966).

Brandstätter (2011) looks into the personality aspects of entrepreneurs using various meta-analyses and identifies the Big Five (OCEAN): openness to experience, consciousness, extraversion, agreeableness, and neuroticism. Openness to experience describes the mental and experiential life of the individual in its depth and breadth, but also originality and complexity. The goal-directed behavior and prescribed impulse control is illustrated by consciousness. Besides, it also includes one's achievement motivation. Behavior and traits such as active, social, assertive, and positive emotion describe extraversion. Additionally, an energetic approach toward the social and material world is implied. Agreeableness includes characteristics such as altruism, tender mindedness, trust, and modesty and is in contrast with pro-social behavior and communal orientation. Lastly, neuroticism can be described as feeling anxious, nervous, sad, and tense and is in contrast to emotional stability.

Other characteristics and traits associated with entrepreneurs include a high self-esteem, creativity, dominance and a need for power (McClelland, 1961; Ryckman, Rodda and Sherman, 1972; Sexton and Bowman, 1985; Brandstätter, 2011).

2.4.2 Motivation

Besides examining the variety of entrepreneurial characteristics, various human motivational factors to become an entrepreneur and create new ventures have also been focused on in the literature (Gaglio, 1997; Kirzner, 1979; Sarasvathy, Dew, Velamuri and Venkataraman, 2003; Shane, Locke and Collins, 2003).

When asked why individuals want to start their own business, the need for independence and need for autonomy are the most referred motives (DeCarlo and Lyons, 1979; Gray, 1990; Hisrich, 1990; Van Gelderen and Jansen, 2006). Hereby, independence and autonomy can be explained in two aspects. First, individuals have the desire for autonomy as a final goal, having the freedom to decide independently and take responsibilities over one's own judgment and actions. Second, autonomy can be regarded as a motive, wanting to be independent from bosses or other influences (Van Gelderen and Jansen, 2006).

Other individuals are rather pushed into entrepreneurship and motivated by a lack of other employment alternatives (Block and Koellinger, 2009; Reynolds,

Bygrave and Autio, 2003), parents' occupation, dissatisfaction with previous or existing employment or career setbacks (Collins and Moore; 1970; Draheim, 1972; DeCarlo and Lyons, 1979; Thorne and Ball, 1981).

2.4.3 Background

Although entrepreneurs, such as Steve Jobs, Bill Gates and Mark Zuckerberg are celebrated people in the American culture, still little is known about the backgrounds and beliefs of founders in high-growth industries. For that reason, the Kauffman Foundation (2009) has conducted a study supporting to fill some gaps into the backgrounds of entrepreneurs. Although the research is not generalized to the entire population of entrepreneurs in the United States, the study shows that generally entrepreneurs are well-educated with a university degree and have an early interest and propensity to start a new venture. In addition, they don't always come from families with a background in entrepreneurship, but are more likely to have worked for an employer for more than six years before starting their own venture (Wadhwa, Holly, Aggarwal and Salkever, 2009).

Gartner (1989) suggested that education is a factor that differentiates entrepreneurs from non-entrepreneurs. Especially in high technology ventures entrepreneurs are well-educated (Roberts, 1968; Cooper, 1971). Previous studies have shown that entrepreneurship education often triggers motivation for venture creation (Cho, 1998; Clark, Davis and Harnish, 1984; European Commission, 2006). In the United States, many universities and colleges have increased its offers on entrepreneurship-related courses (Solomon, Fernald and Weaver, 1993; Timmons, 1999). It provides students motivation, knowledge, and skills essential for launching a new venture (Cho, 1998).

2.4.4 Intrapreneur = Entrepreneur?

Based on Bandura's social cognition theory (1986), individuals' behavior, personal factors and external environment constantly influence each other.

Taking the concept of corporate entrepreneurship into account, entrepreneurial employees, also referred to as intrapreneurs, are vital in the process of new business creation within corporations. Authors have described the term *intrapreneur* as any person who has the ability to analyze the environment for opportunities, mobilize resources and take actions to take advantage of these opportunities (Hornsby,

Naffzger, Kuratko and Montagno, 1993). Hereby, the individual makes use of his abilities, knowledge of the market, technologies involved, customer needs and many others (Stevenson and Jarillo, 1990).

In the past, the term intrapreneur was used to describe individuals that behave and act like entrepreneurs in major companies. Mostly, these employees were the 'star engineers' who would come up with original ideas and create new products. However, nowadays companies have embraced intrapreneurship to drive innovation and to stay ahead of the competition. In addition, it is used as a recruiting tool for young talents, as this trend has been driven in large part by 'Generation-Y', a generation of entrepreneurs that want to reinvent the business world. Hence, in the war for talent and innovation many corporations have to think innovative and embrace entrepreneurship in order to survive and thrive (iOpener Institute for People and Performance, 2012).

Entrepreneurial and intrapreneurial activities and competencies are similar in several aspects. Entrepreneurs as well as intrapreneurs distinguish themselves as leaders with an impact on organizational culture, are innovative and have a need to form new enterprise and business. Moreover, individual and corporate entrepreneurs face mutual circumstances, such as uncertainty and unpredictable outcomes (Knight, 1921; Sharma and Chrisman, 1999).

Compared to individual entrepreneurs, who need to have an understanding of the overall environment, intrapreneurs also need to have a broad comprehension of the organization's internal and external environment (Hornsby, Kuratko and Zahra, 2002). Especially in regard to the formal organizational structure, intrapreneurs have to show persistence, diplomacy, and the willingness to take risks. They can be faced with internal aspects that may hinder their entrepreneurial activities (Hellriegel, Jackson and Slocum, 1999). This may include resistance from colleagues and managers, and going through a rigid, established venturing process. Therefore, they also have the ability to encourage and motivate other employees to innovate.

As stated earlier, one common characteristic of entrepreneurs is their tolerance for risk and uncertainty. Kihlstrom and Laffont (1979) propose that risk-averse individuals become intrapreneurs, while more risk-tolerant agents become entrepreneurs. This can be explained that intrapreneurs have a separation between

individual and organizational risk-taking (Antoncic, 2003). In case of failure, an intrapreneur can be reallocated within the firm, while the individual entrepreneur would suffer personal costs, lose the position and has to search for a new occupation.

In addition, research indicates that higher expected income is associated with a riskier occupation, hence individuals who prefer more income, have a higher need for independence and ownership and will therefore have higher individual entrepreneurial intentions (Douglas and Shepherd, 2002; Fitzsimmons and Douglas, 2003). In other words, financial reward is necessary for individuals engaging in entrepreneurship with great personal risks, and a higher income predicts an entrepreneurial instead of an intrapreneurial career.

3 Chapter Three: Methodology and Design

3.1 Research Approach

The aim of this research study is to gain knowledge, examine and compare the entrepreneurial activities and processes of independent new ventures and corporate new ventures in the United States. A qualitative research approach (Saunders, Lewis and Thornhill, 2009) is proposed for this study, which allows a deeper and fuller understanding of the phenomenon of entrepreneurship, the human behavior and actions within the natural settings. Moreover, qualitative research has an emphasis on processes and meanings that are hard to measure in terms of quantity or frequency but likely to gain insights and discovery (Denzin and Lincoln, 1994). Therefore, the possibility to investigate aspects of why and how certain decisions are made, as well as the questions of what, where, and when seems appropriate for this research.

3.2 Sampling

This research study investigates entrepreneurial activities and processes from two different levels, hence the sample for this study includes two sample groups. The first group consists of independent new ventures which are established by individuals, also called entrepreneurs. The second group includes corporate new venture, initiated and controlled by larger companies and their employees, so-called intrapreneurs.

Sample: Independent ventures

The sample of participants from independent new ventures focuses on entrepreneurs, who have founded or have been engaged in the process of building an independent venture within the last three years.

Entrepreneurs in the web-based technology industry have been approached, to ensure comparability across the cases with similar characteristics and industry conditions. The new founded firms operate in the highly dynamic internet market, leading to significant importance of innovation.

Sample: Corporations and corporate ventures

The second sample group includes established, large corporations. For this research, the standards were based on the North American Industry Classification System (NAICS), which is used by federal statistical agencies in classifying business establishments. The purposive sampling approach allowed only the inclusion of companies fulfilling the following criteria:

- company has a history of more than 25 years,
- company has more than 1,000 employees,
- company has a yearly revenue of more than \$50 million.

Additionally, the firms have been selected based on criteria for corporate entrepreneurship defined through theory and involvement in innovation and entrepreneurial activities. Hereby, the corporations have established new ventures in order to find new opportunities, initiate new businesses, and create an entrepreneurial environment.

The overall sample consists of four cases: two independent new ventures from the web-based industry and two corporate new ventures from the media and automotive industries. An overview of the cases and ventures can be seen in Table 4.

	Case 1	Case 2	Case 3	Case 4
Company	Social Media	Languages	Media	Automotive
Interview Partners	Entrepreneur 1 Entrepreneur 2	Entrepreneur 3	Intrapreneur 1 Intrapreneur 2	Intrapreneur 3 Intrapreneur 4
Business	Web-based technology	Web-based technology	Media	Automotive
Foundation	2011	2011	2010	2011

Table 4: Case overview

For this study the method of qualitative, non-probability sampling style was used, identifying and addressing individuals which fulfill the previously defined characteristics and represent the research subject (Saunders et al., 2009). Though with this approach the sample is not representative, it gives detailed insights into the feelings, thoughts, and outcomes of the interviewed participants.

3.3 Data Collection

The research study involved semi-structured, in-depth, and open-ended interviews, one of the most common methods of qualitative research in order to collect responses. This method was chosen to give frame to the discussion of several questions but also enables to collect the participants' point of view and gain new insights, as they express their motivations and their own opinions on what they think is happening, share experiences, and their beliefs (Boeije, 2010; Cassell and Symon, 2004).

The interviews focused on three main topics: the personality, the entrepreneurial process, and the organizational setting. Personality includes the background and education of the participants, and motivational factors to become an entrepreneur or intrapreneur. Moreover, it focuses on typical characteristics, traits, and behavior of entrepreneurial-minded individuals.

The entrepreneurial process was divided in its three main phases: ideation, development, and execution. Questions regarding each phase were prepared and proposed to the participants. In addition, the organizational culture and structure of the new ventures were investigated further.

3.4 Data Analysis

After conducting the face-to-face interviews, the author followed the coding procedure suggested by Corbin and Strauss (2008). The first step was the transcription of the interviews. Insights on the quality of questions or answers gained during the transcription were incorporated to the interview guideline.

In a second step, open coded were assigned to each interview by disaggregating the data into units described with labels and deriving their meaning directly from the data.

The next step was the axial coding, recognizing relationships between categories and rearranging them hierarchically with interconnections and sub-categories. The last coding step was selective coding where categories were integrated to produce theory and identify central core category to which the other categories were linked. This was accomplished by linking and organizing codes within one concept to create

categories. These networked overviews were used as a basis for generating insights and theory (Corbin and Strauss, 2008).

The theory emerging from the interviews were compared with the existing literature. Discovered similarities increase the validity of the results and tie together old and emergent theory. Arising differences present opportunities for new concepts and will be either reinvestigated or proposed as future research (Eisenhardt, 1989).

3.5 Ethical Consideration

Since new ventures and information within organizations are a confidential matter, strict confidentiality was kept. The interviews were anonymized and cannot be found in public.

4 Chapter Four: Findings

Case 1: Social Media

Case description

The company *Social Media* is an independent online web-based venture, which allows its community to share, review, and recommend places. Making use of location-based services, the company was one of the first to apply the new technology within their products. The team of founders consists of four members and the company was founded in 2011.

Entrepreneurial Process

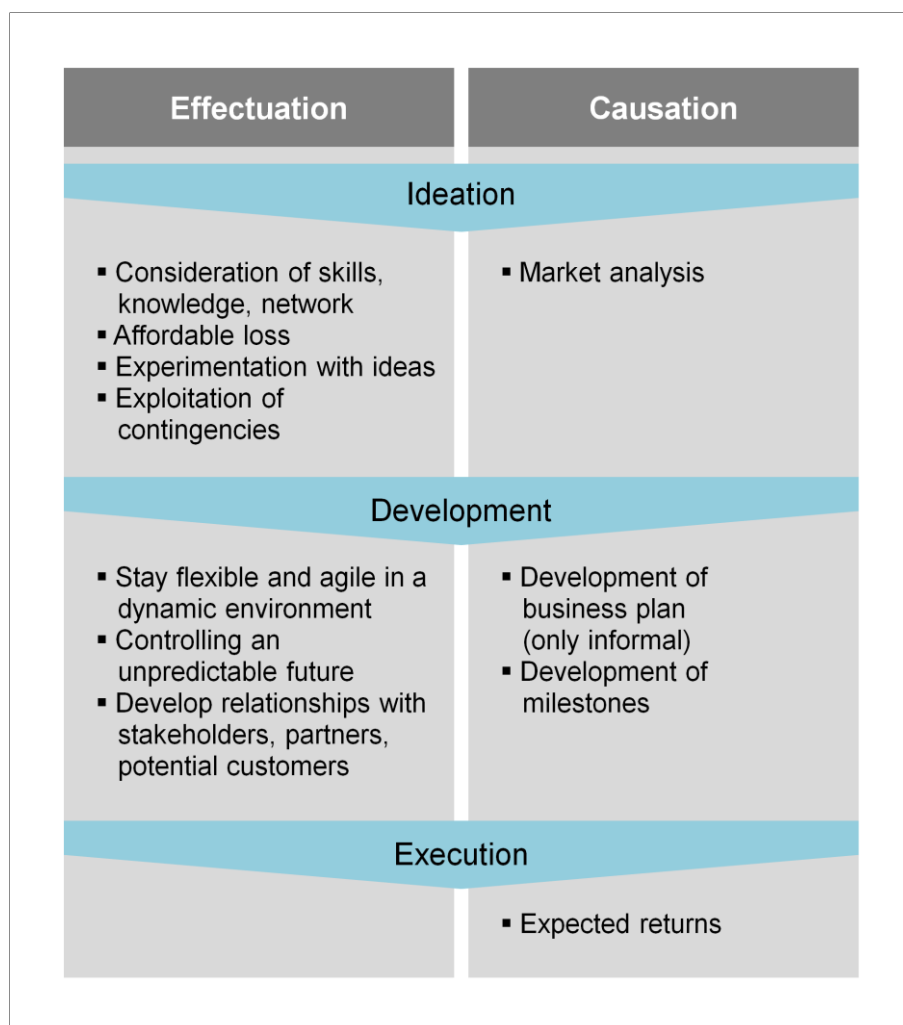


Figure 9: Overview of the entrepreneurial process of *Social Media*

Phase 1: Ideation

The entrepreneurs have taken a class in entrepreneurship in college, where they have worked in a team together. They did brainstorming sessions in order to gather ideas, and have considered their personal interest and passion. Using effectual reasoning, they have also thought about their skills, knowledge, and what they could actually build.

The entrepreneurs stated that communicating within their network and talking to many people, they were able to identify existing problems, unsolved needs and what a good solution would be.

The new technology *location-based services* was only emerging, but the entrepreneurs recognized the potential and exploited contingencies. By discussing and evaluating advantages and disadvantages within their network, they received a lot of valuable feedback, identified people's needs, and recognized a market potential for their idea.

It can be concluded that the entrepreneurs of *Social Media* made use of effectuation during the ideation phase and exploited contingencies, took their personal involvement, interests, background, knowledge, and network into account. In addition, they showed causal elements by conducting market analysis and considered potential competitors.

Phase 2: Development

Business plan

The business plan, a step-by-step rational process, helps individuals to predict and prepare for the future entrepreneurial process and is an example of causal logic.

The entrepreneurs have created a business plan, which was part of the class they have taken on entrepreneurship. However, they stated that it was only informal and that they did not make much use of it. Especially in fast and dynamic industries, the market environment changes rapidly and the entrepreneurs stated that they have to be flexible and react to market changes. Therefore developing a business plan and predict months and years ahead did not seem necessarily for them.

Milestones

Setting up a new venture is inherently risky and has a significant probability of failure. Therefore, milestones are formal breaks that allow the individual or team to evaluate the performance along the way and support to assess the project. In addition, milestones enable to learn from results, make adjustments to strategy and objectives in order to proceed.

The entrepreneurs stated that they considered two aspects as milestones during the development phase. First, they set up user-based numbers and figures from and for their products. The second milestone included financing and raising money. They agreed that looking at various factors throughout the process helped to improve and grow their venture.

Attitude and assessment of risk and uncertainty

New ventures are exposed to high risks and uncertainty. Especially for entrepreneurs setting up an independent venture the entrepreneurial process is associated with high personal risks. However, the entrepreneurs stated that they are aware of this aspect and that it is an acceptable part of being self-employed. Especially in the web-based industry, the environment is very dynamic, changes, and evolves quickly. Hereby, new contingencies, but also new competitors can occur anytime.

Showing signs of effectual reasoning and applying the principle of affordable loss, the entrepreneurs actually do not regard being self-employed as a risk, but rather a risk not to be self-employed and independent.

Moreover, they stated that they don't think about risks, uncertainty and consequences too much. They stated that the entrepreneurial process consists of trial and error, making mistakes but the important thing is that one learns from experience and process. They focus on experimenting with ideas and options with the given limited means, which is one of the principles of effectuation.

Another approach to assess risk and uncertainty applied by one corporate venture is the *lean startup* approach. The approach for launching businesses and products was originally developed for independent individuals and teams to start businesses. It relies on validating learning, scientific experimentation, gain valuable customer

feedback, and iterative product releases to shorten the product development cycle. The founders of *Social Media* also took the approach into account by launching their product quickly, engage and learn valuable insights from their customers and adopt changes. They were constantly working and moving the product forward.

External partners

The entrepreneurs stated that having partners is important, and they aim to have good relationships with them. They actively sought for partners, and stressed the collaborative and open community of entrepreneurship that is rather unique.

Resources

The entrepreneurs stated that the team members are the most important resource, as they are the driving factor behind the idea.

Funding

The entrepreneurs described the early phase to find a lead investor as rather slow and hard. Once they have launched their product and raised more public attention, it was easier to receive external funding.

Phase 3: Execution

Measurement of success

The entrepreneurs have many different views of what success means and how they would measure success. On the one hand, they associate professional success with profit and revenue, exit for the company. On the other hand, on a personal level they associate success with personal motivation and happiness, and with the ability to make people's life's easier with their products.

Protection against competitors

The entrepreneurs stated that it is generally difficult to protect against competitors. The new venture is acting in a technical web-based industry and the participants described their market environment with many competitors at various levels. However, they feel not threatened by competition, but rather see it as stimulation to try and build their own product better.

Evaluation

When looking at the overall entrepreneurial process, the entrepreneurs assessed their entrepreneurial process positively. They stated that they would do things differently the second time as they were inexperienced and did many tasks for the very first time.

In addition, they stated that they would test and launch their products earlier and engage with their customers. Other challenges included the assessment and hiring new employees, finding of investors to raise money, and dealing with the press. Nevertheless, being optimistic entrepreneurs they regarded the entire entrepreneurial process as a constant learning process.

Personality

Background

Both entrepreneurs have a university degree in business studies and computer science. In addition, they have participated in a class about entrepreneurship while in college, where they have first worked on an idea, which then became a real-life project.

Motivation

The entrepreneurs stated that starting a company was never something they thought about earlier in life, and only learnt about the option of being self-employed during college. Eventually, this has affected their decision to start their own venture.

The entrepreneurs stated that the primary motivational factor to start a new venture was freedom and the possibility to be “one’s own boss”, which correlates to previous studies regarding the need for autonomy. They stated that they can have the most direct impact and feel it is exciting to see the fast development of one's own actions. Hereby, they are motivated by being in charge of making own decisions and follow own ideas. In addition, despite the benefits of working in a large corporation, another motivational factor mentioned is previous experience. Another motivational aspect they mentioned is the community of entrepreneurship and the new venture’s culture.

Characteristics

The entrepreneurs in a new venture described themselves as driven, ambitious, and passionate. Especially in the early phases, those characteristics are needed in order to survive the critical first months.

Moreover, they stated that stupidity and craziness - in a positive sense - are needed characteristics to start a new venture. They stress the importance of believing in oneself and never to give up. They mentioned the long hours, drawbacks and many challenges entrepreneurs have to face, hence those characteristics are needed.

Another important characteristic mentioned is the willingness and ability to accept risks and uncertainty, as well as to be comfortable to deal with them. In addition, taking risks includes not being afraid of failure and to make mistakes.

Furthermore, the entrepreneurs stated that creativity and ideation are important, as it allows one to come up with solutions, new products and services, and going after opportunities in a new and different way.

Other important characteristics mentioned are being open-minded, social, and communicative. Especially in the early phases, the entrepreneurs will need to pick and work out a good functioning team as well as build strategic partnerships, in order to build and grow their new venture successfully.

In regard to knowledge and skills, the entrepreneurs stated that having good knowledge of the respective industry is vital. They claimed that one should familiarize themselves enough to understand the basics of the industry.

Conclusion

It can be stated that the entrepreneurs show effectual as well as causal reasoning during the entrepreneurial process.

The entrepreneurs make means-based actions, focusing on their background, skills, and knowledge. Especially in the ideation and development phase, the entrepreneurs show effectual elements by actively seeking for partnerships and alliances, sharing and discussing their ideas within their network.

Although the entrepreneurs applied causation elements when assessing an idea, such as development of a business plan and consideration of competitors, they also took their personal interest into account. They did not merely focus on competitive analyses but rather on affordable loss and exploitation of opportunities and benefits. Nevertheless, they also consider expected returns once the venture reaches maturity, a sign for causation.

Case 2: Languages

Case description

Languages is a new independent venture, founded by a single entrepreneur in 2011. It is a translation platform with many other features. Eventually, the platform will become a language learning community.

Entrepreneurial Process

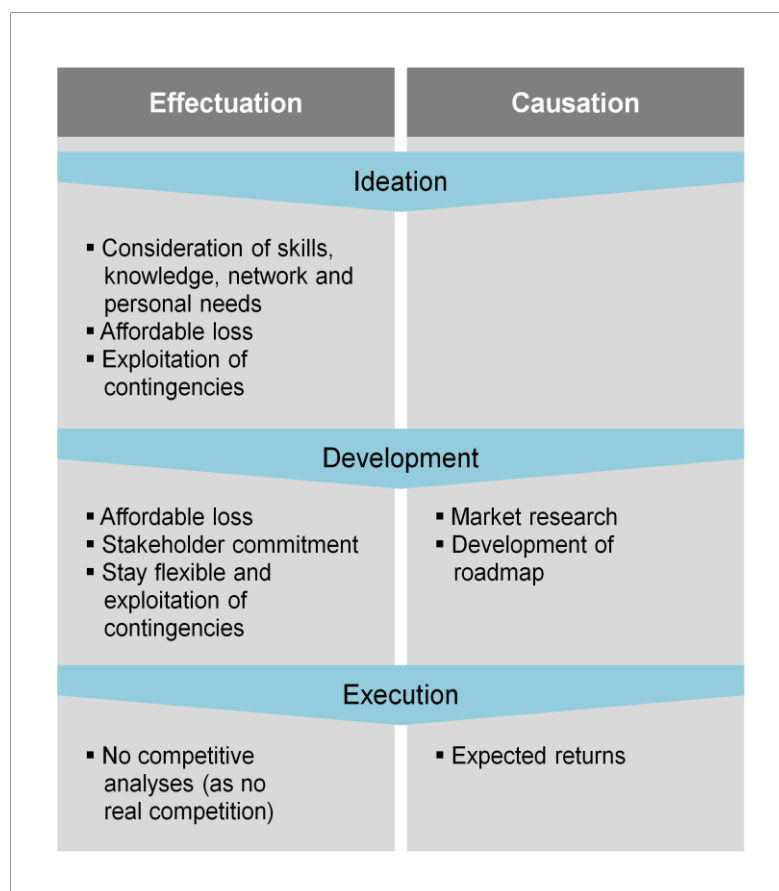


Figure 10: Overview of the entrepreneurial process of *Languages*

Phase 1: Ideation

The idea for the new venture developed from a personal need and experience of the entrepreneur. He first had the idea many years ago while he was missing a specific product regarding languages and translation services. Being a creative person, he always had many ideas in his mind but kept going back to the one idea. During the years, he has gone through many iterations of the idea and talked to many people in his environment that also experienced the same need and recognized the potential of the product. He received a lot of feedback, thought about the problem for a long time and decided to work on the idea.

Phase 2: Development

Market research

Although the entrepreneur conducted a market research and analysis, he stated that he rather decided based on intuition and a “gut feeling” rather than entirely believe and accept numbers, facts, and figures made during the research.

In addition, although everyone uses and speaks languages, the entrepreneur described that there are not many competitors in his market environment. He stressed the importance of high quality and wants to produce the best available product.

Milestones

During the development the entrepreneur did not set fixed milestones, but rather had “feature milestones” and made use of a roadmap. He stated that especially in the software technology industry, it is difficult to plan and predict as it is “more difficult and so abstract”, compared to other industries.

Attitude and assessment of risk and uncertainty

The entrepreneur described himself as risk averse and thoughtful of things that can happen in the entrepreneurial process. However, he stated that he is aware of the risks and uncertainty and is prepared for that.

External partners

The entrepreneur stated that having partners is important, especially when taking external funding. The investors will overlook the companies' portfolio, existing partnerships, and value synergies. Besides, having external partners can be beneficial in terms of feedback, support, and advice.

Funding

The entrepreneur had saved up money and took debts in order to start and work full-time on his new venture. However, he stated that he knew how the situation as an entrepreneur would be and was prepared. In addition, he mentioned that once his product will launch, he will raise money in order to hire employees for his new venture.

Phase 3: Execution

Measurement of success

The entrepreneur stated many different views of what success means to him. First, he considered money as a representation of success and value of what one is "putting to the world".

Moreover, he associated success quantitatively with the number of users and customers, but also qualitatively as he wants to add value to their lives. Especially with his product, he has a social goal and wants the world to connect more.

In addition he mentioned that being recognized and receiving positive feedback and reviews is also a way to measure success and gives him personal satisfaction.

Protection against competitors

The entrepreneur stated that it is difficult to protect against competitors. Moreover, he values competition as it enhances innovation and entrepreneurial activities, and keeps improving his products.

Evaluation

The entrepreneur assessed the overall entrepreneurial process positively. The main challenge was to acquire general knowledge in many unknown areas, such as legal rights, technology, human resources.

Personality

Background

The entrepreneur has a university degree in social science and has several experiences as a technical consultant in various independent ventures in different countries.

Motivation

The entrepreneur mentioned various motivational factors to start his own new independent venture. Similar to other entrepreneurs, the participant stated that being self employed, be one's own boss and consequently freedom were important aspects. He has always been independent and wants to take control over his own actions, instead of being employed in a corporation and let others tell him what to do. This stresses past findings regarding one's locus of control. Moreover, he feels that being an entrepreneur he can have the most possible impact and likes to have authority over others.

Besides the need for autonomy, he previously has made bad experience within large corporations. He felt very limited and constrained in his ability to be creative and how he could contribute to the company. Moreover, he felt that large companies are very structured and bureaucratic.

The entrepreneur also associated freedom with money, and the ability to be independent. Therefore, monetary incentives were also a motivational factor to become self-employed. He claimed that money is important as one cannot do anything without it, but besides living a "nice life", he wants to build and invest in other "important" projects.

Another motivational reason to become an entrepreneur was timing and the lack of alternatives after finishing college. The participant stated that he graduated during the economy crisis with lack of possibilities. Combined with his self-starting personality, he stated that becoming self employed seemed like the only alternative for him.

Characteristics

The participant stated that entrepreneurs generally have a mission, are passionate and driven to accomplish things. In other words, they have a high need for achievement. They get personal satisfaction out of building things, products and even organizations. He identifies himself with those characteristics and traits.

Moreover, based on the locus of control, the participant stated that in order to achieve things entrepreneurs are often stubborn and do not care what other people think. He described this characteristic as having a “disregard for rules”.

However, he also stated that the surrounding environment and family situation of an individual changes the perception of risks. For example, having a family and children, one has other priorities and is more likely to be risk averse than those who are not committed. Moreover, the entrepreneur also mentioned that the geographically location and culture can have a major impact on one’s entrepreneurial characteristic. In some countries and regions, entrepreneurship is more supported and fostered, with many opportunities and energy.

Besides having characteristics and traits of an entrepreneur, the participant stated that having a background in the respective industry is vital. Acting in the technical web-based environment, the participant has a technical background and has learnt the basic skills in order to understand the business.

Conclusion

It can be concluded that the entrepreneur often showed effectual reasoning during the entrepreneurial process.

When becoming an entrepreneur, the participant took affordable loss into account, exploited contingencies, focused on his background, skills, and knowledge. He engaged and interacted within his network, in order to analyze, develop, and evaluate his product. Although he conducted market analysis and considered his market environment, the entrepreneur relied mostly on his feelings and instincts.

Case 3: Media

Case description

In the last years, the media industry has gone through many changes, facing challenges with new technology, digitalization, and globalization. The corporation *Media* reacted and the new venture *Digital* was established in 2010.

Organizational culture and structure

Being a new venture within an established corporation, the intrapreneurs had to deal with various perceptions towards their new founded venture. In the beginning of the establishment, the new venture needed to communicate and actively promote their unit. Especially in the traditional industry, other business units felt threatened by new technologies, digital development, and new markets. The employees were not familiar with innovation, were intimidated and consequently feared for their jobs and status.

Being an established company with a long history, the organizational structure can be described as hierarchical, which can lead to political fighting and competition across divisions.

Nevertheless, the intrapreneurs described that the top management of the corporation has supported the establishment of the new venture. Moreover, within the first year of establishment, partnerships, relationships and work-flows have been formed, joint projects have been completed and the support of other divisions is constantly growing.

Entrepreneurial Process

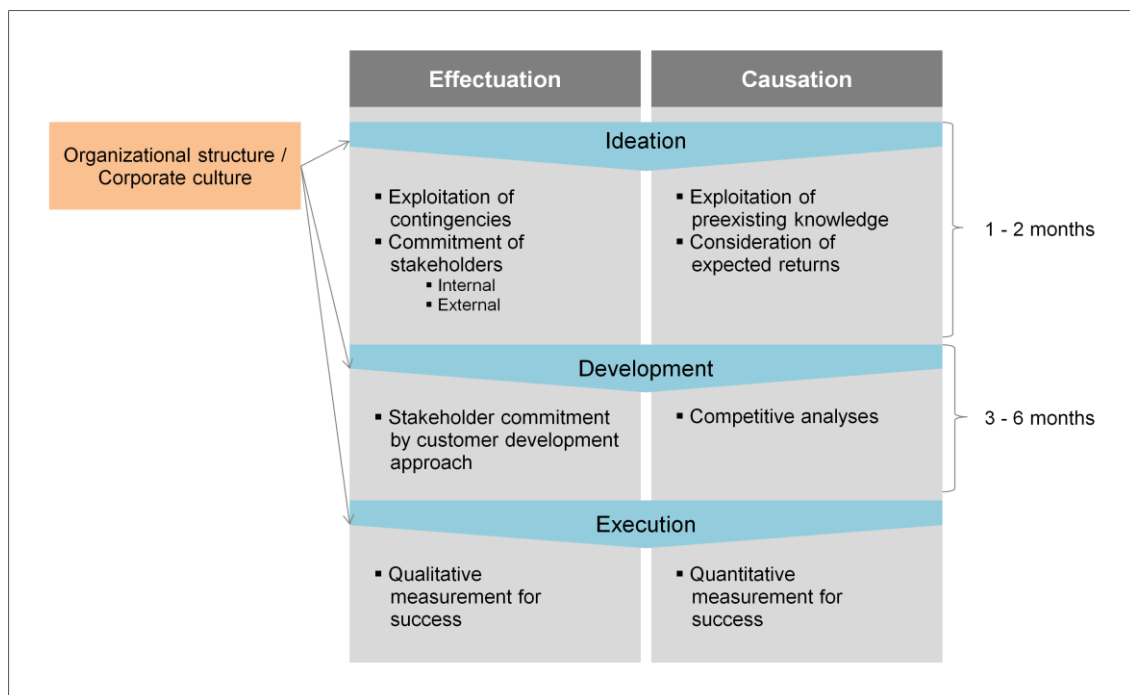


Figure 11: Overview of the entrepreneurial process of *Media Digital*

Phase 1: Ideation

The intrapreneurs mentioned various ways of tackling the idea generation phase. Hereby, signs of causal and effectual reasoning are taken into account.

The established corporation has preexisting knowledge within the organization which forms competitive advantages. Hereby, the intrapreneurs stress the importance of an open communication and interaction with other business units, where everyone is sharing, exchanging and discussing ideas. Having a contact person in each division has been proven to be very helpful.

However, the intrapreneurs also stated challenges during the ideation process. Within a large organization the new venture is usually not as flexible because of the inertia of the size. Communication can be slow and inefficient, and shared responsibilities, different perceptions and experiences of many employees have to be taken into account.

The intrapreneurs stated that their given goal is to improve their core business, create business opportunities and consequently increase revenue for their company. Using causation process, the intrapreneurs choose between means to create that

given goal. Hereby, they focus on incremental and push innovation in order to support their parent company. New projects often need to match the strategic fit from the corporation, therefore radical innovation is often outside the organizations' norm and rarely possible. The employee stated that his company has no resources in terms of capabilities, time, and funding to do big leaps in innovation, and therefore it's even better to do incremental innovation in order to limit the risks. Furthermore, he stated that with radical innovation, there is higher resistance, uncertainty, and insecurity.

However, with growing pressure and shrinking market share, the intrapreneurs also stated that the company realizes the need to be more innovative, develop a corporate culture to take more risks and also look at broader sense, investigate and exploit opportunities. Hereby the new venture aims to develop radical, breakthrough, and push innovation.

In addition to generate ideas within the corporation, the intrapreneurs also actively look outside of the company and monitor developments in the same and other industries. Hereby, the employees are inspired and follow the entrepreneurial community. If new technologies can be applied and is complimentary to the new venture, the team will generate ideas and exploit contingencies.

Besides aiming to establish strategic alliances with other large corporation, they also keep close contact with various independent new ventures to find ways to collaborate. However, due to the different statuses and reputation it often becomes a challenge to work together, as each party wants to have their saying in the relationship.

Phase 2: Development

After the ideation phase, the team uses three main criteria when deciding to pursue an idea and turn it into a project. First, they evaluate if the idea has sales opportunity and gain profit for the company. Second, if the idea is a niche product with potential to fill an existing gap and lastly, if the idea can be re-useable within the company and consequently increase efficiencies. With those criteria and applying causation reasoning, the corporate venture tries to predict and control several aspects of an uncertain future.

In addition, during the development phase the new venture also looks at competitors and their activities. It is possible that ongoing projects will be cancelled if other large corporations release similar products earlier in the market, or the intrapreneurs feel that the products will not be successful.

However, the new venture does not develop business plans upfront, which would underline their causal reasoning. Instead, they stated that innovation is about learning and often they trust their instincts and intuition. Especially in their fast, dynamic markets with always changing technologies, the team shows effectuation and aims to stay flexible and exploit contingencies. Although no business plans are developed, the new venture uses milestones to track the development process.

Risk and uncertainty

The intrapreneurs stated that within their company it is an accepted fact that every project is a risk. Especially in the web industry, products and services are quickly evolving, costly to develop and many competitors in the market. In order to assess and counteract riskiness and uncertainty, the team is trying a customer-focused approach, act like an independent venture and develops a direct relationship with consumers of their products and learning from them. This approach will give customers what they want and let the new venture know what customers desire and delight. Consequently, by interacting and engaging with stakeholders in the process, the new venture aims to minimize risk and uncertainty. In addition, showing effectual elements the venture has close relationships with external partners and builds strategic alliances in order to reduce risk and uncertainty.

Funding

When initiating and developing a new idea or project, the resource funding is an important aspect in the entrepreneurial process. The corporate venture has a budget allocated for their projects from the corporation. Although really good ideas are rarely rejected due to financial reasons, the intrapreneurs would appreciate more resources in order to experiment and develop more products.

Phase 3: Execution

Measurement of success

Generally speaking, quantitative measurements, such as revenue and sales, are taken more seriously when measuring success. However, depending on the companies' mission statement, success can be interpreted differently. Moreover, especially in digital development, it is difficult to assess the value of a product. Therefore, customer reviews and feedback are equally important factors for the success of the new venture.

In addition, especially in terms of radical innovation, the intrapreneur stated the importance of qualitative measurement for success, such as user feedback or positive reviews as a return on investment cannot always be realized. Technology and products are always developing, therefore learning from customers is stated to be very important. Hereby, the employees learn, adapt, make changes, iterate and keep going to constantly improve their products. That is what the new venture generally strives for.

Evaluation and Challenges

When assessing the overall entrepreneurial process, the intrapreneurs stressed the importance of an open, collaborative, and entrepreneurial culture where everyone in the organization can be involved. However, due to organizational structure and culture, corporate venture cannot act as flexible as an independent venture.

They stated that the biggest challenge within the entrepreneurial process is the limitation of resources. Although there are good ideas, the new venture has not the capabilities to pursue them. With a larger staff, the new venture would be more involved in the day-to-day development, status meetings and are constantly updated on the progress of the projects. Moreover, with the availability for more resources the team could be more agile, work on more ideas, and develop them faster.

In addition, the intrapreneurs would like to have the creative freedom to do innovative and ground-breaking products without looking at profits and revenue. Another challenge is that the success of innovative products heavily depends on marketing.

Personality

Background

In the new venture, the background and education of employees is mixed. While some employees have a purely technical background, others have a degree in business or social science. This highlights the diversity of employees within corporations.

Motivation

The employees experience many advantages and safety of working in a large organization. Besides benefits and social safety, the intrapreneurs work in a small team, can be creative and develop innovation. Another incentive mentioned is the reputation to work for a large corporation, and develop products that are potentially used by millions of people.

Case 4: Automotive

Case description

The company *Automotive* is an automobile manufacturer in the United States. The new venture was established in 2011 in order to foster innovation and entrepreneurial activities. They focus on innovation and processes behind innovation, find new revenue streams, and new business opportunities for the organization. In addition, they concentrate on cultural change and drive change management forward to update the company in becoming more innovative.

Organizational structure and corporate culture

The organizational structure can be described as hierarchical. The hierarchical structure makes the entrepreneurial process challenging, as it takes a lot of levels in the organizational chain to make decisions. Consequently, the intrapreneurs mentioned that companies with high perceived power differential tend to be less innovative than those with less hierarchical structure; therefore they aim to reduce the power structure and drive the organization towards an innovative culture that allows being competitive with other corporations.

Furthermore, the participants mentioned a lack of strategic direction from their management towards entrepreneurial activities. With a high percentage of failure for innovation and new technology, the intrapreneurs stated that the company often does not see the value in the early phases. Hereby, the intrapreneurs stressed the importance of support from top management in order to create innovation and be entrepreneurial. Although the intrapreneurs realize the urgency and necessity for entrepreneurship; they do not feel the support from their management in terms of resources, time, and money. The participants described that without active support of management, great ideas and innovation will eventually “be killed”.

The intrapreneurs stressed the importance of an organizational culture which supports entrepreneurial activities and welcomes innovation and change. The aim of the intrapreneurs is to develop an organizational culture with trust, confidence and transparency, as well as greater collaboration and willingness to share information within the company, hoping that it will lead to more innovation.

However, they described their own corporate culture towards innovation and new business development as careful and slow. The company has been very successful in the past, focusing on high operational efficiencies and pushing quality and price barriers. Showing causal elements, the strategy of the corporation was driven by sales, revenue, and expected returns.

The new venture strives to develop corporate culture into being more innovative. Nevertheless, it is a slow process and cultural change involves many employees and various perceptions.

Another characteristics associated with entrepreneurship is the willingness and acceptance to take risks. Although the new venture aims to exploit contingencies, seeks for opportunities and is willing to take risks, the corporate culture within the organization can be described as rather risk averse. The intrapreneurs reported that their company is afraid to take risks and are fairly conservative, focusing mainly on their core business. They associate this challenge with the companies’ long history and that the organizational culture has been developing for decades, therefore not easy to change. Nevertheless, there is recognition within the corporation for the need to change and become more entrepreneurial.

In the beginning, the new venture had received mixed perceptions towards their new group. A lot of explanation, justification and definition of their work and responsibilities were needed, as other units didn't know where they would fit in within the company. The intrapreneurs actively promoted the new venture and over the first year, their work and progress has been recognized and other divisions have supported them.

Nevertheless, they still feel some disapproval against their venture as some employees within the company do not feel the need to think about a long-term strategy and are comfortable within their business.

Entrepreneurial process

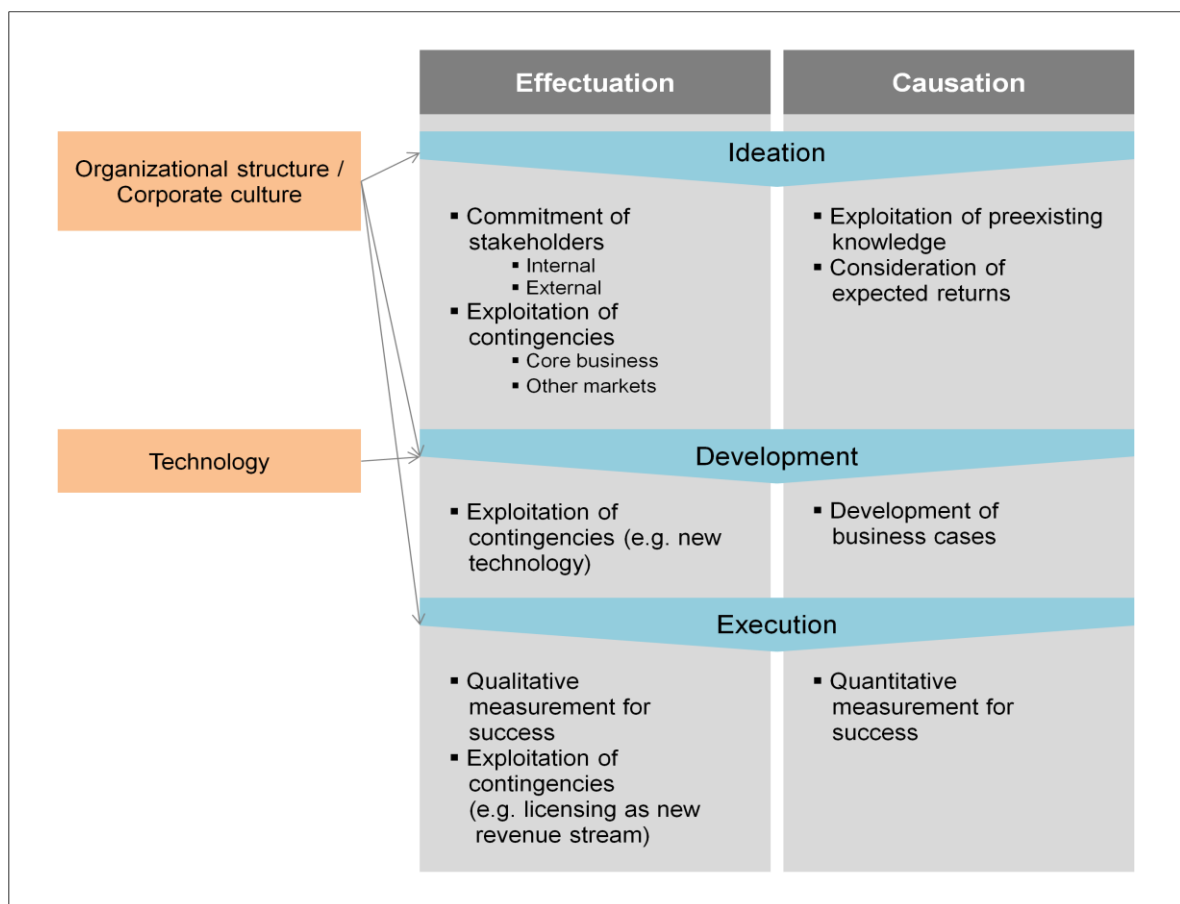


Figure 12: Overview of the entrepreneurial process of *Automotive*

Phase 1: Ideation

In the ideation process, the new venture aims to include all employees within the corporation. They are in the process of developing an internal idea sharing platform where employees can post and share ideas, have the opportunity to receive valuable feedback, develop ideas further while others can support to formulate, analyze and evaluate the potential ideas. This way the new venture wants to capture all opportunities in different forms. Taking the effectual patchwork quilt and lemonade metaphor into account, their vision and believe is that every single employee in the organization has the opportunity to be innovative and contribute ideas.

Applying effectuation in the ideation phase, the intrapreneurs like to experiment with many strategies with their given means, competencies, knowledge, and resources. Hereby, they evaluate the unmet need of customers but also consider what could happen in the future. Besides focusing on their core business in automotive, they also aim to exploit contingencies in other markets and businesses. Hereby, the new venture is looking to develop and form strategic partnerships with corporations in other industries in order to share expertise and work collaboratively.

Past research has differentiated between incremental and radical innovation. Hereby, the activities of the new venture depend heavily on the companies' strategy and goals itself. Nevertheless, the new venture currently has their main focus on incremental innovation and improving their core business. Innovations have to match the strategic fit from the parent organization. Therefore, radical innovation is often outside the organizations' norm and not possible due to the companies' culture and fear of risks. The organization feels uncomfortable and do not like to invest or fund in a high level of newness but rather focus on incremental innovation.

However, with growing pressure and shrinking market share, the intrapreneurs stress the value to be more innovative, develop a culture to take more risks and also investigate opportunities outside their core business.

Besides the distinction of incremental and radical innovation, past literature regarding innovation has also differentiated between technology push and pull innovation. While a technology pull has been developed in response to an identified need, a technology push implies a new innovation or technology being pushed onto the

market without former expressed need. Hereby, the new venture does some push as well as pull innovation. On the one hand, they develop pull innovation as requested by their parent company or other business units. They improve existing products, provide information, and suggestions. On the other hand the new venture initiates, develops, and pushes new technology and innovation.

Phase 2: Development

The developments of ideas are important internal processes within the new venture and the corporation. Hereby, not only the projects, but also corporate policy, culture, and technology are taken into account and require a lot of internal negotiation.

After the ideation phase, the new venture makes use of a structured approach to evaluate and develop ideas. Hereby, they aim to remain flexible to adjust criteria depending on the different cases. Besides internal and strategic factors, they also consider the market and overall opportunities. Afterwards, they also look at the financial aspects and specific costs. However, although they are in the process of developing a structured approach, they don't want to use a static metric but rather stay flexible and update to internal and external factor changes.

Funding

When developing a new idea, the corporate venture has a limited budget available. Besides funding smaller ideas from their available budget, the new venture aims to co-fund project with other business units apply the bird-in-hand principle of effectuation. Although the intrapreneurs strive for commitment and feedback from others, they experience a lack of willingness from other employees to take risks for new opportunities.

For projects involving a higher budget and other business units, the new venture needs to make a "compelling case", prove the value and importance, and promote the idea to the senior levels of the organization. By analyzing business cases and expected returns of projects, the new ventures make rational decision making and apply causal logic.

Afterwards, they review and make a selection of ideas for further investigation. Hereby, the intrapreneurs develop a business plan and framework for their business models because they want to "answer some of the high level questions". They

stressed the importance for the new venture to receive buy in from senior management. If projects in the development phase are rejected and stopped, they will be put on hold. Reasons to cancel an ongoing project include internal resistance, technology, and external environment. Once the environment changes in the future, those ideas will be re-evaluated again.

Phase 3: Execution

Measurement of success

Generally speaking, quantitative measurements are taken more seriously within the corporation. Hereby, causal logic is applied as quantitative success was described that products and services could generate revenue and profit for the company. However, the new venture also takes qualitative factors, such as direct and indirect feedback, into account.

Evaluation

When assessing the overall entrepreneurial process, the intrapreneuers evaluate it positively. Although the new venture is still in its infancy and no big projects have been executed, the process has been based and set up on academic research and best practices. The employees want to continually improve and learn from experience and projects.

The employees stressed the importance of an open, collaborative, and entrepreneurial work culture. This is vital, fosters, and supports innovation and entrepreneurial activities in general. Hereby, they would like a shift in their corporate culture with more transparency and openness to share information within the company, and an interactive and open communication, where teams across the organization work jointly together. One possibility they mentioned is to include idea generation in the performance review of each division, in order to require everyone to focus on innovation.

In addition, the employees would like their new venture to be given more freedom and flexibility, a flatter hierarchy structure and more access from senior leaders throughout the organization in order to exchange knowledge and build strategic partnerships.

Besides, the intrapreneurs have to make a case when presenting new ideas, instead of being flexible and trying out ideas, develop, and adjust them. One possibility to overcome this challenge mentioned was that the new venture is going to separate from the organization. This way, they are able to create and generate ideas outside the core business, have more freedom, and operate on their own.

Moreover, the new venture would like to have more resources, especially more people in their new venture, in order to do realize more research and more projects. Besides, they stress the importance to receive more support and reward from the organization to take risks, be innovative, and work creatively.

Another challenge for the corporation mentioned is the inability to attract young top talent. The intrapreneurs experienced talented and entrepreneurial employees leave the company as they did not feel the collaborative culture in order to change and drive the organization forward. Hence, one of the main goals for the new venture is to drive the organizational culture towards change and into the future.

Personality

Background

The intrapreneurs have a business as well as technical background. When putting a team together, the employees stated that it is important to have a team which is complimentary of one another, regardless of their personal background and education.

Motivation

There are various motivational factors to become an intrapreneur within a large corporation. On the one hand, the employees can “be an entrepreneur” and embrace their entrepreneurial spirit, and are able to push passion within the company. They have the freedom to “create something from where there currently is nothing” and shape the future of the organization from a lot of different aspects.

In addition, they experience the social benefits from a large organization, which has a high reputation and is one of the largest players in their industry.

Characteristics

Generally speaking, the intrapreneuers are naturally curious and creative and want to try out new things. Moreover, within an organization they need to be able to think strategically, find opportunities and help them promote them within the company.

In addition, intrapreneurs can be described as self-starters and executers, who are not afraid of challenges. Hereby, they are willing to accept risks and uncertainty, as well as to be comfortable to deal with them.

Employees in the new venture are open-minded, social, and communicative. Being a team player and the ability for empathy are also important traits, working within a large company and communicating with diverse business units and employees. Individuals, who can understand and relate to a lot of different kinds of people is important, as well as having true respect in terms of diversity of opinions, experiences, differences, and points of views.

Therefore, they are also motivators and good networkers, maintain and build constantly new relationships across the corporation. They are willing to share and discuss opportunities, as ideas are often not developed by a single person in isolation but because of developing and forming them together. Hence, some characteristics of a “salesman” are efficient.

Furthermore, intrapreneurs tend to be patient as well as impatient and persistent. Patient and persistent in this context means that employees are willing to interact with the process and keep pushing their ideas, in spite of possible occurring challenges. Especially in large corporations, resistance against new ideas, processes and products can be very high. Therefore, the intrapreneuers stated that going ones' own way and at times disregard other opinions and even rules are necessary. In this context, *“to ask more for forgiveness rather than permission”* was mentioned.

Lastly, the intrapreneurs stressed the importance to share and adopt the stated values of the organization.

5 Chapter Five: Conclusion, Implications, Limitations

Generally speaking, corporate and independent new ventures show similarities as well as differences in their entrepreneurial activities and processes. While independent new ventures are still in its infancy and developing, corporations have a long, established historical corporate culture with often a hierarchical structure. Moreover, to some extent companies are not comfortable with risk and uncertainty and mainly focus on improving their core business.

Resulting challenges for the entrepreneurial processes are that new ventures have to promote and defend their ideas to senior management in order for them to be realized, to obtain funding, and other resources. Furthermore, while the intrapreneurs aim to find new opportunities and exploit contingencies outside their core business and develop radical and breakthrough innovation, the corporate culture and structure limits them in their flexibility.

Being a new venture within an established company, corporate ventures often have to explain and justify their existence, experience a lack of real commitment, and are constrained in their ability to be creative and innovative due to corporate culture. These challenges can signify the inability of corporations to create a favorable environment for intrapreneurs within the organization. For that reason, corporate ventures aim to create an environment and culture fostering innovation and entrepreneurial activities. This includes open communication, flatter hierarchy, and rewards for pursuing opportunities. A flatter hierarchy is also consistent with Sathe's (1988) observation that if entrepreneurship is to flourish in an organization, lower-level managers need to be free to identify and pursue promising opportunities. Moreover, it supports the general notion that employee participation at all levels is an essential key to the entrepreneurial process (Burgelman, 1984). In addition, corporations need to be willing to take risks and deal with uncertainty in order to allow innovation to happen.

In contrast, independent ventures encounter more operational problems due to their inexperience. However, they regard the entrepreneurial process as a constant learning experience and want to keep improving their venture.

Taking effectuation and causation theory into account, independent and corporate new ventures show signs of both elements during the entrepreneurial processes. An overview of the entrepreneurial processes of all presented cases can be found in Table 6.

Entrepreneurial Process		Case 1	Case 2	Case 3	Case 4
Ideation	Effectuation	<ul style="list-style-type: none"> ▪ Consideration of skills, knowledge, network ▪ Affordable loss ▪ Experimentation with ideas ▪ Exploitation of contingencies 	<ul style="list-style-type: none"> ▪ Consideration of skills, knowledge, network and personal needs ▪ Affordable loss ▪ Exploitation of contingencies 	<ul style="list-style-type: none"> ▪ Commitment of stakeholders <ul style="list-style-type: none"> ▪ Internal ▪ External ▪ Exploitation of contingencies 	<ul style="list-style-type: none"> ▪ Commitment of stakeholders <ul style="list-style-type: none"> ▪ Internal ▪ External ▪ Exploitation of contingencies
	Causation	<ul style="list-style-type: none"> ▪ Market analysis 		<ul style="list-style-type: none"> ▪ Exploitation of existing knowledge ▪ Consideration of expected returns 	<ul style="list-style-type: none"> ▪ Exploitation of preexisting knowledge ▪ Consideration of expected returns
Development	Effectuation	<ul style="list-style-type: none"> ▪ Stay flexible and agile in dynamic environment ▪ Controlling an unpredictable future ▪ Develop relationships with stakeholders 	<ul style="list-style-type: none"> ▪ Affordable loss ▪ Stakeholder commitment ▪ Stay flexible and exploitation of contingencies 	<ul style="list-style-type: none"> ▪ Stakeholder commitment ▪ Customer development approach 	<ul style="list-style-type: none"> ▪ Exploitation of contingencies
	Causation	<ul style="list-style-type: none"> ▪ Development of business plan ▪ Development of milestones 	<ul style="list-style-type: none"> ▪ Market research ▪ Development of roadmap 	<ul style="list-style-type: none"> ▪ Competitive analyses 	<ul style="list-style-type: none"> ▪ Development of business cases
Execution	Effectuation		<ul style="list-style-type: none"> ▪ No competitive analyses 	<ul style="list-style-type: none"> ▪ Qualitative measurement for success 	<ul style="list-style-type: none"> ▪ Qualitative measurement for success
	Causation	<ul style="list-style-type: none"> ▪ Expected returns 	<ul style="list-style-type: none"> ▪ Expected returns 	<ul style="list-style-type: none"> ▪ Quantitative measurement for success 	<ul style="list-style-type: none"> ▪ Quantitative measurement for success

Table 6: Overview of entrepreneurial process of Cases 1 - 4

The independent ventures show signs of causal as well as effectual logic by conducting market research but basing their decisions on their instincts and feelings and not only on predictions. Especially in a dynamic environment entrepreneurs have difficulties predicting the future and want to stay flexible and agile in order to react to changes in the market environment. Effectual logic favors control over prediction and so discourages doing market research. Nevertheless, giving more attention to market research may not necessarily mean less effectual reasoning, but in fact, it can be filled with attempts to design and envision other possible markets for the future.

Applying causal logic, one corporate venture develops business plans for their ideas in order to predict the future. They make cases for their ideas which are then reviewed by senior management, followed by the decision to either move onto the development phase or stop projects. Although the new venture uses a structured approach, the intrapreneurs make use of effectuation and are similar to entrepreneurs. They want to keep the entrepreneurial process flexible in order to react to internal and external changes and exploit contingencies that arise over time.

Independent new ventures focus on means-based actions, concentrating on their skills and knowledge, experience, and networks. Hereby, entrepreneurs combine their educational background with personal interest and passion, experiment with many ideas to create new products and services.

Although corporate entrepreneurs also show effectual reasoning, they are partially constraint due to the belonging of the parent company and are often goals-oriented. The corporations are afraid to take high risks and therefore concentrate on their core business, incremental innovation, and expected returns. As assumed, they hereby focus on exploiting pre-existing knowledge within the corporation. Nevertheless, the intrapreneurs aim to try out various strategies with their given set of means and exploit new opportunities.

Corporate as well as independent new ventures build new partnerships and strategic alliances. In the early phase of the entrepreneurial process, independent ventures engage within their network and strive for commitment from stakeholders and potential customers to reduce uncertainty. Moreover, by establishing relationships the new ventures receive valuable feedback and are able to constantly develop, adjust, and improve their products.

Similarly, corporate ventures stress the importance of good relationships and strategic alliances. On the one hand, they build strategic alliances with other corporations in order to work jointly and exploit new opportunities. On the other hand, the new ventures also establish and maintain partnerships within the corporation with other business units. However, there are challenges such as loss of control, unstable conditions, and power hierarchy.

Taking the four models of Wolcott and Lippitt (2007) into account, the corporation *Automotive* shows signs of being the opportunist. The new venture builds internal as well as external relationships, and drives ideas and innovation forward. Hereby, they experiment within their limited resources. However, the intrapreneurs in the new venture also aim to move their corporation towards the enabler model, where senior management supports corporate entrepreneurship and where employees across the corporation can develop new business concepts and pursue opportunities with dedicated resources and processes.

The corporation *Media* can be described as the producer model. The company has established the new venture *Digital* which supports the overall organization with corporate entrepreneurship. The corporation has a collaborative culture and has possibilities for potential disruptive new businesses. Hereby, the new venture has dedicated resource authority and ownership over their products.

When individuals start their new venture, as predicted, they focus on affordable loss and show effectual reasoning. For example, they pass on a stable employment with regular income, take on debts, and accept the risks and uncertainty of being an entrepreneur. Hereby, the individuals experiment with many ideas within their given limited means and create various options in the future. However, once the venture is established the entrepreneurs - who have full ownership of their business - also aim to maximize their returns, which is an indication for causation.

In contrast, as previously assumed corporate ventures make use of causal and effectual reasoning, depending on the organizational strategy and culture. Oftentimes, corporate ventures have to focus on their expected returns for the company by demand. Hereby, they try to predict and control the future. However, they would also like to experiment with ideas, exploit contingencies which arise over time, such as new technology, and not focus on monetary targets only.

Another focus of this research was the personality of entrepreneurs and intrapreneurs. Both share characteristics and traits typical for entrepreneurs, as researched in past studies. As Frese (2009) highlighted, they are self-starters, proactive, and persistent. Especially in the early phases, entrepreneurs face obstacles and challenges.

In addition, all entrepreneurs and intrapreneurs have evaluated the entrepreneurial process positively and regard it as a constant learning process. This confirms the notion that entrepreneurial-minded individuals have a high self-efficacy and will take their experience, challenges, setbacks, and feedback and put it into a positive attitude to constantly improve themselves, the process, and performance.

Moreover, entrepreneurs and intrapreneurs are creative, open for experience, driven, and communicative. They stress the importance to share, discuss and develop ideas further. While employees in corporate ventures have to be good networkers and establish relationships with other employees in diverse business units and show empathy, entrepreneurs rely on their personal and professional network and build new partnerships. Those characteristics are also closely related to Brandstätter's Big Five (OCEAN) personality aspects (2011).

In addition, individuals in corporate and independent venture have the ability to recognize and exploit opportunities, create new products and services, and are willing to take risks and deal with uncertainty. In regard to challenges and persistence, entrepreneurs as well as intrapreneurs mention the attitude to "disregard rules" at times.

Another aspect mentioned is the community and working atmosphere in entrepreneurial settings. While the individuals from independent venture value the open and supportive community of entrepreneurs, intrapreneurs also appreciate their work surroundings.

One of the main differences is the need of entrepreneurs to be independent, autonomous, and be their "own boss". Hereby, motivational factors include the ability to make a direct impact, see fast development of one's own actions, and be in control. Those reasons are in accordance to past research regarding the need for achievement and locus of control of entrepreneurs.

Based on the assumption that teaching entrepreneurship can foster students motivation to become self-employed (Cho, 1998), two individuals have only learnt about the option to become entrepreneurs during college and therefore was a driving factor in the decision to start an independent venture.

Moreover, the individuals mentioned negative past experience in corporations, lack of alternatives, and monetary incentives in the future as reasons to become an entrepreneur. In contrast, intrapreneurs value the ability to be creative and be entrepreneurial, and appreciate the safety and social benefits of a large corporation. Moreover, they are able to work within companies with a positive brand and good reputation and reach millions of potential customers with their initiatives.

Another aspect the corporate ventures stressed was the challenge to attract and retain young, talented, entrepreneurial people. Nowadays, companies need to provide an environment for the 'Generation-Y' to be able to think innovative and embrace entrepreneurship. Furthermore, corporate and independent ventures mentioned that the *people* are the most important resource and driving factor in all entrepreneurial activities and processes.

5.1 Contribution to literature

Focusing on entrepreneurial processes and activities of independent and corporate new ventures, this study and its findings contributes to the entrepreneurship literature in several ways.

First, by comparing individuals in corporate and independent ventures directly, similarities and differences were highlighted. Findings show that characteristics and traits of entrepreneurs researched in the past were also confirmed in this study. Those include the need for achievement (e.g. McClelland, 1961), willingness and comfort to take risks, a tolerance for uncertainty and ambiguity (e.g. Hornaday and Bunker, 1970), creativity, and pro-activeness (Frese, 2009). Hereby, findings imply that those traits also describe the personality of intrapreneurs in corporations. In addition, the attributes stupidity and craziness were also associated as entrepreneurial characteristics. They can be related to one's self-efficacy, persistence to face challenges, and obstacles in order to pursue opportunities.

Although results of this research confirm specific characteristics of intrapreneurs, such as the ability to analyze the environment for opportunities (Hornsby, Naffzger, Kuratko and Montagno, 1993), deal with internal resistance of the corporation (Hellriegel et al., 1999), encourage and motivate other employees and the willingness to take organizational risks (Antonicic, 2003), one aspect was not fully confirmed, namely the provision of financial resources (Shrader and Simon, 1997). Hereby, the new ventures only have a limited budget available and often need to consider other funding possibilities, such as co-funding with other business units.

Additionally, findings of this research provide other motivational factors to work in corporate new ventures. Those include a stable work environment and social benefits. Moreover, they have the possibility to work within in a large corporation and lead it into the future.

Third, by examining the entrepreneurial processes of corporate ventures in regard to effectuation and causation, a link was established. Besides Brettel et al. (2012) study this connection has been scarce in the past.

Hereby, two sample groups have been focused on, corporate and independent new ventures. The study showed the application of causation and or effectuation during the entrepreneurial process and its phases: ideation, development, and execution. Findings show that independent ventures use effectuation, focus on affordable loss, build strategic alliances with stakeholders, and experiment with many ideas using their given set of means, such as education, skills, knowledge, and network.

Similarly, corporate ventures also show effectual reasoning. They build strategic alliances within and outside the corporation, exploit contingencies and aim to control an unpredictable future. However, due to corporate culture and the lack of willingness to take risks, new ventures are restricted in their activities. Therefore, ideas and projects are mostly evaluated based on their strategic fit, and the causal elements of expected returns and predictable aspects.

By conducting market research and competitive analyses, corporate and independent ventures show signs of causal logic. However, the entrepreneurs and intrapreneurs base their decisions on their instincts and gut feelings and not only on predictions and numbers.

Moreover, independent ventures aim to release their products early in the market, establish relationships with their customers, receive and incorporate reviews and feedback in order to constantly develop and improve their products. With this *customer development* approach, risks and uncertainty can be minimized. Although one corporate venture also makes use of this approach, another stated that ideas have to be presented in a compelling case in order to be further developed and executed.

In addition, findings imply the importance of organizational structure and corporate culture which fosters and enables entrepreneurial activities. The case findings point out that intrapreneurs are often restricted in their creativity and ability to pursue opportunities and exploit contingencies.

It can be concluded that effectuation and causation are both determinants in the entrepreneurial process of corporate and independent new ventures. A balanced view is taken, depending on the phases and societal context. Consequently, this research provides a valuable starting point when investigating the role of effectuation in corporations further.

5.2 Managerial implications

Findings have relevance for individuals teaching about entrepreneurship, such as colleges and incubators, as well as entrepreneurs and intrapreneurs.

The participating entrepreneurs have only learnt about the option of entrepreneurship during college. Therefore, teaching about the possibility to become entrepreneurs, providing theory and practice, skills and knowledge can support to enhance entrepreneurial activities.

Moreover, by showing the entrepreneurial process of new independent ventures, the cases present how entrepreneurs recognized opportunities, which processes they went through and which challenges and obstacles they had to face and can be avoided. In addition, it shows which characteristics and traits one should possess when deciding to start a new venture.

By providing theoretical and practical use of effectuation, entrepreneurs and intrapreneurs can benefit from the principles, such as focusing on alliances and partnerships, act on means rather than goals, and experiment with ideas and consider affordable loss rather than expected returns. As corporate and independent ventures show signs of both, causation and effectuation, a balanced view is proposed when setting up a new venture.

Moreover, the findings of the study show the importance of organizational structure and corporate culture in regard to entrepreneurship. Hereby, the independent ventures stress an open communication, collaborative culture, willingness to take risks, flatter organizational hierarchies with access to senior management levels, freedom to experiment with ideas, and more resources in terms of funding, employees, and time.

While there are advantages of exploiting existing knowledge within the corporation, there are differences between ideas and projects with low and high degrees of innovativeness. Incremental innovation and projects close to the core business can be planned and predicted using causal approach. However, applying effectuation can show opportunities for radical and breakthrough innovation and can therefore be beneficial in some phases and situations for corporations. Hereby, corporate ventures can learn from independent ventures and eventually, this will help to improve and enhance the desired innovative and entrepreneurial work behavior and consequently increase organizational performance.

5.3 Limitations and avenues for further research

Although it was aimed to carry out the research as best as possible, there are limitations because of design choices and circumstances, time, and resource constraints. Nevertheless, they provide possible directions for future research.

First of all, one limitation of conducting a cross-sectional study is that no inferences about the processes are possible, as presented observations are made at a single point in time. Consequently, only a snapshot of the level of reasoning of the participants was gained. This may not be an accurate reflection of the thought process of the individuals and results, but one deliberately taken. Therefore future

research should consider a longitudinal study where observations, especially regarding causation and effectuation, are made during a longer period at many times.

In addition, the sample size of this study imposes limitations on the findings of this research. Although the sample size of qualitative research is generally small, and appropriate and thorough analyses have been conducted, the possibility still remains that effects and findings have been overestimated and has led to erroneous conclusions.

Another limitation associated with qualitative studies is the methods' reliance on interpretation as findings are based on participants' real life experiences, thoughts, and beliefs. Therefore, information gained during the study is only subjective. Besides, interpretations are doubled, as first the participants express their experiences, beliefs, and examples, and afterwards the researcher interprets the interpretations. Therefore, further researches should make use combining qualitative and quantitative methods in order to cross check the results.

Additionally, a challenge of qualitative research is the potential of data over-load. However, a broad focus with versatility was preferred in order to gain a wide perspective and the possibility to capture different levels of meaning from various individuals and organizations seemed enriching.

The last limitation, as with most qualitative research, findings and results of the study are mostly likely not be generalizable. Due to the fact that the sample is not a random nor a representative representation of all businesses, but rather a purposive sample, the conclusions can only be generalized to the specific group. For example, the companies selected focusing on web-based technology and automotive may differ from other ventures in other industries. For that reason, more research will be needed in order to investigate differences in terms of specific industries.

Finally, the same holds true for generalizing across countries. This research was conducted in the United States, but past research has shown the impact of cultural factors (Hofstede, 1991) on entrepreneurial activities (Weber, 1904). Hence, further research in other regions is proposed.

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