

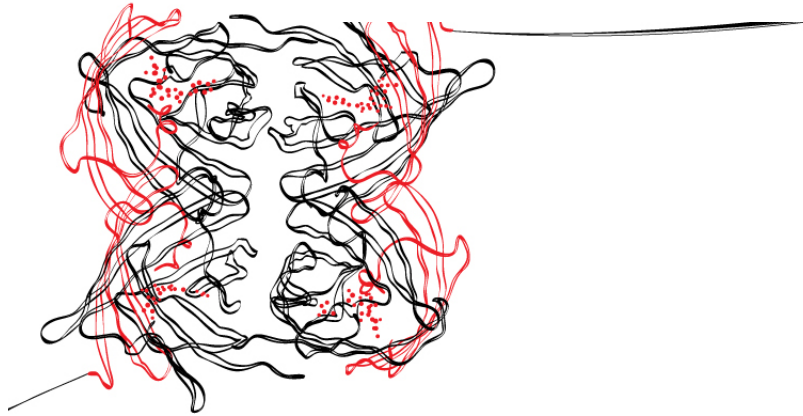
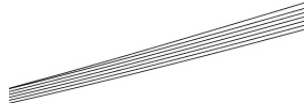
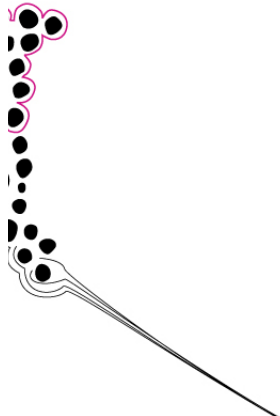
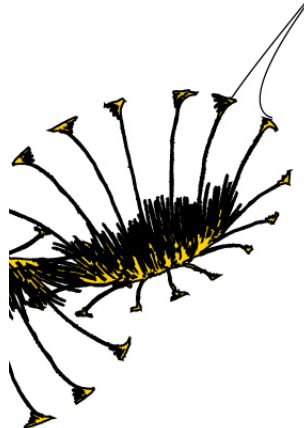
MASTER THESIS

The Speed of the Decision-Making Process in Early-Stage Entrepreneurial Teams

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22.08.2016

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ABSTRACT

For any kind of company, strategic decision-making is a high potential and important aspect of leading the organization to a future goal (Vermeulen & Cursue, 2010). Comprehensiveness and speed of strategic choices are crucial for technology-based startups and teams, operating in a high-velocity environment (Talaular, Grundei & Werder, 2005). However, there is little knowledge about the influence of team characteristics in early-stage startup companies and the relationship towards the speed of the decision-making process. Due to the fact, that entrepreneurial work is completely new by definition, is mostly complex and unpredictable of any outcome and stands under massive time pressure (Baron, 2000). This master thesis research project aims to fill the gap in literature and provide practical findings about the relationship of team characteristics and the speed of decision-making.

The study revealed the importance of team characteristics with regards to the speed of decision-making in early stage startup companies. The conducted interviews identified the most influential team characteristics and the counter play of different team factors. Furthermore, the research stressed the importance for speed in entrepreneurial teams and the quality versus speed of the decision-making in early-stage startup teams.

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1. INTRODUCTION

1.1 Introduction to the Topic

For any kind of company, strategic decision-making is a high potential and important aspect of leading the organization to a future goal (Vermeulen & Cursue, 2010). Strategic decisions are decisions which have the potential of leading towards major consequences and stand in direct connection to strategic goals made by the company (Vermeulen & Cursue, 2010).

The speed of decision-making decides about failure or success of most companies and startups. Improvements in information technologies, fast access to information and rapidly moving business environments set companies under massive time pressure (Oliva & Sterman; Repenning, 2001). According to Talaulicar, Grundei & Werder (2005), strategic decisions and the speed of decision-making are vital for the success of a business and displays a crucial indicator of efficiency for organizations. Especially in the field of entrepreneurship, it is very hard to predict the future (Perlow, Okhuysen, Repenning, 2002). Due to the fact, that entrepreneurial work is completely new by definition, is mostly complex and unpredictable of any outcome and stands under massive time pressure, which is a major problem (Baron, 2000). Chiles, Bluedorn & Gupta (2007) characterized entrepreneurship as: "*...an inherently creative, continuously recombinative and perpetually disequilibrative process – a largely indeterminate process propelled by the spontaneous action and interaction of purposeful individuals, and stabilized by a complex array of social, political, and economic institutions.*"

Within the tech-industry, firms face highly complex decision-making situations, stand under massive time pressure (Baron, 2000) and show a direct need for speed and fast decision-making (Perlow, Okhuysen, Repenning, 2002). Entrepreneurial decision-making is less rational and is rather based on cognitive decision-making strategies (Ucbasaran, 2008). In an environment such unpredictable and fast moving, uncertainty is very high. Referring to Vermeulen & Cursue (2010), uncertainty is the inevitable element in the activities of entrepreneurs, and is higher than ever in the new economy. As a result, Entrepreneurs differ in making decisions compared to executive managers in large and well-established companies (Busenitz & Barney, 1997).

Comprehensiveness and speed of strategic choices became crucial for technology-based startup companies and teams, operating in a high-velocity environment (Talaular, Grundei & Werder, 2005). In most ventures and early-stage entrepreneurial teams, the key decisions affecting the venture's ability to embrace present opportunity and survive over time are made by the team, not by an individual founder (West, 2007). Entrepreneurial teams are mainly responsible for many or even most of the successful major start-ups in modern times (Kamm et. al., 1990). There is a growing number of research papers and management scholars working on entrepreneurial team characteristics (Francis & Sandberg, 2000; West, 2007; Harper, 2008) and speed of decision-making (Perlow, Okhuysen, Repping, 2002). Scholars have long considered the speed of different organizational processes as critical (Perlow, Okhuysen, Repping, 2002). Especially entrepreneurial teams are suffering most from their situation and show a certain *need for speed* (Perlow, Okhuysen, Repping, 2002). Entrepreneurial teams and early-stage startups often decide fast about strategic decisions, business models, or other important issues (Perlow, Okhuysen, Repping, 2002).

However, as of yet, only little is known about which team aspects and team characteristics actually influence the speed of decision-making in entrepreneurial teams. This master thesis research paper aims to close the gap in literature. As the existing literature in the fields of decision-making and entrepreneurial teams only weakly discuss certain team characteristics, this research paper will be focusing on five main categories of entrepreneurial team characteristics. After literature review the following team characteristics could be identified: (1) the **size** of the team, (2) the team **structure**, (3) the **communication** within the team, (4) the **environment** in which the teams are operating and (5) the internal **trust** inside the teams (Francis & Sandberg, 2000; West, 2007; Harper, 2008).

Summarized, the environment of entrepreneurs and early-stage startups is moving very fast and is hard to predict. The influence of strategic decision-making on survival of the companies is as important as the capability of fast and lean decision-making. This paper aims to identify the influential factors of entrepreneurial teams and the relationship towards the speed of the strategic decision-making process.

1.2 Research Questions and Goals

The main objective of this master thesis research paper is to develop a better understanding about the speed of decision-making in entrepreneurial teams and how team-factors have influence on the speed of the decision-making process. Therefore, the following research question should be answered:

"How are entrepreneurial team-characteristics influencing the speed of the decision-making process in early-stage startups?"

This research project focusses on the team characteristics of entrepreneurial teams and the correlation towards temporal concerns of the decision-making process. The study will investigate the overall decision-making strategies and processes of early-stage startups. The various team characteristics, which might influence the speed of the decision-making process will be identified and described. Furthermore, the usage of those characteristics for entrepreneurial teams will be discussed and the role of the aspects in the internal strategic decision making process will be illustrated. The influence of the entrepreneurial team on the way early-stage startup companies act in decision-making of course stands to main reason and will be clarified in this research paper. The aim is to develop a better understanding of the important issues of interest regarding to this research project and give the reader a better understanding of the general topic.

The research objective is to answer the research questions and fill the gap in literature regarding the influence of entrepreneurial team aspects on the speed of decision-making. As the focus will lie on the interviews as main data source, this master research paper aims to provide a solid insight of the decision-making process of entrepreneurial teams in general, but moreover shed light on the real influential parts of the process of making decisions and how to improve it.

1.3 Research Design

For the development of a possible answer to the underlying research question, literature research will be conducted in order to build up a solid and professional knowledge framework about the topic. It is projected to collect online research

documents of intranet and extranet websites, as well as offline sources like books or individual information sources of entrepreneurial teams or experienced startup founders. Since the underlying topic is relatively new and underdeveloped it may be difficult to find related scientific work. Therefore, also articles older than fifteen years could be considered using. Nevertheless, it will be tried to use recent literature only, which is not older than fifteen years. The retrieved information from the literature review will be used in order to develop a general theory about team-aspects and the speed of the decision making process in entrepreneurial teams. The theory will be enriched, validated and improved by the results of qualitative interviews. The development of the theory displays an inductive approach, since the general rule or theory will be developed through the analyses of qualitative interviews. The model generation from specific observations (Babbie, 2010) in form of interviews will then be used for scientific theory building (Muegge, Sharma & Kumar, 2005).

The data collection method used for validating the developed literature theory will mainly be of qualitative nature. Information will be collected by conducting and analyzing interviews and will be used for proving and for a possible revising the formed theoretical model (Babbie, 2010). This research paper aims to explain the underlying topic of entrepreneurial team characteristics with influence on decision-making speed in an explanatory way, rather than describing the studied phenomenon (Maxwell & Mittapalli, 2013). The planned interviews will be qualitative, which fits to the explorative nature of this type of research. It will be focused on entrepreneurial teams in early-stage startup companies. The understanding and interpretation of the observed phenomena in terms of meaning is the major attempt of qualitative research (Denzin & Lincoln, 2000). The chosen type of research is open enough to find the meanings behind the underlying actions of the entrepreneurial decision-making process in teams and the influence on speed of decision-making. After data collection, the interviews will be transcribed and coded manually, following the three basic steps: (1) open, (2) theoretical and (3) selective coding into different categories and linked to several sub-categories (Westen, Gandell, Beauchamp, McAlpine, Wiseman and Beauchamp, 2001; Basit, 2003; Van Aken et al, 2012).

1.4 Academic and Practical Relevance

This research paper provides contribution to various academic fields, as it aims to identify the influence of team characteristics in entrepreneurial context on the speed of decision-making. Scholars of the last decades have shown interesting insights of how entrepreneurs can become successful and how a team should be structured (Talaular, Grundei and Werder, 2005). Also the impact of speed of the decision-making process on the success of a company has been researched (Brown & Eisenhardt, 1988; Repping & Sterman, 2000). However, there is little insight on which specific entrepreneurial team aspects have an influence on the speed of decision-making. Due to the fact of rising globalization and market pressure, the outcome of this research is not only academically relevant, but also shows relevance on practical level. The understanding of the complex team system in the entrepreneurial field brings valuable information about function and success factors of early-stage teams and describes how decisions are made in modern entrepreneurship.

The findings of the underlying research can be valuable for different reasons. It provides a first step towards identifying the differences, which determine the success of entrepreneurs and the failure of some others. When entrepreneurs know about the crucial aspects in their teams which result into fasten up the decision making process, they can adjust this aspect in order to perform better and faster in internal processes and might cope better with uncertainties.

It can also be assumed that entrepreneurial teams can use the information about team aspects and speed of decision-making to other parts and processes of their company. If entrepreneurs know how to raise speed in the internal decision-making process, they could rather use this information for analytical tools, strategy development or speed up other internal processes. With fast and well working processes, entrepreneurs could focus on other creative or important issues. Regarding to Gruber (2007) it is of major importance for companies in highly dynamic environments, like entrepreneurship, to focus on planning and speed up the planning tasks. The personal goals of the entrepreneurs, characteristics and awareness of strategic issues have impact on the firm's development. For rapidly growing small high tech companies' strategy formulation is especially important, if not essential, for successful long-term

development (Berry, 1998). This points out that also the personal characteristics of each entrepreneur is closely linked to the company's strategy and thus the decision-making process in young and early stage startups. The development of the personal character also may benefit from the findings of this research.

2. THEORETICAL FRAMEWORK

This chapter describes the theory used in the underlying research paper and gives a general overview about the strategic decision-making process and entrepreneurial team characteristics. The various team characteristics, which might have influence on the speed of the decision-making process will be identified and described. Furthermore, the usage of those characteristics for entrepreneurial teams will be discussed and the role of the aspects in the internal strategic decision-making process will be illustrated. Also the speed of the decision-making process will be addressed and analyzed in this chapter. The influence of the entrepreneurial team on the way entrepreneurs act in decision-making of course stands to reason and will be clarified in this chapter. The main aim of the research paper is to develop a better understanding of the important issues of interest and give the reader a better understanding of the general topic.

2.1 Strategic Decision-Making

A primary purpose of this research project is to reveal the influence of certain team characteristics on strategic decision-making. In literature a strategic decision is characterized as a decision, which is important, infrequent and made by the top leader of the organization (Eisenhardt & Zbaracki, 1992). This strategic decision affects the organizational health and survival of the company (Mintzberg, Raisinghani and Theoret, 1976). In practice, strategic decisions are totally individual, depending on the company's actual situation. However, the making of good decisions stands in direct connection with the overall performance of any organization, independent of the current situation of the company (Harrison & Pelletier, 2001). Spoken for entrepreneurship, this fact might have even more influence on the survival of the company. Early-startups and young ventures stand under higher pressure for delivering results as fast as possible to survive on the market or attract investors for instance. The temporal context has higher value for early-stage entrepreneurs and teams, as they lack sufficient resources like time or money in the most cases (Ries, 2011; Croll & Yoskovitz, 2013).

In literature there can be found a more detailed definition of strategic decisions and successful strategic decisions (Harrison & Pelletier, 2001). A decision is strategic when:

(1) the decision connects and defines the organization to its external environment, (2) the decision needs to comprise the entire organization, (3) the decision coheres on input of all primary functional areas of the company, (4) the decision directly influences both, administrative and operational activities of the organization, and (5) the decision is of significant importance for the long-term development and survival of the entire company (Harrison & Pelletier, 2001). Following to Harrison & Pelletier (2001), a strategic decision is successful, when the output of the strategic decision does what it was intended to do, inclined with the underlying constraints. Harrison and Pelletier (2000) explain that it is critical to use a judgmental strategy rather than a computational strategy to make successful decisions. When using a judgmental strategy, decision makers choose based on subjective judgment from a set of given alternatives. The decision environment is uncertain and the given information is not perfect.

In existing literature, the process of strategic decision-making is seen differently by various researchers. Some researchers use an eight-step model (Li et al., 2008), others refer to a four-step model (Simon, 1997) or even a more elaborated cyclic process model (Harrison & Pelletier, 2000). However, most researchers agree on a first step, describing starting point in which a problem or need is identified (Li et al., 2008; Simon, 1997; Szulanski & Armin, 2001). Formulating the problem is already the first problem-solving step (Simon, 1997). That very *first step* can be time consuming and it might be difficult to identify a problem, but a solid problem definition is crucial to successful decision-making. The developed problem statement should be broad enough to accommodate many alternatives, but narrow enough to accommodate a manageable number of alternatives (Szulanski & Amin, 2001). The *second step* of the decision-making process is the search and development for possible alternatives and options (Harrison & Pelletier, 2000; Li et al., 2008; Szulanski & Amin, 2001; Simon, 1997). Compared to most other situations, alternatives in decision-making do not exist yet, but need to be created and designed (Simon, 1997). Especially entrepreneurial teams mostly compete in new, undeveloped business fields and environments. The likelihood of finding a suitable option is influenced by the number of alternatives and the variety between the generated alternatives (Szulanski & Amin, 2001). After the development of a set of possible alternatives, the different options need to be evaluated and analyzed. The choice with the highest probability of solving the initial problem will be selected (Harrison & Pelletier, 2000; Li et al., 2008; Szulanski & Amin, 2001). The *final step* is the

implementation of the selected alternative and monitoring and measuring of the progress (Harrison & Pelletier, 2000; Liet al., 2008). The above-mentioned steps build the foundation of the decision making process. Findings from the literature review will be added to develop a model (figure 1).

2.2 Decision-Making in Entrepreneurial Teams

Entrepreneurial teams are mainly responsible for many or even most of the successful major start-up companies in modern times (Kamm et. al., 1990). Entrepreneurial teams are at the heart of any new venture (Cooper and Daily, 1997). Several studies claimed, that companies, which were directly founded by entrepreneurial teams, are more likely to survive and willing to achieve faster growth than startups, started by individual entrepreneurs (Harper, 2008). For the purpose of this master thesis research paper, entrepreneurial teams will be defined by as "*a group of entrepreneurs with a common goal which can only be achieved by appropriate combination of individual actions*" (Bacharch, 2005).

In most ventures and early-stage entrepreneurial teams, the key decisions affecting the venture's ability to embrace present opportunity and survive over time are made by the team, not by an individual founder (West, 2007). For both, homogeneous and heterogeneous entrepreneurial teams, the focus for individual difference lies on the degree of knowledge, alertness and creativity (Venkataraman, 1997). Venkataraman (1997) further suggests that these differences strongly influence the discovery and exploitation of profit opportunities. The combination of individuals into an entrepreneurial team has influence in the decision-making process. Not only the quality of the decisions outcome, also the structure or communication of the decision making process seems to be major influenced by the team members (Venkataraman, 1997).

Existing literature suggest that the way entrepreneurs make strategic decisions is a different than well-established companies do. Some scholars highlighted that the decisions in entrepreneurial companies were made on cognitive basis rather than on rational basis (Ucbasaran, 2008; Vanharanta and Easton, 2010; and McVea, 2009). In contrast to the theory, other literature on entrepreneurship claim analytical, data driven information sources as rational decision-making tool (Ries, 2011; Croll &

Yoskovitz, 2013). Referring to Ries (2008) the way companies are build is changing. Fast decision-making in early-stage startup teams leads to a fast and more comprehensive understanding of the market situation (Croll & Yoskovitz, 2013).

Entrepreneurs apply a less rational, less comprehensive approach and follow a heuristic way of making decisions in which they rely on different information sources in different ways than non-entrepreneurs do (McVea, 2009). Ucbasaran (2008) supports this view and states that entrepreneurial decision-making is less rational and decisions are rather based on cognitive decision-making. Entrepreneurs favor intuitive and spontaneous decision making strategies, particularly in situations of high time pressure, ill-defined goals and dynamic environmental conditions (Vanharanta & Easton, 2010). That method of processing information with cognitive and affective elements leads into direct knowing without using conscious reasoning (Sinclair & Ashkanasy, 2005). Regarding to Eisenhardt and Zbaracki (1992) strategic decisions can be either rational or bounded rational. When using the rational decision making model, critical information about the decision will be gathered, a set of alternative actions will be developed and the optimal alternative action will be selected from the set of alternatives (Eisenhardt & Zbaracki, 1992). "*Strategic decision makers are rational in some ways, but not in others*" (Eisenhardt & Zbaracki, 1992, p. 22). When using a rational decision-making approach, the decisions are made quickly, but based on rather incomplete information. The set of alternatives is mostly quite extensive, but poorly analyzed (Eisenhardt & Zbaracki, 1992). The result is that decision-making often isn't completely rational, but rather bounded rational.

Entrepreneurial decision makers tend to content themselves quickly, neglect optimization and are seldom engaged in comprehensive research. The discovery of potential goals will be conducted during the process of alternative searching and not beforehand (Eisenhardt & Zbaracki, 1992). In computational strategies, decision makers believe to have comprehensive understanding of the topic and choose an alternative by picking the best possible option aligned with the objective (Harrisson & Pelletier, 2000, p. 109). Uncertainty about the decision outcome limits an extensive search for the best choice, however: "*strategic decision makers should accept their innate limitations and acknowledge the uncertainty inherent in strategic choices*" (Harrisson & Pelletier, 2000, p. 109).

As mentioned before, the team characteristics seem to have crucial influence on the decisions made, but also on the speed of the internal decision-making process. Entrepreneurial teams work different than most well established companies with designed processes. In result, the presence of diversity of idea and knowledge within entrepreneurial teams contributes towards team learning (Clarysse & Moray, 2004) and the startup's ability for additional resource acquisition necessary for the further growth (Brush, Greene & Hart, 2001; Hayton & Zahra, 2005). Also each member of the entrepreneurial team has a different behavior in his or her biases for external networking (Neergaard, 2005). The networks provide useful and new information about markets and customers, which increases the likelihood that the new venture will start up successfully (Grandi & Grimaldi, 2003).

Uncertainty of the decisions outcome refers to situations of imperfect availability of information, time and cost constraints and cognitive limitations (Harrison & Pelletier, 2000). In entrepreneurial context, strategic decision-making is suggested to of an entrepreneurial nature. Entrepreneurs differ significantly in decision-making compared to managers (Busenitz & Barney, 1997) or students (McVea, 2009). Following Mitchell et al. (2002), entrepreneurial decision-making refers and involves the way entrepreneurs use cognition to make assessments, judgments and decisions related to entrepreneurial activities such as opportunity evaluation, venture creation and growth. As entrepreneurial teams operate in a more dynamic business environment, the decision-making differs from traditional managers (Busenitz & Barney, 1997). In consequence of the environment of entrepreneurial teams, it is expected that entrepreneurs make decisions faster.

The entrepreneurial team as foundation of any startup works in a unique way. *The members of that emergent teams jointly discover and exploit opportunities that could not be unearthed by each operating alone in an independent venture* (Harper, 2008, p. 11). Following Harper (2008), the entrepreneurial team is a social group with an internal subdivision of entrepreneurial problem solving, which fosters a common goal. Each team member depends on one another to having the capacity of solving entrepreneurial problems by making the right decisions. This illustrates the way in which entrepreneurial team discovery can be a social result of joint conjecture and mutual

evaluation of creative ideas (Harper, 2008). Talaulicar, Grundei and Werder (2005) identified different team aspects which have influence in the decision-making process and other internal processes of early-stage ventures.

2.2.1 Team Size

The (1) *team size* of early-stage startup teams in the tech industry seems to have influence on the speed of internal processes. Other research found out, that the size and composition of the team is linked to the presence of the different types of knowledge that will help the new venture to succeed, and to the degree of integration of perspectives among the team members, which will lead to consistency of actions (Eisenhardt & Schoonhoven, 1990; Ucbasaran, Lockett, Wright, & Westhead, 2003). Early-stage startup teams mostly are small and only consist out of the founders and maybe some early employees. The entrepreneurial team, which is responsible for decision-making stands in direct contact and there are just "short paths" in such small teams.

2.2.2 Team Structure

The internal (2) *team structure*, in form of authority and the direct influence of the founders is unique in entrepreneurial tech teams. The level of authority is low in most startups and hierarchy tends to be rather flat. However, Harper (2008) argues that in entrepreneurial teams one individual will act like the lead entrepreneur. This could be the founder of the venture. The lead entrepreneur is usually followed by the sub entrepreneur(s). "*The lead entrepreneur is the person in whose mind all of the major elements of the opportunity come together*" (Shaver & Scott, 1991, p. 39). It depends on the venture of how powerful and hierarchical the lead entrepreneur acts. Regarding to the hierarchical design, it can be assumed, that a classical CEO model will decrease decision comprehensiveness and will imply a greater level of cognitive recourses in group decisions (Haleblian & Finkelstein 1993; Smith et al., 1994). In contrast, if there is a company with a top manager with a powerful position, he or she is likely to shape decisions individually (Talaulicar, Grundei, & Werder, 2005).

2.2.3 Internal Team Communication

(3) *The Communication* of entrepreneurial teams stands in direct focus of this research, as it differs from most well established companies. In literature the internal communication in entrepreneurial context is rather weak discussed. Harper (2008) states that entrepreneurial teams use more direct communication and communicate fast and rather uncomplicated. Even important decisions are made under usage of informal communication tools, which is more valuable than a formal information structure (Harper, 2008). The communication process in entrepreneurial teams isn't as complex as in huge well-established companies. The team is smaller and direct information exchange is more likely to happen than in big concerns (Ries, 2008; Croll & Yoskovitz, 2013). When debating for example, the existing knowledge is used directly and effectively for the preparation of the strategic decision.

As a result, the decision comprehensiveness can be expected to be higher (Talaular, Grundei, & Werder, 2005). The usage of unconventional and uncomplicated information sharing and communication channels can have an influence on the speed of decision-making and will be discovered in this research.

2.2.4 Team Environment

The direct (4) *environment* of entrepreneurial teams has major influence on the company. It has been considered as one of the critical contingencies in organizations theory and strategic management (Child, 1972) and can be differentiated between two connectional environment necessities: (1) environment as information source, and (2) environment as stock of resources (Aldrich & Mindlin, 1978). For entrepreneurial teams, the environment can be divided into two major forms: (1) geographical environment and (2) competitive environment.

Both environments can influence entrepreneurial teams in positive or negative ways. Geographical environments can become a positive push factor, combined with comparatively and social networking importance (Korunka, Frank, Lueger & Mugler, 2003). As the creation of a new venture is a complex and dynamic process, the personal environmental interactions influence the creation and refinement of the business idea (Korunka, Frank, Lueger & Mugler, 2003). In competitive environments, companies

need to face competitive aggressiveness and entrepreneurial teams need to react with proactiveness (Lumpkin & Dess, 2001). Proactiveness in decision-making refers to taking the initiative, which recreates an environment to one's competitive advantage (Chen & Hambrick, 1995).

2.2.5 Team Trust

Finally, (5) *trust* in entrepreneurial teams represents a powerful team aspect. Startup teams mostly were found out of friendships or personal networks and internal joint actions like sport or other common activities form the team in a special way. Friendship ties between team members contribute to smoothly implementing a CEO model as used in startups and entrepreneurial teams (Grundeis & Talaulicar, 2002). Regarding to Dirks and Ferrin (2001), trust has been shown to have beneficial effects for organizations in general and particular on top management teams (Simons & Peterson, 2000).

In a climate of internal trust, the CEO is more likely to ask for and take into account the other team members and their knowledge instead of relying on his or her personal information only, when making decisions (Harper, 2008). Also relevant information is not withheld, when team members have a high level of trust (Harper, 2008). Following Harper (2008), this results in higher overall performance and higher decision comprehensiveness. In large companies, certainly these preconditions will be less likely than in entrepreneurial teams and early-stage startups, founded by a group with strong social relation (Baron, 1999; Baron & Markman, 2000).

The question is how the individual team members and team influencing characteristics and aspects stand in connection with the speed of decision-making. Strategic decisions of entrepreneurial teams and early-stage startups represent the companies' internal strength. Well deliberated and of high quality, the strategic decisions require a certain speed, which is very important, as only timely decisions can lead to competitive advantages (Talaulicar, Grundeis & Werder, 2005).

2.3 Speed of the Decision-Making Process

Scholars have long considered the speed of different organizational processes (Perlow, Okhuysen, Repenning, 2002). Beginning with Taylor's (1911) *Principles of Scientific Management*, the focus on speed has been established in scientific management, as well as in scholar analysis (Brown & Eisenhardt, 1988; Repenning & Sterman, 2000). In the concept of lean startup and lean analytics, the speed of decisions plays a central role (Ries, 2008; Croll & Yoskovitz, 2013). Fast decisions lead into fast collection of data, fast and lean adjustments of the business model and fast answers to the unknown (Ries, 2008; Croll & Yoskovitz, 2013). For this master thesis *speed* of the strategic decision-making process will be defined by the researcher as strategic decisions, that are made in a time frame of 1-3 days. As there is only little scientific work about the influence of team characteristics on the speed of decision-making available, this research project aims to close the gap in literature.

Speed and comprehensiveness are especially important for startups (Shane & Venkatraman, 2000), and lead to higher company performance in high velocity environments (Talaular, Grundei & Werder, 2005). Internet firms with digital business models change so fast, that there is no time for building complex companies or business models over years, betting for success. Chatfield (2008) described the decision-making that leads entrepreneurs to form new ventures as the most important decision-making in the life of the firm.

In existing literature, the speed of decision-making is treated with disunited views. Some researchers consider fast decision-making as it may improve the competitive performance across the company's environment. Firms adopt successful new products or improved business models, that provide competitive advantage earlier (Jones, Lanctot, and Teegen, 2000) and adoption efficiency-gaining process technologies even in established industries faster (Baum, 2000). Decision-making speed thus may increase the firm's dynamic and not-dynamic environments to exploit opportunities before they disappear (Stevenson and Gumpert, 1985). On the other hand, fast decision-making can result into bad quality of decisions. The gathering of comprehensive information is sacrificed to gain speed (Kahneman et al., 1982). Scholars showing

diverse meanings about the impact of fast decision-making. The lack of sophisticated knowledge in the field of interest confirms the need for further in-depths research.

2.4 Model Conceptualization

For a better and more comprehensive understanding of the influence of entrepreneurial team aspects, the findings from the literature review will form a conceptual model. In this chapter the model will be developed and used as theoretical basis for qualitative information sourcing by interviews. The decision-making process outlined above, will be defined by the first three steps and builds the foundation of the model (Harrison & Pelletier, 2000; Li et al., 2008; Szulanski & Amin, 2001). As the Implementation and execution of the selected decision are not part of the actual decision-making process, it will be excluded.

The model combines the elements of the decision-making process with the theoretical findings about team characteristics in entrepreneurial teams (Talaular, Grundei and Werder, 2005). These team characteristics are (1) team *size*, (2) team *structure*, (3) team *communication*, (4) team *environment* and (5) team *trust*. As the research focuses on the speed of strategic decision-making, the model includes the temporal aspect of time in the decision-making process.

The included categories of team characteristics will form five individual propositions, which will be tested after conducting the interviews:

2.4.1 Proposition 1: With regards to team size, a small size of the team has positive influence on the speed of making decisions.

Entrepreneurial teams are mostly smaller than normal companies. It will be assumed, that the size of the teams helps the team member to get in touch with others faster than in big organizations, which has influence on the decision-making speed. If the team is small, it certainly is quite new and thus under high pressure of time. The need for speed in this environment is especially high for early-stage entrepreneurial teams. The direct exchange of information, planning and other recourses and the different attitudes towards working effectively and efficient, can influence the speed of decision-making. Short paths in a small team can also result into faster actions and faster processes.

2.4.2 Proposition 2: When the internal team structure is open and personal, the process of decision-making is faster.

A low level of hierarchy favors the sharing of information and knowledge and can result into more comprehensive and faster decision-making. Personal structure of the team, helps to improve cognitive recourse sharing and in-group problem-solving, which could lead to faster decision making as it is more efficient than under complex business structures. In comparison to large organizations, entrepreneurial teams have no complex divisions. The founder's influence through power and leadership will also be assumed as driver for faster decision-making processes. Under a low level of authority, entrepreneurial teams create uncomplicated and unusual processes, which fit the best to the underlying situation very fast.

2.4.3 Proposition 3: Under informal and personal communication the startup teams can make faster decisions and speed up the entire process of decision-making.

In most entrepreneurial teams, the communication channels are rather informal (Ries, 2011). This enables the team members to communicate directly and fast. As the communication is not that complex than in well-established companies, even major decisions can be made by short emails or fast personal meetings. Fast and easy information sharing and a higher degree of social communication will lead to more speed in decision making of entrepreneurial teams.

2.4.4 Proposition 4: The environment of the early-stage startup teams lead into faster decision-making.

Under high pressure and competitive environments, entrepreneurial teams need to be fast to stay competitive in the future. This counts for all internal processes, including the decision-making process. Pro-activeness and positive influence from a pushing geographical environment, network effects and the creative spirit of the direct environment can also have influence on the temporal aspects of decision making. It will be assumed that booming startup cities like Berlin have positive effects and offer a kind of *spirit* to entrepreneurial teams.

2.4.5 Proposition 5: The internal trust inside the teams enables a faster internal decision-making process in startups.

Trust in entrepreneurial teams builds the foundation for a positive internal atmosphere. In this trustful climate, problems will be discussed more open and without holding back important information. This open attitude affects the speed of decision-making as it makes the process faster. Friendships among team members further strengthen the team and should result into uncomplicated decision-making.

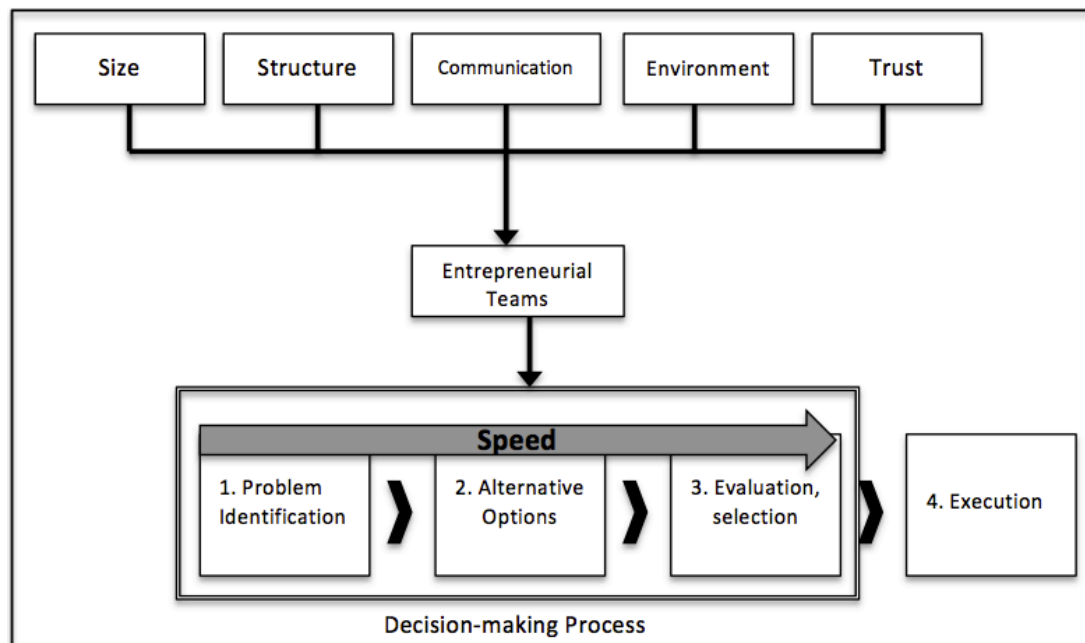


Figure 1: Model

3. METHODOLOGY

In this chapter the methodology, which is used in the master thesis research project, will be outlined in further detail. In addition to the theoretical foundation derived from literature and the theoretical model developed in this project, interviews with early-stage startup team members will be used to gain practical in-depth insight.

3.1 Data collection

3.1.1 Interviews

As main source of qualitative data collection, interviews with entrepreneurs of early-stage startup teams will be conducted. To receive as much input as possible, the interviews will be semi-structured. Semi-structured interviews will be used, because "semi-structured interviews provide practitioners with opportunities to develop a rapport with members of the organization and learn about critical areas that are not readily accessed through standardized questionnaires" (Brinkman & Rog, 2009, p. 336). This allows to ask a set of predefined questions and fill them up with more questions if the situation in the interviews requires it. In order to compare and analyze the answers properly, the basic set of questions will be the same for each entrepreneur interviewed. The interview questionnaire aims to reflect the key topics and prepositions defined by the literature review.

After conducting the interviews, coding will be used to analyze the given answers. Regarding to Brinkman and Rog (2009), the purpose of coding in quantitative research is to fracture the underlying data and rearrange it into categories that facilitate comparison between observations and information of the same category and between categories. That kind of categorizing makes it easier to develop general understanding of the given topic and compare different answers (Brinkmann & Rog, 2009).

3.1.2 Sampling

The sampling process and method used for selecting suitable early-stage startup teams for this research project is convenience sampling. The geographical focus of the

convenience sampling would be the city of Berlin in Germany. As Germany's leading startup city, Berlin is ideal for collecting data and information about startup teams and entrepreneurial research. In order to collect valuable information, the teams will be chosen from a governmental funded tech-accelerator program. Only teams with strong technical background and technical innovation will be accepted to enter the program. Beforehand, all startup teams need to apply with an extensive application. The factor *team* is one of three main components which needs to be of very high quality in order to get the place in the accelerator. The time in the program is limited to 12 months per team. This sampling situation helps to secure a certain quality of the teams and startups, as they are selected and are in a comparable situation in terms of time and financial status. Furthermore, the researcher had the opportunity to collect information of the insights of the accelerator program, as he worked as an interim for 3 months in one of the teams. This enabled the researcher to make use of participant observation.

Convenience sampling is known as a non-probability sampling method. The method can be used for data collection in applied research projects, which would be too costly or too difficult to use probability sampling methods for (Brinkman & Rog, 2009). The method of non-probability sampling includes that the interview subjects are not selected randomly. For constraints in time and resources, the data will be gathered by qualitative nature with usage of semi-structures interviews. It would be too time consuming to conduct a probability sampling method, as not every randomly chosen interviewee would have time and effort of answering an in-depth interview questionnaire spontaneously. Though the overall generalizability is limited.

However, according to Denzin and Lincon (2000), the main analyst's tasks in qualitative research „is to understand how this instance and its intersections work, to show what rules of interpretation are operating, to map and illuminate the structure of the interpretive event itself" (Denzin & Lincon, 2000, p. 371). The occurrence of the same expression is irrelevant, also the sampling from one population is not important, because it cannot be predicted before there is no pre-indication what evidence might be found (Denzin & Lincon, 2000). This, in turn means that the concern about empirical generalizability is very small – the goal of the research project is not empirical generalizability, but rather to prove a theory which is uniquely adequate for the underlying situation (Denzin & Lincon, 2000). For a generalizable theory, further

research should be conducted. Empirical tests of the theory exceed the scope of this research project.

3.1.3 Selecting Process and Strategy

The focus of this research project lies on early-stage startups and the teams behind these startups. To deliver the necessary accuracy in results and in scientific relevance, the selecting process follows three main factors. The early-stage startup teams will be chosen after these three factors.

1. Early-stage startup team (members)

Especially early-stage startups stand under enormous pressure of time and money. It will be kept in mind that serial entrepreneurs, or spinoff startup projects fall not into the group of interest of this research project, as they mostly do not lack money and time that desperate, as first or second time founders do with their startups. Also the level of experience has influence on the speed of decision making. High-tech founders usually do not have an intense amount of experience in the field of entrepreneurship, because they are developing something new by definition. First time entrepreneurs focus more on the newness and innovativeness (Baron & Enseley, 2006). In the early-stage teams, strategic decisions usually have higher influence on the near future and occur in a higher frequency than in established ventures. Following Felin & Zenger (2009), entrepreneurial actions can be seen as team effort. When a team is align, the members tend to think in a similar way (Felin & Zenger, 2009). Nevertheless, in this project, the entrepreneurial actions will be treated as solo actions. The teams will be interviewed one-on-one to avoid losing information and opinions of personal team members.

2. Executing power by the team

Another crucial aspect is that the executing power about the company should lie in the actual team. The team itself should be in full control over the company and all strategic decisions. In startups with many investors, the founders often get replaced against well experienced managers or have nearly no executive control about strategic decisions. Founders that share their risk with investors or act like founders but are commonly employed at some incubator company or venture capital fund (often called: founder in residence), do not have the same personal pressure on strategic decision making. The

nature of an entrepreneur demands that entrepreneurs must often make quick decisions with incomplete information (Tan, 2001). This research strives to find teams and entrepreneurs with real executive power.

3. Operating in a high-tech environment

Regarding to Moriarty and Kosnik (1989), high-tech means that there is a high uncertainty about the market. To hit the research target and goal correctly, it will be also ensured to interview only early-stage startups teams operating in the high-tech environment. Especially the degree of uncertainty and complexity is significantly higher in high-tech startups than in young local businesses. A company is high-tech, when it has a strong scientific-technical base and has been set up for the purpose of exploiting an invention or technological innovation (Berry, 1998). The term high-tech consists out of two words, high and tech. Following to Moriarty and Kosnik (1989), technology itself consists of practical knowledge, know how, skills and artifacts. This means that high-tech firms and startups are companies with strong scientific-technological foundation, with the goal of exploiting and innovating, aiming for inventions and technical innovations. They usually operate in a very uncertain, high risk market environment.

However, the degree of complexity and uncertainty varies depending on the industry in which the SME operates (Vermeulen & Cursue, 2010), which makes it unnecessary to analyze all industries, as long as the teams meet the above mentioned criteria. In high-tech businesses especially the role of the entrepreneurs' personal characteristics is significant, the strategic planning crucial (Berry, 1998). Summarized, it can be identified three main factors influencing the selecting process of this research project. Under considering of this factors, it can be ensured to usable data and to find practical information about the theoretical framework underlying this project. The three factors for the selection process are:

1. Early-stage startup team (members)
2. Executing power by the team
3. Operating in a high-tech environment

3.2 Operationalization

This master thesis research project focusses on the influence of team related characteristics on the speed of strategic decision making in early-stage startups. The goal is to investigate if the build model and information found in literature holds in practice and to find out what team factors affect the speed of decision-making in which way. The semi-structured interviews, which were discussed in the previous sections, took about 20-45 minutes and were held with 12 interviewees of five different startup teams from a governmental funded accelerator program. As the interviews covered mainly German speaking startup teams, the interview questions were asked in German. The complete questionnaire in English and German can be found in the Appendix, p. 54.

The interview covered all five main team characteristics of the formulated model. Also, the interview aimed to stress the prepositions with in-depth questions about the specific field of interest of each preposition. In total, 12 interviews were held. The detailed list of participants gives an overview about the team members, gender, age and sector operating in. 17% of the interviewees were woman and 83% men. All interviewees where founders of entrepreneurs, no employees where interviewed.

Interviewee	Disciplinary Field	Age	Gender
1	Logistics	25	male
2	Production Technologies	34	male
3	Production Technologies	25	male
4	Biotechnology	27	female
5	Biotechnology	28	female
6	App Development	29	male
7	App Development	25	male
8	App Development	23	male
9	Smart Home	26	male
10	Smart Home	32	male
11	Smart Home	22	male
12	Smart Home	24	male

Table 1: Overviews Interviewees

The interviews were recorded, transcribed and coded manually following three basic coding methods: (1) theoretical coding, (2) open coding and (3) selective coding. Codes were divided into different categories with direct link to several sub-categories (Weston, Gandell, Beauchamp, McAlpin, Wiseman and Beauchamp, 2001; Basit, 2003; Van Aken et al. 2012). The Category development was done by using the model, representing the theory found in literature, the prepositions and self-developed categories representing findings and insight found during the interviews. The codes *quality*, *hierarchy*, *friendship* and *network*, where selected during the interviews process, as they turned out to be of high importance. That method allows to compare the findings made in this research projects and find specific answers on the research questions. The following categories were made:

Main Categories	Sub-Categories
Team Factors (theoretical coding)	Size
	Structure
	Communication
	Environment
	Trust
Proposition	Proposition 1: <i>With regards to team size, a small size of the team has positive influence on the speed of making decisions.</i>
	Proposition 2: <i>When the internal team structure open and personal, the process of decision-making is faster.</i>
	Proposition 3: <i>Under informal and personal communication the startup teams can be make faster decisions and speed up the entire process of decision-making.</i>
	Proposition 4: <i>The environment of the early-stage startup teams will lead into faster decision-making.</i>
	Proposition 5: <i>The internal trust inside the teams enables a faster internal decision-making process in the startups.</i>
Important Issues (open coding)	Quality
	Hierarchy
	Friendship
	Network

Table 2: Overview Coding

Additionally, the researchers observing role gave more insight in the processes of strategic decision-making. Due to an internship at one of the interviewed startup teams, it was further possible to gather more insight knowledge off all team in the incubator. During this internship, it was possible for the researcher to attend real strategic decision-making meetings.

After transcribed, the interview transcribes were analyzed using the developed code set, explained above. The main focus was on the propositions about the influence of team characteristics on the speed of strategic decision-making. When found evidence about the five propositions in the transcribes, the concerning text was marked and after analyzing it was assigned to a specific code. Also if the codes were not literally mentioned, but rather indirect indicated, the code was also assigned.

3.2.1 Additional Case Illustration

For better understanding of the operating field of the interviewed teams, the background of the selected teams and the selecting strategy, a brief additional illustration will be given. The German governmental funded program is called EXIST and supports innovative, tech-oriented early-stage startup teams in Germany. The startup teams from the interviews are active in different fields. One team for example is active in the field of biotechnology in food production and develops an innovative technique to capture food ingredients, vitamins and nutrients in a natural gel capsule. The other teams are developing a smart-home device for household appliances, an innovative baking technique, and a mobile application for motorbikes including safety features using smartphone sensors, which send an automatic alarm when the driver has an accident. Despite to the apparent differences of the early-stage teams, the circumstances and team situations are quite comparable. That is why no additional strategy for the case selection was needed. The teams are all in an early-stage and high-tech oriented. The comparability is given, due to the comprehensive application process of the funding program. Also, all teams have the same possibilities. The program takes 12 months for each team, includes free office space for the teams, money for the personal living of each team member and a budget for project-related expenses.

For the case study, only strategic decisions were analyzed. The teams had to deal with similar challenges and topics, as they were in similar situations and had the same amount of recourses in form of time and money to use for their projects, as the funding was equal to all teams. The decisions which stood in main focus of the research, had impact on the entire project were of high importance to the teams.

Summarized, the selection from this program allows the researcher a comparable, high quality and real-life insight of early-stage startup teams with a high amount of comparability despite the fact that the teams operate in many different industries.

4. FINDINGS AND RESULTS

In this chapter, the key experimental findings revealed from the interviews and discussions with the entrepreneurs and teams will be presented. It will be aimed to present the most important results and if or why they might be of significance for answering the research question of this master thesis research paper.

4.1 General findings

The interviews revealed and confirmed the general assumptions about the importance of team factors on the decision-making process and the connection towards speed of decision-making.

"Of course we can see a clear connection between the team and the decision-making process. Especially when the team is in a well internal condition, decisions work way better compared to situations with internal problems in the team."

CTO & Founder (Smart Home Technology)

A well working team and internal structure of the company is the most important aspect for us. Only with a perfectly working team we can reach our goals. We can see this also for strategic decision-making. (...) The onboarding process of new team members in the management teams is one of the most important tasks."

CEO & Founder (Logistics Technology)

In the beginning of the interview phase, it was noticed that the introduction to the model with all five team factors was influencing the initial thinking and the given answers of the interviewees. The very first interviews were seen as test interviews. After that, the model introduction was split up into two parts: first the general model explanation, then, in the second part, the full model with all team factors was explained to the interviewees. This made it easier to receive unbiased findings and answers.

4.1.1 Team Characteristics

It was rather outstanding, that the entrepreneurs were not considering all given team characteristics as equally important and focused on a few critical factors. Again, the

differences in importance of certain team factors and the influence on the speed of decision-making, were related to the general attitude, situation and industry the team was operating in. However, 92 percent of the entrepreneurs stated that communication was the most important team factor. On the question *"How is informal and personal communication of the team members influencing the decision- making process and the speed of the decision- making process in your team?"* one interviewee answered:

"That is exactly the crunch point why we are so fast in decision making. We are communicating all the time and we are standing in direct exchange all time. This way it works extreme fast!" **CEO & Cofounder** (App development)

Also trust and size were named when asked for the most important team factor which has influence on the process and the speed of decision-making.

Trust is a really important thing. For us it is also more important, because our families are pretty close attached to our business (...) my cofounder and I are close friends. Next to this size is very important. We try to only have 4 active people in the decision-making team. Larger groups would limit the speed and quality of decisions; we tested that.
CMO & Co-Founder (Biotechnology)

Additional team related elements which were often named by the interviewees and so seemed to have an impact on the speed of decision-making were the personal network and the degree of hierarchy. For hierarchy the answers where divergent, 66% of the team members stated that hierarchy can push the speed of the decision-making but only 25% expressed a clearly positive attitude towards high hierarchy. On the other hand, 50% of the entrepreneurs were positive towards a low level of hierarchy with a flat hierarchical structure within the team.

The findings also revealed a clear conformity and strong equality of meaning and views of the separate startup teams. Except for one team the meanings where notable in line and internal structures seemed to be internal consistent.

4.1.2 Quality versus Speed of decision-making

Although, the main topic of the research was the speed of the strategic decision-making process, the quality of the actual decisions stood in focus of the answers. All

interviewees exposed a positive perception about overall importance of the decision-making process in their teams. It could be revealed that all interviewees were aware about the temporal aspects of decision making and the significance of decision-making in general.

"Taken all resources into account, time and money are the rarest resources for us as young startup company. So you can imagine that we aim for very fast decisions in all parts of the company. We apply the 80-20 rule, which means 20% of input delivers 80% of the most important output. That speeds the processes up. Perfectionism can be done later."

CEO (Logistics)

In the further process of the interview, 70% of the entrepreneurs also showed disparate thinking about the importance of speed versus quality of decisions-making. Quality of the decisions was mentioned as more important than just fast decisions.

"(...) but fast decision-making does not mean high quality decisions."

CEO & Founder (Smart Home Technology)

"Of course there are certain factors, which can speed up the decision making process, for instance hierarchy, but the most essential influential factor is, that the quality of the decision is affected by the need for speed."

CFO & Founder (Smart Home Technology)

The findings showed that the importance of speed of strategic decision-making depends on the industry and current circumstances of the team. Some teams were signaling strong need for fast decision-making.

"(...) we are operating in a field, where flexibility and agility is necessary. This is only possible, if we decide very fast and execute even faster. So our team is so fast in decision-making, because we want it, but on the other hand, we need to be fast."

CEO & Founder (App development)

Startup teams which just recently entered the accelerator or received seed finance in the early past, reacted more relaxed and confident on temporal aspects, while other

teams, which had unclear financial prospective, due to unsecure further funding, were under much higher time pressure.

"Speed in general is very important to stay competitive. For our team, we are safe for the moment, because we have 11 months left here in the accelerator and no panic for money. Before that we had very high pressure for fast decision making, simply because we had no time. All of us had part-time jobs to survive and create time to work on the project."

CTO & Founder (Smart Home Technologies)

Other teams were considering fast decision-making as less important due to the nature of their business model or given "natural" boundaries. However, no interviewee showed clear need for slow decision making.

"In the food branch, we have to many external factors, which are influencing the time. We can decide as fast as anyway possible, but still we need to wait for legal stuff of the food law or authorizations."

Founder (Food Technologies)

4.2 Propositions

4.2.1 Proposition 1: *With regards to team size, a small size of the team has positive influence on the speed of making decisions.*

After conducting and analyzing the in-depth interviews and discussions with the teams and team members, it could be found out, that all entrepreneurs identified the size of their inner decision-making team as important influencing component regarding decision making in general. Eleven out of twelve interviewees directly stated that a small team results into faster decision-making.

The findings showed that especially the fact of not too many different personal meanings in small teams could have positive influence on the speed. The majority of entrepreneurs mentioned the preparation of decision relevant information by the person of authority before coming together to actually make the decision as highly important. 70% of the interviewees communicated that the perfect team *size* will be as small as possible and around 2-4 members. With regards towards quality and speed of the decisions, it was found, that the quality might not always be the highest, when the team is very small and very fast in deciding. Due to the lack of sufficient business knowledge and experience, most of the early-stage startups interviewed mentioned to make a lot of bad decisions. Because of the fact, that they turn so fast, the bad decisions are replaced quickly by the next, maybe better decision. The spirit and mindset of most interviewees claimed exactly the above mentioned small and fast cycles as very important in entrepreneurial decision-making. In larger decision-making teams, more people think about the possible decision alternatives and with more discussion, it was mentioned, that the decisions mostly will be of higher quality, but would take two or three times the time as if the decision-making team was smaller.

Another noticeable finding described the link towards *communication* in small teams: As all teams of the research were located in one room each, most of them even at one large desk, the communication was straightforward, very fast and continuously active. Most decisions in the teams, even strategic ones, were made on besides, using very easy and informal communication. Regarding to the team members, *"this would not be possible, if the team was 8-10 people large"* (CEO App Development).

Due to limitations in time and recourses, it could not have been researched, how fast this approach would be, compared to a decision of a larger team, which takes initially longer, but will last longer as it might have higher quality. Summarized, the findings revealed that small decision-making teams make faster decisions, which not means the decisions are of very high quality.

4.2.2 Proposition 2: *When the internal team structure is open and personal, the process of decision-making is faster.*

A flat and rather open internal *structure* was not seen as strong influential factor with regards to the speed of the decision-making process. Only half (six) if the team members mentioned that a non-hierarchical structure has influence on the speed of decision making. However, this kind of internal structure seems to have influence on the motivation and internal team atmosphere, as it was mentioned frequently by the interviewees.

It could be found out that a strict and hierarchical team structure had way more influence on the speed of decision-making. 75% of the Entrepreneurs stated, that clear hierarchy and authority last into very fast decision-making, purely, because there is one person who is the only decision-maker. Furthermore, it was said, that the quality of such decisions, made under hierarchy and authority is mostly of very poor quality, because of the missing discussion. The findings show, that when talking about a certain decision with a team of 2-4 people, the quality is at a very high level and also the speed is very high. In sum it could be revealed that flat structure is not always the best way towards accomplishing fast decision making. In combination with self-organized team members, who have their own independent working rhythm it might work. The majority of entrepreneurs mentioned that for most other work and employees, this would not work, as they require a clear structure.

"Openness results into trust and freedom, which motivates people, but some people need clear structure, not possible for all processes."

CMO & Founder (App Development)

4.2.3 Proposition 3: *Under informal and personal communication the startup teams can make faster decisions and speed up the entire process of decision-making.*

The research revealed a strong relation between trust and communication in the interviewed early-stage startup teams. The team characteristic *communication* turned out to be the most important team related factor regarding the speed of decision-making for about 92 percent the interviewed entrepreneurs. The findings show, that a clear and direct communication, results into faster and high quality decision-making. Unconventional business communication via Whatsapp, Google hangout, short and informal emails or personal chat, was mentioned as very important for speedy decision-making and in general.

"I would say, that it speeds up the decision making for sure. If you have less or no formal standards and you can use whatsapp to easily chat and talk about things. There is no need to wait until the next week meeting to discuss the issues. (...) the information flow is way faster and consequently the decisions will be made faster."

CTO & Co-Founder (App Development)

Also the team characteristic *trust* was named in direct context with communication. Teams with a higher level of trust, showed higher internal alignment and said that trust would open up the communication. The potential positive outcomes of that would be no fear for communication of bad information and the support of direct honesty.

"Because we trust each other on a very high level, nobody has fear of their boss or fear for indication for important issues or discussion about maybe negative, but important things."

CMO & Co-Founder (Food Technologies)

All together the findings confirmed the initial theoretical based thinking that informal and personal communication has major influence on fast decision-making.

4.2.4 Proposition 4: *The environment of the early-stage startup teams will lead into faster decision-making.*

The findings about the positive influence of supportive and professional *environment* of the teams and early-stage startups on fast decision-making showed negative tendency.

Only 25% of the entrepreneurs symbolized their opinion on the influence of the environment on speed of the decision-making process. What was very remarkable, is the fact, that the entrepreneurs however showed positive relationship of the environment towards the quality of the decisions made.

It absolutely has an enormous influence on the quality of the decisions. The environment leads into higher quality. With regards towards the speed of decision-making, yes, it can go in both ways (...) when consulting our mentor or professor, it will be clear what is important very fast. This, of course speeds up the decision-making process.

Or the direct opposite: If you have thought about possible alternatives of an upcoming decision, you will get even more alternatives, when asking your environment for help. This certainly results into a slower process. But the quality in both ways will definitely higher.

CEO & Founder (App Development)

According to the findings, the environment was seen as rather neutral with view on the influence on the speed of decision-making. Family, friends and Network as main environmental influence were seen as quality enriching but also time consuming, simply because the entrepreneurs have different options and more discussions about the decision alternatives. Competition, on the other hand, as environmental factor for the entire business, was perceived as mostly speed intensifying. However, the quality of the decisions in these cases was described as poorer. Especially the influence of the Network seemed to have major influence on the quality for the most interviewees.

4.2.5 Proposition 5: *The internal trust inside the teams enables a faster internal decision-making process in the startups.*

The last team related factor of the theoretical model was *trust*. The findings pointed out the importance of trust for fast and qualitative high decision-making. 11 out of 12 entrepreneurs repeatedly gave evidence that trust is the general foundation for the founding of any company or inter-personal relation. Particularly the connection of trust and communication stood in focus of nearly every interview taken for this research project. Trust enabled the founders to apply unlimited honesty and made it unnecessary to have fear or negative thoughts, when doing or communicating certain

things. The findings showed, that this fact saves time and thus trust results into faster decision-making.

In my opinion, trust is very important. Trust is so relevant, because if I would not trust on my co-founders, we would spend more time in discussion and control. With trust in the team, we set up the frame for that and the rest is done by the people of their own departure or field of responsibility.

CTO & Co-Founder (App Development)

To better distinguish between the degree of trust on an interpersonal level, the entrepreneurs were asked about the importance of friendship with regards toward the speed of decision-making. The results showed an obvious view of the interviewees on this topic. None of the asked team members claimed friendship as important for fast decision-making. However, all team members said, that a friendly contact in the startup is very important. To intense mixture of professional and private life whereas would last into a biased personal opinion. With regards on the aspect of time it was mentioned that it also would take longer, as the potential for extensive discussion would be higher.

4.3 Observation

As mentioned beforehand, the researcher had the opportunity to gather further insight knowledge by observation during an internship in one of the startups teams. The researcher was part of the *Smart Home Technologies* startup from month three until month six of the funding time in the accelerator program. The additional findings will be presented in the following section. The observations stand in line with the findings revealed in the interviews. Smaller teams and teams with a high amount of trust and clear and open communication were significantly faster in making decisions and seemed to reach the set goals faster. The quality of the decisions was also higher in these teams.

With view on the internal structure, the first main observation revealed major differences in speed and quality of decision-making of the different teams. The team with the highest amount of hierarchy, embodied by the founder was faster in decision-making, but showed very poor quality. The other extreme was a team, which had no

clear leader. The founder wanted to share responsibility and leadership, as he was a bad leader himself. This team made noticeable strange decisions with no clear focus. This very special team performed the worse out of all teams in term of business success. In the *Smart Home* team, the founder was the clear leader and performed a medium level of hierarchy expressed by charisma rather by authority. This trait resulted in faster, high quality decisions and supported the motivation among the team members.

The second main observation showed the significance of the personal and professional network of the team and its team members. In the first week as intern, the team had to make a major decision about a very important legal problem concerning the main insurance of the new service they were going to offer. In the concerning meeting, two members activated their network and made spontaneous phone calls to contacts, that could may help. In a remarkable time, their network connected them to a lawyer and to an insurance broker. The gathered information was not only very valuable, but also free and very fast. The decision about the legal problem was made in that meeting. This observation illustrates the power and importance of the personal and professional network and the influence on the decision-making process.

5. CONCLUSION

This chapter will review and discuss the findings made in this research project in the context of the literature and the existing knowledge about the underlying subject. The research questions will be answered and the understanding about implications of the research for policy and practice, as well as the limitations of the research project will be demonstrated.

5.1 General Conclusion

The goal of this master thesis research project was to explore the relationship between team-related characteristics and the speed of decision-making in early-stage startup teams. The main research question of this research was formulated as follows:

"How are entrepreneurial team-characteristics influencing the speed of the decision-making process in early stage startups?"

The knowledge from literature and qualitative research revealed that entrepreneurial team-characteristics have major influence on the temporal aspects of the decision-making process in early-stage startups. The situation of early-stage startup teams is quite unique, as early-stage entrepreneurial teams show lack of the important key recourses time and money in higher intensity than well-developed companies do. Especially very young and undeveloped high-tech startups stand under massive time pressure, show a high level of uncertainty and strong need for strategic decision-making (Chia, 1996). Due to this special situation, some team-characteristics seem to be of higher importance on temporal aspects of decision-making than others.

Communication, trust and *team size* have the highest influence on the speed of decision-making in early-stage startup teams. The interaction of the team characteristics leads to decisions with higher quality and higher overall speed of the decision-making process, as all sub-processes run smoother. However, early-stage startup teams which purely aim to reach high-speed of their decision-making process rather can make use of very hierarchical *structures*. The less people involved in the actual decision-making process, the faster the decision-making process.

5.1.1 Team factors

The team characteristics *communication*, *trust* and *team size* stand to special reason of in research project. The combination of trust and communication results in faster and more honest sharing of decision relevant information inside the teams. Trust towards team members in leading business functions avoids the fear of negative consequences by delivering bad information and enlarges the honesty and directness of constant and direct information exchange. The team size builds the last part of the triangle between communication, trust and size. All three factors are positively influenced by each other. The findings illustrate an optimal team size to be around between 2 and 4 people. The team size has significant influence on the speed of the decision-making process. In small teams, the time for discussions can be kept under control more efficiently. Nevertheless, the quantity of present opinions and meanings is still large enough to avoid poor analysis of the underlying topic or simply overseeing important, decision relevant details.

5.1.2 Quality versus Speed of the Decision-Making Process

Fast decision-making is not always guarantee for good decision-making. Entrepreneurial teams with little or no experience in business development and other business fields force the dilemma of either deliver fast or good decisions. Given the enormous time pressure, most early-stage venture teams face, many startups apply the lean startup approach or other techniques and use pragmatism when making decisions. Small, but fast decision-making cycles will be turned and early-stage teams aim to make fast, but rather non-perfect decision, as long the decision reaches a quality level of 80 percent. As the cycle is very fast, the decisions can be adjusted quite rapidly. The focus lies on short-term speed and long-term quality. Hierarchical structures in startups, for example through dedicated founders leads to fast decisions, but rather low quality, as the aspect of different opinions and comprehensive discussion is missing.

In contrast to the main causes of fast decision-making, which are (1) lack of resources, and (2) intrinsic motivation of the founders, many early-stage startup teams aim for high quality decisions and neglect the factor of pure speed. In high-tech startup teams, the technological development stands in focus of the business. Summarized, the need

for speed is closely related to the area of interest or the industry, the startup team is active in and the overall situation of the company.

5.2 Propositions

5.2.1 Proposition 1: *With regards to team size, a small size of the team has positive influence on the speed of making decisions.*

Proposition 1 can be fully confirmed. Small teams distinguish themselves by direct connection among the team members in terms of physical connection by mostly working one desk. This enables very short information ways and direct exchange of information (Ries, 2008; Croll & Yoskovitz, 2013). Teams with 2-4 people seems to be the best team size as it delivers enough different meanings to show a realistic big picture of the upcoming decision, but still keeps the process lean and fast. Too many different viewpoints are rather unnecessary for startups, which are goal focused and often follow the very pragmatic Pareto Principle (80/20 rule). The teams have no time for intensive research and long discussions. For many teams it turns out to take two fast decisions, then one slow decision. A small team size has positive influence on the speed of the strategic decision-making process.

5.2.2 Proposition 2: *When the internal team structure is open and personal, the process of decision-making is faster.*

Proposition 2 can be confirmed partly. The problems with open structure and low hierarchy are the low level of control and high risk of only medium use of personal working potential due to distraction. The findings confirm the positive influence of closed, hierarchical internal structure on the speed of decision-making. Teams with one powerful leader seem to be faster in strategic decision-making, as the individual leader can shape the decisions without consulting other team members (Talaular, Grundei & Werder, 2005). As advice it can be mentioned, that a semi-open structure can be recommended. A clear and strong foundation and basic rules in combining with an open and flexible work environment and atmosphere results into high quality output and high personal motivation (Herzberg, 2005). Open and personal internal structure is not directly supporting fast decision-making, but instead a tool for positive work climate

and motivation. However, when used in combination with some basic rules, open and personal structure can have positive influence on the speed of the decision-making process.

5.2.3 Proposition 3: *Under informal and personal communication the startup teams can be make faster decisions and speed up the entire process of decision-making.*

Proposition 3 can be fully confirmed. Early-stage startup teams make use of direct and informal communication Harper (2008), which results into higher decision comprehensiveness (Talaucar, Grundei, & Werder, 2005) and speed of the entire decision-making process. In comparison to the internal structure of early-stage startup teams, the internal communication is allowed to be very informal and without any common structure, as long as the communication content is still work-related. It needs to be distinguished between informal communication channel and informal language. Informal and personal communication channels display a perfect alternative in order to share information fast and uncomplicated which can speed up the entire decision-making process. Informal language on the other hand needs to have basic rules to avoid bad language or too much unfocussed communication for example.

As advice, it can be said, that the startup teams should set up a few critical communication rules at the very beginning to avoid the mix of private and business content or unfocussed communication. Maybe the teams can make use of separate communication "groups", one private WhatsApp group for staff and one professional WhatsApp group, or Skype chat for professional business reasons exclusively. In summary, informal and personal communication has strong and crucial influence on the speed of decision-making in early-stage startups and can be seen as most important team characteristic of this research project.

5.2.4 Proposition 4: *The environment of the early-stage startup teams will lead into faster decision-making.*

Proposition 4 cannot be confirmed. The environment shows no direct link towards faster decisions. The competitive environments, entrepreneurial teams need to react with aggressiveness and proactiveness (Lumpkin & Dess, 2001), in practical research

however, no direct influence on faster decision-making could be found out. Competitors build an additional information source, but especially early-stage high-tech startups follow their own path, are often technology leader and strategic decisions are not directly influenced by competitors. For early-stage high-tech startups, the barriers to fast decision-making lie in other reasons: limits in resources, weak network and complex bureaucratic or technical boundaries. Early-stage startup teams make use of their personal and professional environment to raise the quality of decisions, as they consult family and friends or professional contact, when they are insecure about a potential strategic decision. This has a negative impact on the speed of the decision-making process, but improves the quality and comprehensiveness of the strategic decisions enormously (Talaucar, Grundei, & Werder, 2005).

5.2.5 Proposition 5: *The internal trust inside the teams enables a faster internal decision-making process in the startups.*

Proposition 5 can be fully confirmed. The internal trust adds to an important combination with communication and team size. The main difference to "common" established companies is that early-stage startups show greater willingness towards internal trust. Trust among team members results into a lower level of fear inside the team and hierarchical levels, trust improves also trustful interpersonal relations in form of communication or general personal contact (Ferrin, 2001; Harper, 2008; Simons & Peterson, 2000). The nature of early-stage startups requires mostly a high level of trust, because the co-founder spend most of their time with each other and fight for one common goal. In summary, the high level of internal trust results into perfect condition for information sharing, which in turn favors fast and high quality decision-making with a high level of honesty.

5.2 Model Revision

The interviews and findings from literature research created more in-depth knowledge and practical insights about team-characteristics and their influence on entrepreneurial strategic decision-making and the speed of the decision-making process in early stage startups. It was revealed that some factors were more important than other. Particularly *trust*, *communication* and the *size* of the teams seemed to be of major importance to the speed of decision-making in early-stage startup companies. Whereas

the *structure* and the *environment* were not considered as very important to the interviewed entrepreneurs.

Regarding to the findings, the team factor *environment* will be removed from the model as key team factors. Furthermore, the different factors will be in different size and form, dependent on their actual importance. Following characteristics have been added and improved: The factor *network* was being added to the model, in order to react on the findings from the interviews. It was mentioned frequently, that the network of the company and of each personal team member has a significant influence on the decision making process in terms of quality and speed. The networks provide useful and new information about markets and customers, which increases the likelihood that the new venture will start up successfully (Grandi & Grimaldi, 2003).

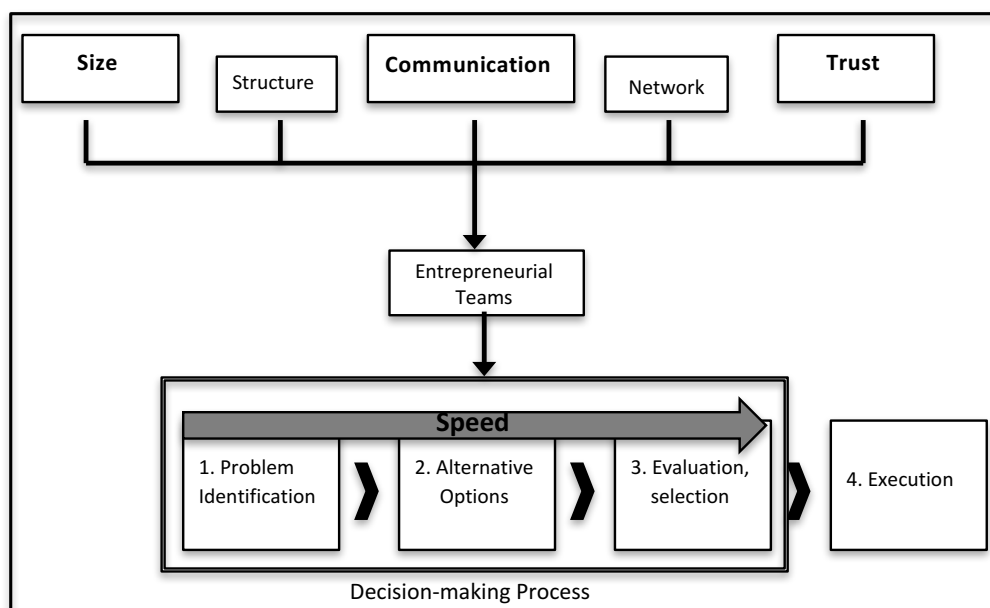


Figure 2: Model Revision

5.3 Contribution to Literature and Practice

The conducted research project shows contribution to practice and literature. With practical regards, the findings can help early-stage teams to improve internal operations of the team and the decision-making process of strategic decisions. A checklist was developed to give the potential startups a short overview about the critical team characteristics which have influence on the speed of decision-making.

Early-stage startup and more developed teams and entrepreneurs can use the checklist to improve their overall decision making or show eventual sources for problems in their decision-making process.

The findings also contribute to gaps in literature of entrepreneurial research as they give further insight about early-stage teams and the internal operation of early-stage teams. The findings about the influence of different team characteristics and the speed of the strategic decision-making process can be used as foundation for further research in various scientific fields.

5.4 Limitations

The definition of strategic decisions may have variations in interpretation. Some teams of the interviewed early-stage startups classified non-strategic decisions as strategic, due to shortcomings in knowledge or experience. The definition of strategic decisions was explained to the interviewees before starting the interview. This may have influenced the generalizability of the findings of this master thesis research project. Due to limitations in resources, it was not possible to compare the teams and team characteristics of early-stage startups with teams of well-developed companies. Also it showed to be very complex to compare different startups of different industries. It was tried to choose a comparable group of teams, but eventually the results can vary, when researching in a different region or city.

6. ACKNOWLEDGEMENTS

My thanks to all the startup teams, team members and the accelerator manager for the support and possibility of conducting this research. A special thanks to my first supervisor for the professional and mental support. A final thank to those who helped and encouraged me during the process of writing this master thesis project, my family for supporting me during my whole study and to my lovely girlfriend, who was by my side always and hopefully ever will be.

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APPENDIX

Appendix A: Interview questions (German)

Interview

Anmerkung: Bevor die Interview Fragen gestellt werden, wird dem Interviewten das Model erläutert.

Allgemein

1. Wie sieht der Entscheidungsprozess in deinem Team aus?
2. Was ist der kritische Teil im Entscheidungsprozess deines Teams?
3. Wie schnell fällt dein Team Entscheidungen? (Warum?) – Ist die Geschwindigkeit der Entscheidungsfindung wichtig für dein Team?
4. Welche Team-relevanten Faktoren haben direkten Einfluss auf die Geschwindigkeit des Entscheidungsprozesses in deinem Team?

Team Größe & Struktur

5. Wie groß ist dein (Entscheidungs-) Team? Wer ist verantwortlich für den Entscheidungsprozess?
6. Inwieweit beeinflusst die Größe des Teams die Geschwindigkeit des Entscheidungsprozesses in deiner Firma?
7. Wie wichtig ist eine offene, persönliche Struktur innerhalb des Teams für das Teilen von Entscheidungsrelevanten Informationen?
8. Wie beeinflusst eine offene, persönliche Struktur deines Teams die Geschwindigkeit des Entscheidungsprozesses?
9. Inwieweit beeinflusst Autorität und Hierarchie den Entscheidungsprozess und die Geschwindigkeit des Entscheidungsprozesses in deinem Team?

Kommunikation & Vertrauen

10. Wie beeinflusst informelle und persönliche Kommunikation der Teammitglieder den Entscheidungsprozess und die Geschwindigkeit des Entscheidungsprozesses.

11. Wie wichtig sind Vertrauen und Freundschaft unter Teammitgliedern für den Entscheidungsprozess?

12. Beeinflusst Vertrauen unter Teammitgliedern die Geschwindigkeit und Qualität des Entscheidungsprozesses in deinem Team? (Warum?).

Umfeld

13. Wie beeinflusst das direkte Umfeld deiner Firma (Konkurrenz, Netzwerk, etc.) den Entscheidungsprozess?

14. Wie beeinflusst das direkte Umfeld deiner Firma (Konkurrenz, Netzwerk, etc.) die Geschwindigkeit des Entscheidungsprozesses?

15. Wie beeinflusst das persönliche Umfeld der Teammitglieder die Geschwindigkeit des Entscheidungsprozesses?

Appendix B: Interview questions (English)

Interview

Instructions: Before asking the interview questions, the model will be explained to the interviewed.

General

1. How does the decision-making process of your team looks like?

2. What is the critical part of decision-making in your team?

3. How fast does your team make decisions? (Why?) – Is the speed of decision-making important for your team?

4. What team-related factors have direct influence on the speed of decision-making in your team?

Team size & structure

5. How large is your decision-making team and who is responsible for decision-making?

6. How does the size of the team influencing the speed of decision making in your company?

7. How does an open structure of your team influence the information sharing of decision relevant information within the team?
8. What is the influence of an open team structure of your team on the speed of decision-making?
9. How does the level of authority and hierarchy influence the decision-making process and the speed of decision-making in your team?

Communication & trust

10. How does informal and personal communication of team members influence the decision-making process and the speed of the decision-making in your team?
11. How important are trust and friendship among team members for the decision-making process?
12. Does trust among the team members influence the speed and quality of decision-making in your team? (Why?)

Environment

13. How does your company's environment (e.g. competition, network, etc.) influence your decision-making process?
14. How does your company's environment (e.g. competition, network, etc.) influence the speed of the decision-making process?
15. How does the personal environment of each team member influences the speed of the decision-making process?