



CHALMERS
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Are startups doing what they believe is important?

*Master's Thesis in the Master's Programme
Management and Economics of Innovation*

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Master's Thesis E2017:120

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Gothenburg, Sweden 2018**

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A handwritten signature in black ink, appearing to read 'Yldrin Halili'.

Yldrin Halili
Gothenburg, 2018

Abstract

The lean startup methodology has become popular amongst entrepreneurs, professionals and scholars, and some of the world's leading business schools and startup accelerators are using it today for their entrepreneurship programs. However, these principles do not touch psychological factors that have been proven important for teams in order to be creative and innovative. This study was done since it was deemed interesting to see if there is a discrepancy in what of the above mentioned that startups believe is important for their future success, and to what degree they actually practice it.

In order to investigate the discrepancies, a framework consisting of in total 25 innovation psychology and lean startup methodology theory groups was built. The relevant theories, were identified after a literature review and ten interviews with startup founders. In an iterative manner, 25 statements for a survey were created based on the theory groups. Survey respondents had to rate the importance and the agreement for every statement. The sampling for the startups participating in the survey was delimited to Swedish startups due to the short time limit for the study and the lack of personal network of startups abroad. The study was further limited by only having one startup accelerator participating; the other startup accelerator did not manage to reach out to its startups in time. However, due to the sample size, the wide array of fields for the startups participating, and the relatively low spread of the answers, the author is confident that the findings can be generalizable to Swedish startups in general.

The findings show that the average discrepancy for startups is -9.80%, which can be considered low. This result indicates that startups are much better than large companies at practicing what they perceive is important for their future success. Furthermore, startups seem to have a propensity for practicing the factors that can be derived from innovation psychology. The factors derived from the lean startup methodology are not practiced to the same extent. Moreover, attempts have been made to create profiles regarding the startups surveyed. These are hypotheses based on the responses that have stuck out in the survey and should be tested in the future. To conclude, a future study should look into which of the IPLSM factors correlate to successful performances for startups.

Definitions

The most common words/phrases in this master's thesis are described below.

Startup: A temporary organization used to search for a repeatable and scalable business model (Blank and Dorf, 2012).

Business model: A business model describes the rationale of how an organization creates, delivers, and captures value (Osterwalder, 2009). Osterwalder (2009) defines the business model in nine different blocks.

Lean startup methodology: A methodology for business and product development developed by Eric Ries (2011). Aims to cut development cycles by adopting a hypothesis-driven approach, where hypotheses about the different business model blocks are tested as efficiently as possible. The goal for a startup is to get validated learnings and finally reach a perfect product-market fit.

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1. Introduction

The introduction will present the reader to the background of this thesis. The aim and goal with the report and the problem description will also be covered. The sections regarding literature, methodology, findings, analysis and discussion will be briefly described as well.

1.1 Background

As Mansoori (2017) states, the lean startup methodology (Ries, 2011) has become popular amongst entrepreneurs, professionals and scholars (Eisenmann et al., 2013). Mansoori (2017) further notes that “A growing number of prominent entrepreneurship programmes (e.g. Stanford University, Harvard Business School, Berkeley, Columbia University) and accelerators (e.g. Techstars, 500 Startups, Y Combinator) have begun to favour the use of the lean startup methodology over business planning approaches [...]. These programmes explicitly encourage, and in some cases, require students and entrepreneurs to follow and adhere to the instructions of the lean startup methodology.” (p. 812-813).

In brief, the Lean Startup Methodology (LSM) is applying the philosophy of traditional Lean, i.e. reducing waste in manufacturing, on entrepreneurial startups' processes (Ries, 2011). As startups are formed to search for repeatable and scalable business models (Blank and Dorf, 2012) and work in environments with extreme uncertainties (Ries, 2011), the LSM aims to lower the uncertainty by involving target customers throughout all product development processes, which Blank (2007; Blank and Dorf; 2012) calls customer development. Ries (2011) means that “The goal of a startup is to figure out the right thing to build - the thing customers want and will pay for - as quickly as possible” (p. 20), hence a startup needs to avoid all the “[...] tremendous waste I saw all around me: startups that build products that nobody wanted [...]” (p.7). Ries (2011) proposes a set of processes in his methodology, that reduce the risk of building products that there is no demand for, hence saving time and money for new ventures. Most of the processes proposed are about getting real customers' behaviors in order to validate or invalidate the assumptions the startup has about its target customers, and doing so in an as efficient manner as possible (Ries, 2011; Bieraugel, 2015)

However, the principles of the LSM can be considered “hard” factors, since Ries (2011) is proposing processes to use, i.e. ways of working. The LSM (Ries, 2011) does not touch “soft” psychological factors that are important for teams in order to be creative and hence innovative, such as intrinsic motivation of the team members, or the importance of “togetherness” (Denti, 2012), nor does it touch the diversity of the team (Kakarika, 2013). Furthermore, many studies have looked into the importance of individual employees' positive moods for workplace creativity and innovation (Amabile, 1996). This is also true on a group level (Shin, 2014; Meneghel et al., 2016), i.e. a positive, happy and excited group is more likely to be creative and hence innovative.

1.2 Problem description

Seeing that the *modus operandi* of some of the world's highest ranked business schools (The Economist, 2017) is more and more turning to the principles proposed by Ries (2011) in the Lean Startup (Mansoori, 2017), it would be interesting to see what startups think of the *importance* of the *LSM*, and to what degree they actually *practice* it. As previously mentioned in the background, it is clear that psychological factors also are important in order for teams

to be innovative and create new useful products, services or solutions. It would hence also be interesting to see startups' perception of the factors that *innovation psychology* encompasses, i.e. to see what startups think of the *importance* of these *innovation psychology* factors for their future success, and to what degree the factors are actually *practiced* by startups.

1.3 Aim

The main goal of this thesis is to better understand the discrepancies between how important startups believe *innovation psychology* and *LSM* (IPLSM) factors are for their future success, and to what degree said factors actually are practiced by the startups.

In order to do this, a sub goal of this master's thesis is to understand what factors current literature proposes to startups and teams, in order to be innovative and successful. A framework consisting of factors proposed by innovation psychology literature and the LSM will have to be developed for this, and will be called IPLSM henceforth in order to enhance the readability. The framework will hence be based on two pillars, comprising the hard and soft factors mentioned above.

Another purpose of this thesis is to gather data for a future study which will look into which of the identified factors actually are correlated to a successful venture.

1.4 Research questions

The study is divided into two parts in order to reach the main goal of this thesis. The first part comprises building the framework that current literature proposes for startups to use in order to be innovative, i.e. finding what IPLSM factors are interesting to analyze. The second part comprises analyzing if there are differences in what factors the startups believe are important for their future success and to what degree they actually follow them.

The above mentioned can be summarized to the following questions:

1. What IPLSM factors are considered important for startups' success?
2. Is there a discrepancy in what startups believe are important IPLSM factors and the degree these factors are actually practiced by the startups?

1.5 Report

Introduction

In the introduction, the background of this master thesis is described. The reader is introduced to the aim with the thesis and why it is important.

Literature

In the literature section the reader is introduced to the relevant literature in order to fulfill the goal of the thesis. The literature subjects are lean startup methodology as well various fields within innovation psychology.

Method

In the methodology section the research methods and design of the study are presented. The development of a framework containing 25 IPLSM statements, is described in closer detail. Moreover, the data gathering and data analyzing methods are described, as well as the quality, validity and the generalizability of the study. The scope and delimitations of the study are also discussed.

Empirical findings

In the findings section the raw data gathered from 34 unique startups and in total 42 respondents is disclosed. The startups' self-assessments using the IPLSM framework are synthesized in 25 graphs, illustrating the differences in what factors the startups believe to be important for their future success and to what degree the factors are practiced by the startups.

Analysis

In the analysis section the empirical findings are analyzed based on the literature from section 2. The analysis will be done on the 25 factors individually.

Discussion and further studies

In the discussion section the findings are discussed and potential reasons for the findings are proposed. Furthermore, the findings are compared to equivalent self-assessments done on larger firms, in order to compare startups and large firms. Finally, further research is proposed. Based on responses that are sticking out, some startups are further discussed in the appendix.

Conclusion

The research questions will be answered and contributions to theory presented.

2. Literature review

This chapter will highlight theories that are recommended to organizations in order to be innovative and efficient. The theories are grouped together based on the topics they touch. This is done in order for the reader to get an introductory understanding of the subjects and to obtain a foundation of theory to follow the study. As described in the introduction, the IPLSM framework is supported by two pillars; one pillar with softer factors, such as team spirit, motivation and diversity, and a second pillar with harder factors, such as way of working, measuring and development drivers. The first pillar touches various topics within innovation psychology. The latter one is exclusively comprising of elements from the Lean Startup Methodology (LSM), which can be interpreted as the “new school” of product development, and can be explained as the Customer Development proposed by Steve Blank (2007) combined with agile engineering and business model design (Osterwalder, 2009).

The contents of the subsections in this chapter are directly corresponding to the statements in the self-assessment used for this study. These are used in the method chapter (section 3), the following findings (section 4) and in the analysis (section 5).

2.1 Complexity spurs innovation

Denti (2012) states that projects being complex and challenging activate inherent motivation, which is an important element of creativity. Hammond et al. (2011) also touch this subject and argue that the strongest relationship with creativity and innovation is job characteristics. A complex job, i.e. a job consisting of many different and connected parts (Google, 2017), may stimulate creativity and innovation as those jobs typically include differing activities and challenges (Hammond et al., 2011). Further on, Hammond et al. (2011) state that in order to further stimulate creativity and innovation, the job can be rebuilt to increase complexity and autonomy. The statement of complexity being positive to innovation is not something new, which Damanpour and Aravind (2012) points out in their meta-analysis of organizational innovation. They lift up that complexity, or functional differentiation, has been positive to innovation in both older studies as well as newer ones. Somech and Drach-Zahavy (2013) also argue that functional heterogeneity is positive to innovation. It affects team creativity, which might boost implementation of innovation. Denti and Hemlin (2012) conclude that heterogeneous teams working on complex tasks also have the highest capability for innovation. Denti and Hemlin (2016) further state that innovative work is usually done in unpredictable and complex environments, such as a changing industry or entering a new market.

2.2 Diversity spurs success for entrepreneurial teams

The teams that have the highest potential for innovation are the ones that also are heterogeneous (Denti and Hemlin, 2012). The mix of members from different disciplines and functions affects the team's creativity and hence its innovation implementation (Somech and Drach-Zahavy, 2013). West (2002) further means that a great predictor of innovation is the diversity of knowledge and skills. Kakarika (2013) suggests two key factors regarding diversity that should be taken into consideration when aiming to build a successful entrepreneurial team; diversity of opinion and diversity of expertise. The prior type, refers to “[...] differences among team members in attitudes, values or beliefs [...]” (Kakarika, 2013, p.33) whereas the diversity of expertise is that “[...] members may differ in their level and specialization of education, functional background [...]” (Kakarika, 2013, p.33). Kakarika (2013) further proposes in order for a firm to be successful, the diversity of opinions ought to be moderate; i.e. “[...] some disagreement on hot issues but not to the extreme that create

polarization.” (Kakarika, 2013, p.36). This allows the team members to engage in constructive debates in order to find the best solution to problems they may face. Furthermore, the diversity of expertise ought to be high, in order for team members to obtain correct information to evaluate options and see problems from different angles (Klein and Harrison, 2007). Teams with high diversity of expertise get more legitimacy from stakeholders (investors, customers, suppliers, employees) who overall feel that a successful company should include people with complementary backgrounds (Kakarika, 2013).

Startups are more homogeneous compared to other firms, which indicates that the costs related to workforce heterogeneity (e.g. coordination cost) may outweigh the benefits of heterogeneity (Kaiser and Müller, 2015). The startup’s heterogeneity rises with time, even though the increase is smaller than the one of other firms, as team members with other characteristics than the founding team are recruited. This is truer for knowledge-intensive startups than the non-knowledge-intensive ones (Kaisa and Müller, 2015).

2.3 Individual motivation spurs innovation

Individuals need a driving force to support them in overcoming obstacles related to their creative and innovative work (Hammond et al., 2011). Therefore, individual motivation is a critical factor to consider when predicting creative performances (Hammond et al., 2011). Denti and Hemlin (2016) also found an association between personal initiative of a team member and the individual innovation. They conclude that when looking for new hires for R&D, the recruiters should premiere candidates that show initiative and motivational characteristics, besides the standard engineering or scientific skills (Denti and Hemlin, 2016). When an employee’s level of personal initiative is high, new ideas are more probable to become innovations (Denti, 2013).

2.4 Expectations of innovation increases probability of innovation

Denti (2012) argues that expecting more creativity from an employee increases the chances of that person being more creative. This is in alignment with what is known as the Pygmalion effect; expecting a certain behavior from someone increases the probability of that behavior coming true (Rosenthal and Jacobson, 1968). Hence, as Denti (2012) argues, leaders should learn how to harness this “self-fulfilling prophecy”. To clearly encourage creativity and innovation on the job and expecting, or requiring, innovative behavior, can be used as a tool to promote creativity among employees (Hammond et al., 2011). This is further backed by West (2002), who says that clarified objectives lead to creativeness and innovation by contributing to a safe psychosocial climate. Gabarro and Harlan (1986) note that not stating goals, time limits or clarifying functions may lead to teams being inefficient, slow and frustrated.

2.5 Developing human capital is beneficial for entrepreneurial endeavors

Investing in and developing human capital is connected to productivity, venture growth and innovation (Evans-Raoul, 2013; Holmberg-Wright and Hribar, 2016). Holmberg-Wright and Hribar (2016) define human capital as “[...] the value that employees provide through application of their skills, knowledge, and expertise which provides a necessary means for solving business problems, [...] seen as the cognitive skills, abilities, knowledge, personality, attitude, motivation, decision making, interests, and creativity that the worker provides in the workplace. These attributes and skills allow the workers to perform labor which will produce

economic value.” (p.12). For instance, to maintain a competitive advantage, ventures (entrepreneurial and small businesses alike) need to have a continuous increase of interpersonal skills (Holmberg-Wright and Hribar, 2016).

Teixeira and Forte (2017) also recommend that entrepreneurial training should emphasize on factors related to a person’s intrinsic and entrepreneurial drive, e.g. stress and emotions management. In addition to studying theoretical subjects (Schwarz et al. 2009), a crucial part in entrepreneurship programs should involve “[...] a social learning process where the development of crucial life capacities should be the main target of all university faculties.” (Teixeira and Forte, 2017, p. 381).

2.6 Team unity increases performance

Employees who feel that others are caring about them are also more probable engaging in innovative practices, since they experience bigger psychological safety and feel greater meaningfulness about their work (Hammond et al., 2011). In line with this, Denti (2012) means that a team will cooperate efficiently for their collective gain when they experience a feeling of “togetherness”. Both the team innovation performance as well as the individual performance is increased by this (Denti, 2012). Hammond et al. (2011) also support this view; positive relationships with coworkers may stimulate innovation by affecting motivation and psychological conditions. In order for a team to be creative and innovative, West (2002) states that “[...] there must be strong group integration processes and a high level of intra-group safety” (p. 380).

Team conflict on the other hand, could be bad for a firm’s performance (de Jong et al., 2013). Relationship conflict, which de Jong et al. (2013) define as “When team members disagree about interpersonal styles and personal tastes or sociocultural norms and values and involve interpersonal clashes characterized by negative feelings and emotions, such as anger, hostility, and frustration” (p. 1828), lowers a firm’s performance and also lowers the positive side effects from task conflict.

2.7 Common vision spurs innovation

One of the strongest predictors of innovation according to Hülshager et al. (2009) is the vision of the firm and “[...] the extent to which team members have a common understanding of objectives” (p.1131). By taking the necessary time to state the goals and vision, a leader can promote a common understanding within the group. This makes it easier to cooperate and may enhance the innovative performance (Hülshager et al., 2009). A crucial activity for a founding entrepreneur is to shape the team members’ awareness of means and ends so that the venture perception becomes collectively shared within the firm (Witt, 1998).

Entrepreneurs can impact venture growth by mobilizing their team members’ passion by aligning the team members’ self-identity with the venture’s purpose (Yitshaki, 2012). It is beneficial for an organization to have team members that identify with the goals and values of the venture, since they are more likely to take risks and take innovative actions (Moriano et al., 2014).

Denning (2014) means that in order to thrive in the new, creative economy of today, the communication within organizations has to change. He states, “A shift from top down-directives to multi-directional conversations. Instead of telling people what to do, leaders inspire people across organizational boundaries to work together on common goals” (Denning, 2014, p.4).

2.8 Low disparity of power increases innovation culture

Kakarika (2013) identifies the distribution of power and resources within a team, as one of the key factors in order to build a successful venture. Minimizing the disparity of power is recommended (Kakarika, 2013) as it ensures that the venture is democratic, encouraging active participation for all team members.

Bayraktar (2016) identifies the venture thought of as “the founder’s organization” rather than “our organization” as a barrier to building an innovative culture in an entrepreneurial venture. If the founder plays the central role and is perceived as a “hero” by the rest of the team, the venture risks ignoring negative aspects of ideas. “Yes people” may surround the founder, which can lead to groupthink and an inclination to agreeing with the leader’s ideas. Decision-making may then suffer, as well as creative thinking (Conger, 1990, Janis, 1971; Jaussi and Dionne, 2003; Bayraktar, 2016)

Gabarro and Harlan (1986) states that a group is inefficient if someone, or parts of the group, has so much influence, that others’ ideas are dismissed out of hand. The asymmetry is especially dangerous when minority opinions are systematically rejected without sufficient exploration. Members who feel that they have had the possibility to influence a group discussion, are more committed to the decisions decided upon, disregarding if their own opinion has been accepted by the other members or not (Gabarro and Harlan, 1986).

2.9 Safe psychosocial climate to try new things

For a team to be creative and innovative, West (2002) states that there has to be “[...] a high level of intra-group safety” (p. 380). Further, the context needs to be demanding (West, 2002). This requires the team to develop a safe psychosocial climate. Somech and Drach-Zahavy (2013) mean that “A climate in which it is safe to speak up and take risks is suggested to complement the adaptation and implementation of innovation” (p.702). They further conclude the importance of the team members’ right to feel safe when taking risks, such as proposing new ways to work or coming up with different ways of solving problems. Denti and Hemlin (2012) also acknowledge the importance of a good climate for creativity, suggesting that leaders promote emotional safety and respect in the organization. Having this emotional support from the environment may further stimulate team members to engage in innovative behavior (Hammond et al., 2011).

Denti (2012) further suggests that leaders ought to recognize and reward creative efforts, and that they should tolerate a certain degree of experimentation. Risk is deep-rooted in innovation and team members should be allowed to fail. An individual in an environment where it is safe for to take risks, is more likely to engage in taking risks (Hammond et al., 2011). However, tolerating this risk, not annihilating it, is the best strategy (Denti, 2012).

2.10 Industrial experience facilitates innovation

Delmar and Shane (2006) mean that the prior industry experience of the founding team increases the sales and the survival chances for a new venture. However, these effects are not linear and may differ with venture age (Delmar and Shane, 2006). Castrogiovanni and Ribeiro (2012) on the other hand mean that profitability and productivity have a positive relation to the owners’ industry-specific know-how from before starting ventures and the owners’ overall business know-how acquired after starting the ventures. However, the know-how resulting from having worked in a company in the same industry before starting the venture, is related to productivity alone and not related with profitability (Castrogiovanni and Ribeiro, 2012). Hurt et al. (2015) state that a better match between the entrepreneur’s characteristics (know-how, skills, abilities) and the characteristics of the opportunity, can lead to venture success. Further, Song et al. (2008) state that industry experience is positively

correlated to venture performance, and mean that entrepreneurial teams ought to acquire more industry experience in order to increase the venture performance. Lee and Tsang (2001) also mean that an entrepreneur's industrial experience is of importance and state that it is one of the factors that has the greatest effect on venture growth.

Startup managers with previous industrial experience can be beneficial for startups (Delmar and Shane, 2006). An example is the role they may play in the implementation of open innovation (Usman and Vanhaverbeke, 2017). This is due to their credibility amongst the managers in the larger counterparts in the innovation network, and their ability to efficiently handle the latter party. Usman and Vanhaverbeke (2017) explains this as a manager who "[...] knows to knock at the right door at the right time".

2.11 Role experience spurs creativity

Many studies suggest that education and tenure reflect some sort of task or domain knowledge, either through explicit training or experience on the job (Oldham and Cummings, 1996; Kark and Carmeli, 2009; Tierney and Farmer, 2004). This relationship is often motivated by the authors through citing Amabile's (1988) model of creativity. When a person becomes more experienced and gets more knowledge, s/he builds a greater and more integrated inner archive of ideas and facts that can be used as a response to different situations. This would allow her/him to come up with creative ideas to solve problems (Amabile, 1983) which in turn may lead to creative and innovative performance (Perkins, 1986). However, in their meta-analysis, Hammond et al. (2011) do not find that education and tenure consistently are related to creativity and performance. A possible reason for this inconsistency may be that "[...] the relationship between these factors and innovation may not be linear as creativity may develop and decline across the lifespan" (Hammond et al, 2011, p. 99).

2.12 Handling setbacks can be learned and is positive

Blank and Dorf (2012) mean that failing is an essential part of creating a successful venture. Further, Gabrielsson and Politis (2009) believe that a positive attitude to failing can be important to entrepreneurs. It can help them deal with and learn from mistakes and move forward. Closing a previous business due to bad performance gives more learnings than closing a previous business due to other reasons, such as personal reasons (studies, family situations etc.) (Gabrielsson and Politis, 2009), something Stokes and Blackburn (2002) mean can be due to the rather concrete and obvious experience, which may result in more time for learning through personal reflection. The positive attitude towards failure can be learned through new experiences and information (Gabrielsson and Politis, 2009). Gabrielsson and Politis (2009) believe that it is more beneficial for firms to view failure in the steps of venture creation as something usual and inevitable. If dealing with failure is done right, it may present opportunities to learn and develop the venture (McGrath, 1999). However, critical failures in the process of creating a new venture are less important than having closed a previous business (Gabrielsson and Politis, 2009).

2.13 Having a network to turn to spurs entrepreneurialism

Turning to an external network in order to access information and for relevant inputs is something Balodi and Prabhu (2014) mean can compensate for the lack of entrepreneurial orientation of the founders. Read (2017) also highlights the importance of a network, stating that "One of the greatest assets of an entrepreneur is the people s/he knows" (p. 78). This is supported by Sarasvathy (2001), who means that one component of what makes entrepreneurs entrepreneurial is whom they know, i.e. their social networks. Furthermore, communication with people outside the team is an important factor when stimulating innovation in a workplace (Hülsheger et al., 2009). Team members that keep social relations

with individuals outside their own team are more likely to get exposed to different perspectives and new information, hence being able to come up with new ideas (Hülshager et al., 2009). This is further backed by Hsieh and Kelley (2016), who also mean that recurrent exposure to other professionals may give entrepreneurs different and up-to-date information sources, which may facilitate for spotting innovative opportunities.

2.14 Hypothesis-driven approach to develop value proposition is more efficient

Eisenmann et al. (2013) propose a hypothesis-driven approach to entrepreneurship, which “[...] maximizes, per unit of resources expended, the amount of information gained for resolving such uncertainty [the uncertainty in the beginning]” (p.1). The hypotheses are the founders’ underlying assumptions about their business model, and should be validated or invalidated through efficient tests, which is proposed by Ries (2011) in the LSM. Validating or invalidating hypotheses guides entrepreneurs in finding the perfect business model (Blank, 2007). Eisenmann et al. (2013) mean that “[...] the lean startup approach evaluates an early stage startup’s entire business model, whereas intellectual antecedents focus more narrowly on a startup’s product.” (p. 12).

Furthermore, Klofsten (2005) concludes that “The process of ideas development does not really get going until the founders become more receptive to the world around them and involve external partners in the process. One central actor is, naturally, the potential client who becomes involved in the development work.” (p.116). Klofsten (2005) means that usually, in the earliest processes of venture creation, the idea development processes are to a large extent driven by technology, with the technical knowledge of the founders being decisive (Klofsten, 2005). Subsequently, the soft parts of ideas development are underestimated. Startup founders usually lack important resources in combination with an uncertainty about the feasibility of their business model (Eisenmann et al. (2013).

2.15 Finding the perfect product-market fit

A venture should only start the scaling process, going from startups to large, “real” companies, when they reach the product-market fit (Ries, 2011). The product-market fit is when a startup team have optimized its offering to fit the market; i.e. when the product, or solution, in a profitable way meets the needs of the customers on the targeted market (Blank, 2007; Maurya, 2016; Eisenmann et al. 2013). Ries (2011) quotes Marc Andreessen’s description of what the product-market fit means:

“In a great market - a market with lots of real potential customers - the market pulls products out of the startup. This is the story of search keyword advertising, Internet auctions and TCP/IP routers. Conversely, in a terrible market, you can have the best product in the world and an absolutely killer team, and it doesn’t matter - you’re going to fail.” (p.219).

Ellis (2009) means that a startup has reached the product-market fit when more than 40% of the customer base would be “very disappointed” if the product or solution would cease to exist. He further means that being above the 40% line is an indicator that the startup is building the right thing.

2.16 Getting out of the building

Ries (2011) means that startups need to interact with potential customers in order to understand them. Furthermore, Blank (2007) argues that the information and facts needed about the potential customers, markets, partners and sales channels are all “outside the building” and hence have to be experienced by the entrepreneurs themselves. This may be

done by using tests, doing observations or by interviewing potential customers (Constable, 2014). Moreover, the LSM proposes the usage tests or metrics that measure the “requested”/good behaviors of customers, e.g. number of transactions per month, rather than using non-actionable metrics, such as visitors on website or (Ries, 2011). These types of metrics are further described in section 2.22 through 2.25. Moreover, both Ries (2011) and Blank (2007) are in alignment with Constable (2014), who means that “Being told your idea is cool is not useful; seeing behavior that validates your customer’s willingness to buy is very useful” (p.29).

Based on the feedback from the interactions with customers (such as testing or metrics), entrepreneurs have to make decisions whether to continue with their current business model, to *persevere*, or if they have to *pivot*, changing some of the components in the business model (Ries, 2011; Eisenmann et al. 2013). The last alternative is to *perish*, which means completely abandoning the venture (Eisenmann, 2013).

2.17 Overview of the business model

Blank and Dorf (2012) propose to use the flexible *business model canvas* (Osterwalder, 2009) as opposed to using the more static *business plan*, and mean that this could be the difference between having to close down the venture and success. Osterwalder (2009) describes the business model as “[...] the rationale of how an organization creates, delivers and captures value.” (p.14) and proposes that ventures should use the *business model canvas* in order to describe their business models. Osterwalder’s business model canvas (2005) contains nine building blocks which are further described in appendix 6. Furthermore, there are other variants of the business model canvas that have been developed; the most famous one is the *lean canvas* (Maurya, 2016), which focuses on the customers’ broader problems.

In the customer development process, a startup can use the business model canvas to manage the different hypotheses regarding each component and making changes to it as they get more insights (Blank and Dorf, 2012). Based on real customer behaviors, the firm can then either accept the customer approval or, in the case of customer negatives, make pivots and change the business model to better fit the market (Ries, 2011; Blank and Dorf, 2012). Using the business model canvas as a tool facilitates the process of pivoting, since the canvas visualizes the venture’s different alternatives and helps them see possible changes. Each time the founders make a change to the business model, they should create a new canvas visualizing the changes (Blank and Dorf, 2012).

2.18 Not wasting time by developing the wrong things

Paul Graham, co-founder of Y-Combinator (famous Silicon Valley accelerator), recommends startups to do things manually initially in order to not develop automatic solutions before knowing if there is a demand for them (Graham, 2013). This means startups initially should do things that are not possible to scale to a larger company (Graham, 2013). For instance, startups could be recruiting customers manually and steadily shift to more automatic methods. This is something nearly all startups have to do (Graham, 2013) and the method was also used by AirBnB initially. Furthermore, Graham (2013) also argues that startup team members initially can pretend to be their products for as long as possible, i.e. the team members do the back-end tasks manually, while the users think they are interacting with the actual product (Ries, 2011). As time goes, the team members could steadily automate the bottlenecks (Graham, 2013). Ries (2011) calls this approach *Wizard of Oz* testing, and means it would be highly inefficient if the product would work this way the whole time. However, the goal of the approach is not to permanently do things manually, but rather to see if there is a demand, hence avoiding putting effort into developing an automatic product with no demand (Ries, 2011; Graham, 2013).

2.19 Testing crucial first

Ries (2011) calls the crucial assumptions for *leap-of-faith* assumptions; these are the assumptions on which everything depends and hence the riskiest elements for a startup. Should product features be based on leap-of-faith assumptions that are untrue, building the features perfectly and within the time frame does not matter. It is still a waste of time since there is no one willing to pay for it, and the startup might completely fail (Ries, 2011).

Furthermore, Eisenmann et al. (2013) bring up the importance of prioritizing the testing of different hypotheses. Their general principle is that “[...] an entrepreneur should give priority to tests that can eliminate considerable risk at low cost.” (Eisenmann et al., 2013, p. 9). Should the hypotheses be serially dependent of each other, it makes most sense to try the first hypothesis. If the hypotheses are not serially dependent, the founders can *parallel test* them, which is beneficial especially in winner-takes-it-all markets (Eisenmann et al., 2013).

2.20 Efficient testing through MVPs

Savoia (2011) means that a venture should make sure they are building the right product before building the product right. The manner in which a venture should do this, by *prototyping* the product, something Savoia (2011) explains as “[...] testing the initial appeal and actual usage of a potential new product by simulating its core experience with the smallest possible investment of time and money.” (p. 21) and “Make sure - as quickly and as cheaply as you can - that you are building the right *it* before you build *it* right” (p. 21). This is aligned with what Ries (2011) argues: a venture can lose valuable time by building features or even whole products, that there is no demand for. The LSM recommends startups to use *minimum viable products* (MVPs) in order to start the learning process as quickly as possible (Ries, 2011). There is no need for an actual physical product or prototype for the MVP; it is simply the smallest set of activities needed to validate or disprove a hypothesis (Eisenmann et al., 2013). The MVP allows a startup to go through a so-called feedback loop, meaning that testing an essential business hypothesis, with the minimum amount of effort put into it (Ries, 2011; Eisenmann et al., 2013).

Ries (2011) further states that one of the most disturbing aspects of the MVP for professionals is the quality challenge. Professionals usually aim at always building high-quality products, where all the features and the functions are perfectly done, since the business model is already set and the customers are known (Ries, 2011). However, since a startup targets *early adopters* before it can sell to the mass market, there are no issues with selling a product that is non-perfect (Ries, 2011; Moore, 1998).

2.21 Regular and scheduled meetings to discuss changes to business model

The LSM recommends that a startup should consider a pivot when the effectiveness of the product experiments decreases and feeling there should be a more productive product development (Ries, 2011; Eisenmann et al., 2013). Since the decision of pivoting is emotionally loaded, Ries (2011) suggests that it should be done in a structured way. Startups should therefore have scheduled meetings with the sole purpose of reflecting over whether to pivot, persevere or perish, where the both the product development side and the business development side are participating (Blank, 2007; Ries, 2011). Ries (2011) furthermore recommends that the effect on product optimization is discussed (over time) and compared to the expectations, as well disclosures of conversations with actual and potential customers. The reason for having the scheduled pivot, persevere or perish meetings is to not postpone

the inevitable, i.e. that a startup can lose precious time by not dealing with the pivot question (Blank, 2007; Ries, 2011).

2.22 Using ratios

Croll and Yoskovitz (2013) recommend startups to use metrics that are *ratios* or *rates* of something, as they are easier to act on and by nature are comparative (Ries, 2011). A good metric could be comparable over time, groups of users or competitors (Croll and Yoskovitz, 2013).

2.23 Measuring what is actionable

Ries (2011) means that by using bad metrics, so called *vanity metrics*, a startup may believe it is improving when in reality, it is not, i.e. vanity metrics hide the fact that initiatives of today are not having any impact. These metrics would typically be cumulative numbers, where it is hard to draw any fair cause-and-effect inferences, i.e. making it hard to see if e.g. a feature actually affects customer behavior or not (Ries, 2011; Croll and Yoskovitz, 2013).

Croll and Yoskovitz (2013) mention some metrics to avoid:

- Number of hits
- Number of page views
- Number of visits
- Number of unique visitors
- Number of followers/friends/likes
- Time on site
- Emails collected
- Number of downloads

What these metrics have in common is that they do not tell a startup anything about *how* the customers are using the product or if they are engaged in using it. (Ries, 2011; Croll and Yoskovitz, 2013). Hence, it is not possible to take action on these, and e.g. being positively sure to say that feature XY lead to this many more number of page views (Ries, 2011).

Ries (2011) mentions the *actionable metrics* as good metrics. These would typically be metrics where there is a clear cause-and-effect (Ries, 2011; Croll and Yoskovitz, 2013). It can change the behavior of a startup, e.g. making a startup stop building on feature YX as it is clearly not changing the customer engagement (Ries, 2011; Croll and Yoskovitz, 2013).

2.24 Splitting customers into cohorts

Ries (2011) suggests that the use of cohorts-based metrics is one of the most important tools for a startup. Cohorts make data more *accessible*, as it makes the data more comprehensible for the team members. A cohort analysis says “[...] among the people who used our product in this period, here’s how many of them exhibited each of the behaviors we care about.” (Ries, 2011, p. 145).

In addition to cohorts, split-testing is another type of metrics that the Lean Startup recommends (Ries, 2011). Split-test experimentation (AB-testing) is when “[...] different versions of a product are offered to customers at the same time. By observing the changes in behavior between the two groups, one can make inferences about the impact of different variations.” (Ries, 2011, p. 136). Many times, this can expose that features that engineers and designer believe are good have no impact on the behaviors of customers. By using this type of testing and metrics, a startup can save much time by not doing work that customers do not care about (Ries, 2011).

2.25 Using validated learnings as measure of productivity

Ries (2011) proposes that startup teams use *learning milestones* as a measure of productivity. This means using the number of *validated learnings* as opposed to other measurements, such as features enhanced or added to the product or solution (Ries, 2011). The rationale behind learning milestones is “If you are building the wrong thing, optimizing the product or its marketing will not yield significant results” (Ries, 2011, p. 126). Ries (2011) means that many startups blame the lack of results on the engineering team for “not working hard enough” (p. 126) whereas in reality, the problem is that the venture is executing a plan that does not work, clearly in need of a change of direction. This method of working means that product development is pulled from the business model hypotheses (Ries, 2011) and leads to faster insights regarding the business model, which in turn leads to faster opportunities to pivot.

3. Method

The method used in this study is described below. The development of the IPLSM framework is further motivated.

3.1 Research method

The purpose of the study is twofold; (1) to create a framework containing IPLSM factors considered important for startups' success and (2) to see if there is a discrepancy in which of these factors startups believe are important and the what degree these are actually practiced by the startups. Since both purpose (1) and (2) are derived from the existing literature, this study will use a deductive research approach (Bryman and Bell, 2015). In order to fulfill purpose (1), this study uses a descriptive comparative case study in its first part. This is proposed by (Easterby-Smith et al., 2015) as it allows for comparing the opinions of the different startups to find the IPLSM factors considered most important for success. For purpose (2) to be fulfilled, the survey uses a cross-sectional survey. This allows for describing what startups' opinions are and how they vary across the startups (Easterby-Smith et al., 2015).

3.1.1 Research flow

The research flow is as follows: A pre-study was done in order to develop the IPLSM framework necessary for answering the research questions. The pre-study comprised of a literature review and interviews with startups. With the help of the pre-study, 25 statements were created and a survey testing these 25 statements was sent out to startups affiliated to a Swedish startup accelerator.

3.2 Literature review

A framework consisting of IPLSM factors had to be developed in order to answer the research questions. A literature review was hence necessary to be conducted. As described in section 1.1, the IPLSM factors could be split into two types; the "soft" ones (team spirit, intrinsic motivation etc.) and the "hard" ones (processes, frameworks etc.). In order to be consistent, the literature review was also split this way. The first part comprised of *innovation psychology* and the latter comprised of the popular *lean startup methodology*. It shall however be noted that both parts were equally much used as foundation for the statements, as described in section 3.6.1, used in the survey for the data gathering.

3.2.1 Innovation psychology

As the field of innovation psychology is rather broad, the author found direction by interpreting articles by Dr. Leif Denti, a psychologist currently researching organizational innovation at the University of Gothenburg. Based on the works of Denti, a structured literature search was conducted. The Chalmers Library Database was used for this purpose.

The keywords for the search were: *innovation, knowledge, leadership, implementation, diversity, experience, innovation psychology*. These keywords were combined with the following words: *startup, success factor* and *success*.

3.2.2 Lean startup methodology

To understand the Lean Startup movement, the book *Lean Startup* (Ries, 2011) was read. In order to get a better picture of its meaning, and to see possible interpretations of the book, a structured literature search of the topics it touched was conducted. The Chalmers Library Database was used for this purpose.

The keywords for the search were: *lean startup*, *customer development*, *agile engineering* and *design thinking* in combination with the following words: *startup*, *success factor* and *success*. Further on, the author took an entrepreneurship course at Chalmers University of Technology lead by Henrik Berglund, in the spring of 2017. The recommended literature for the course was also read and used for this study, as it relates to the lean startup methodology.

3.3 Data used for the study

The study has used both primary data and secondary data (Easterby-Smith et al., 2015). The primary data was collected by the author in order to answer the research questions. Easterby-Smith et al. (2015) mean that "Primary data can lead to new insights and greater confidence in the outcomes of the research." (p.8). The secondary data collected by Google was used in order to make the comparison between large multinational companies and startups. This is presented in section 6 and in appendix 7. Easterby-Smith et al. (2015) mean that using this type of data "[...] has value through exploring new relationships and patterns within these existing data [...]" (p.8). However, Easterby-Smith et al. (2015) also mean that the context and the purpose of the data has to be taken into consideration.

3.4 Development of IPLSM framework

In order to build an IPLSM framework, it was necessary to validate the literature read and ensure its relevance. For this to be done, interviews were conducted with co-founders of startups. Interviews were used as they allowed to follow up on important questions and topics.

The interviews had dual purposes; besides seeing if there was a need to widen the literature review, they were also used in order to choose the most relevant theories for the IPLSM framework. Once identified, the relevant theories were iteratively made into statements. The wording of the statements was also iteratively trimmed.

3.4.1 Interviews

Ten semi-structured interviews were conducted with founders/co-founders of startups. The initial two interviews were done in order to ensure the relevance of the template and to ensure the time limit of an hour for the interviews. All the interviews were conducted in Swedish, but the key takeaways have been translated into English and can be found in section 3.6. Translating from one language to another might be a possible source of error; this risk can however be considered to be very low as the author is fluent in both English and Swedish. However, there might be differences in the nuances of the quotes due to the translation of them.

It shall be noted that the startups that participated in the interviews were guaranteed anonymity; in order to not disclose their identity, some of the key takeaways have been slightly altered. However, the changes have in all cases been about "hiding" the business ideas, industries or names; there has hence not been any tampering with the actual opinions of an interviewee.

3.4.1.1 Semi-structured interviews

A semi-structured interview approach was chosen, as this allows working in a more flexible manner (Easterby-Smith et al., 2015). The benefits of using semi-structured interview questions is that they can "[...] often give a higher degree of confidentiality, as the replies of the interviewees tend to be more personal in nature." (Easterby-Smith et al., 2015, p.140). It

shall however be noted that what Easterby-Smith et al. (2015) mentions as one benefit of interviews, that the interviewer has the possibility to identify non-verbal clues and hence can dive into further questions, was not applicable for this study to the same degree as described by Easterby-Smith et al. (2015). This was because all interviews were done through either phone calls or Skype; it was thus possible to notice changes in tone of voice, but not possible to identify facial expressions or other body language attributed information. This may have lead to some minor degree of misinformation.

Another reason for why a semi-structured approach was chosen was that it made it possible to *ladder up* or *ladder down*; Easterby-Smith et al. (2015) means that this enables to see the interviewee's value base for interesting questions or allowing the interviewee to exemplify questions. This enabled the author to be flexible in his approach.

3.4.1.2 Interview template

Based on identified topics in the literature review, an interview template was designed (see appendix 1). The template was initially tested in the first two interviews in order to see if there were any topics that were irrelevant or did not fit the time limit of one hour; the startups that signed up for interviewing were told that the interview would take less than an hour and it was important to ensure this. It should be noted that the changes made to the template after the first two interviews can be considered negligible; the changes were either of clarifying character or to remove repeated questions.

In order for the interview questions to be clear and easy to understand, theoretical concepts and jargon talk was aimed at being avoided throughout the interviews. However, in some cases the interviewees themselves used both theoretical concepts and jargon talk, which implied that the author could safely use the same. Furthermore, the questions were designed to spur open-ended answers, allowing the interviewees to reflect. Also, in alignment with Easterby-Smith et al. (2015), leading questions were avoided, as this risked giving the answers the author "wanted to hear".

3.4.1.3 Interview sampling

The sampling of the interviewed startups had two major limitations; the limited time frame and the dependency on the personal network. Since the interviews were done in order to create the IPLSM framework intended for the actual data gathering, the time frame was limited to less than six weeks; reading the literature, setting up an interview template, reaching out to startups, setting up an IPLSM framework and creating a survey, all had to be done within this limited time. Furthermore, the one hour long interviews can be considered an effort for startups to "sacrifice" to an unknown person; having a personal contact was key in order to get the startup people to participate.

In light of this, the sampling done for the interviews can be considered to be a mixture of convenience sampling and ad-hoc sampling, as the startups were chosen based on the ease of access (personal relationship) and availability (time) (Easterby-Smith et al., 2015). Easterby-Smith et al. (2015) mean that this is the most correct method when speed of collecting the data is the priority and with a difficult access. It should though be noted that this way of sampling might be biased, and that Easterby-Smith et al. (2015) mean that the researcher using these types of sampling cannot be confident that the findings are generalizable. An attempt to increase the generalizability was made by trying to talk to startups in completely different fields; see table 1 below. The aim of interviewing the startups was however to see if other fields of literature were needed to be studied, and to choose the most relevant factors for the framework.

Furthermore, in all cases except one, the interviewee was either a co-founder or the sole founder. This ensured that the opinions unfolded in the interviews were representative of the opinions of the startups in the sample, assuming that the founders “know” the organization the best. The possibility that the opinions proposed by the founder/co-founders were not representative to the venture they represent exists, but can be assumed to be lower than for other types of companies. This is assumed since startups usually are much smaller and hence their members’ opinions are much more coherent than in large companies, where the interactions between the members are less intensive.

Furthermore, there is a possibility that the opinions voiced by the people interviewed do not reflect the reality; some of the interviewees were personal acquaintances to the author and it is reasonable to assume that these would be ashamed if they made their teams look bad, hence not telling the whole truth or even giving erroneous statements. However, this risk was mitigated to a high extent since interviewees were promised complete anonymity in combination with being given the choice to not respond to a question if they were not comfortable with answering it.

Further on, the business developer interviewed from Echo 51 was assessed to have sufficient knowledge about the venture and to represent its opinions, even though s/he was not one of the original co-founders. This was largely based on that the business developer was asked to become a partner in the venture, which indicates that the co-founders confide in her/him.

Startup	Type of startup	Interviewee	Relationship (degree)
Alpha 7	Advertising	Co-founder	1st
Charlie 11	Education	Co-founder	1st
Bravo 19	Medical, Health and wellness, IT	Co-founder	2nd
Echo 49	Logistics	Sole founder	2nd
Alpha 27	Logistics, Waste management	Co-founder	2nd
Bravo 32	Platform	Co-founder	1st
Alpha 28	IT, Social	Co-founder	2nd
Charlie 2	Advertising, IT	Co-founder	1st
Charlie 24	Retail, Life style	Co-founder	2nd
Echo 51	Financial	Business developer	1st

Table 1. Showing the interviewees and their relationship to the author.

3.4.1.4 Transcription of interviews

All the interviews were recorded and transcribed. It should be noted that the parts prior to the interview, i.e. the “ice-breaker”, and the parts after the interview, were not transcribed as they were not relevant to the study. Transcribing the interviews allowed for a more precise analysis of the interviews, described below. It should be noted that transcribing interviews like this might mean that non-verbal clues are ignored (Easterby-Smith et al., 2015).

3.5 Analysis of interviews

The transcribed interviews were coded and later matched to the literature. This is described below.

3.5.1 Ensuring a relevant literature review

The author highlighted every paragraph in the interview where the interviewee expressed either (1) that something had been positive or negative for the venture, or (2) that something was perceived to be important or bad for the venture’s success.

The parts highlighted were later on labeled; the label described the meaning of the paragraph. A total of 503 labels were created for this purpose. A selection from the interview with the serial entrepreneur from Alpha 7 is listed below. It should be noted that the meaning of the paragraphs are interpretations made by the author.

- Everyone has to contribute equally much
- People in the team are the most important
- The will to work a lot, towards common goals. Does not suffice with “just enough”

It should also be noted that these labels have been “cleaned up” or masked in order to maintain the anonymity of the interviewees and their ventures.

In order to see if the literature review was sufficient or had to be revised, constructs were created based on the labels (see appendix 2). The labels were first organized so they covered the same type of topic, and based on the topics’ contents, the constructs were created. The constructs created comprised of between one to sixteen labels, and were categorized as either positive (perceived as important by the startups) or negative (perceived as negative by the ventures, or directly contrasting the literature). Later on, the constructs were arranged to further see overarching themes. The themes are shown in table 2 below.

Themes
Business model canvas
Goal/vision
Lean startup methodology
Idea
Support
Processes
Team
Tests
Experience
Traits
Metrics

Table 2. Shows the themes identified in the interviews. These ensured the relevance of the literature.

The themes and constructs indicated that in general, the literature was relevant. The constructs regarding experience and traits lead to a deeper study in the fields of diversity and previous experience of team members. Furthermore, the few constructs for the themes of growth and finance indicated that the literature was abundant; this literature was hence not used and removed from the study.

3.5.2 Ensuring a relevant IPLSM framework

Once the literature was deemed relevant, quotes from the interviewees were matched to the theory groups identified in the literature. A theory group was considered to be relevant for the framework if there were at least 3 positive or negative matches, i.e. 3 matches in total, between an interview quote and the theory group. The criterion for a positive match was when either of the following was true: (1) the venture actively practices or agrees to a theory group or (2) perceives a theory group as important or positive. Furthermore, the criterion for a negative match was when either of the following was true: (1) the venture is not practicing the theory group but believes it is important, (2) the interviewee perceives the theory group as negative to practice or (3) the theory group is directly contradicted by the venture. It should be noted that the negative matches criteria were included in order to fulfill the purpose

of collecting data for the future study which will further research which ones of the identified factors actually are correlated to successful ventures (performance-wise). The underlying quotes have been included in section 3.6 in order to further illustrate the matches. They are structured to follow the logic of the literature review.

3.6 Matching interviews with the theory

Quotes from the interviews were linked together to the theories based on the criterion in 3.5.2. This can be seen in section 3.6.1. Note that this section is structured to follow the logic of the literature review. The table in section 3.6.2 further illustrates which interviews are linked to what theory.

3.6.1 Key takeaways from interviews matched to theory

In this section, the opinions of the interviewees have been compared to the literature. The opinions are summarized in the end of this section.

3.6.1.1 Complex solutions

Hammond et al. (2011) mean that complex jobs might stimulate innovation (complex as in many factors depending on each other, see the full definition in section 3.7.4.1). Note that when asked what prior knowledge the team members had before joining the venture, the co-founder in Bravo 19 implies that the solution was complex since there were so many fields needed for it to work:

*“The problem with our solution is that it comprises so damn many fields. It is a hardware used in health care, thus it needs to follow **so** many standards and rules [...] a software is needed to run it, requiring servers etc.[...] I would say that talking about industry knowledge, we had, let’s say 20 %. So we had to learn extremely much the hard way”*

Denti and Hemlin (2012) conclude that teams working on complex tasks that are heterogeneous have the highest capability for innovation. Further, Damanpour and Aravind (2012) mean that functional differentiation is positive to innovation. Note that the Bravo 19 co-founder implies that the team members’ different expertise in different fields are important. When asked what makes her/his venture have a possibility to succeed compared to others, s/he says:

“[...] and we are an interdisciplinary team. Technicians, developers, doctors.”

Somech and Drach-Zahavy (2013) means that functional heterogeneity is positive to innovation. Note that the business developer interviewed in Echo 51 means that different competences are needed for their solution to work:

“We have extremely different competences - that is what makes our team so important. We need to help one another for our idea to work”

Further note that the co-founder of Charlie 24 responds that complementing each other with different competences has been beneficial for the venture. When asked what characteristics of people that s/he believes has been to their advantage, s/he says:

“I would say we complement each other competence-wise. I am the technical one, working with product development, [...] X is the creative advertiser, [...] Y is super good in sales and has worked in that. [...]. We all have educations in our fields.”

Further on, note that, when the co-founder of Bravo 32 is asked what team members s/he would have chosen for a new venture in order for it to be successful, s/he implies that the venture would need several areas of expertise. This is aligned with Hammond et al. (2011) and Denti and Hemlin (2012).

"I would have chosen a few, but very skilled people. A good team with cutting-edge competence in their areas"

3.6.1.2 Different people

Klein and Harrison (2007) mean that team members need to be different to a certain degree, to have the right amount of information to evaluate options and see problems from different angles. Note that the co-founder of Charlie 24, when asked what team he would have handpicked for a new venture, means that it is not good to have a too similar group:

"Number one, choose the right people. They are the people that are not too similar to you. [...] I think it's good to have people of different ages. If you surround yourself with people that are too similar to you, you won't get challenged and won't develop"

However, note that the same co-founder found that the team feeling was harder to keep when the team has grown, especially since some have been from abroad. It can hence be assumed that they have a different culture than the Swedish venture. This could imply a high diversity of opinion (Kakarika, 2013). The co-founder states:

"[...] It has become harder to keep the team feeling, as our team has grown. And we have recruited from abroad as well, so we have different cultures."

Kakarika (2013) suggests that there should be moderate diversity of opinion and high diversity of expertise in an entrepreneurial team for it to be successful. Note that the co-founder of Bravo 19 believes it is important with people complimenting each other; this would be the advice given to herself/himself were s/he to create a new startup tomorrow:

"To find people that you can work with and that compliment you, both competence-wise but also personality-wise."

Note that the business developer in Echo 51 believes that having too different people in the team, negatively affected the team unity:

"There wasn't always a team unity since some people were so different from each other and had very differing views on certain things"

Note that the Bravo 19 co-founder implies that the team members' different educations and functional backgrounds are important. This is in alignment with Kakarika (2013). It shall be added that the person saying the quote below herself/himself has an education and background within business administration. When asked what makes her/his venture have a possibility to succeed compared to others, s/he says:

"[...] and we are an interdisciplinary team. Technicians, developers, doctors."

Kakarika (2013) proposes that the diversity of opinion should be moderate and not high. Note that the co-founder of Alpha 7 implies that there has been more friction in the venture where

s/he did not know the others from before. This could be interpreted as a result of a too high diversity of opinion. When asked about importance of the team members, s/he says:

"It has actually been worse in the two startups that I was a part of when the school matched us, based on personality and background. It was way worse than when I started up firms with friends [...]. And besides, Y Combinator actually says that the big startups hired from their friends first because it is hard enough running a startup; if you get friction because you don't go along well... I mean, you'll work together so much, if you don't get along well, it will cost more than it tastes."

Furthermore, note that when the same co-founder is asked about the value of team diversity, s/he implies that diversity is important but hard to achieve, and that it is easy to be fooled by "external signs" of diversity. S/he states:

"Diversity sounds good and I think it is very good if you get someone that thinks and is in a different way. You can fool yourself that you are diverse if for example six guys take in a girl in the team, but if she thinks the same way as they do and doesn't come with new point of views, it won't lead to anything."

Kakarika (2013) means that diversity of expertise ought to be high for an entrepreneurial venture to be successful. When asked how the co-founder of Charlie 11 would go about creating a new venture today, note that s/he seems to be unhappy with having recruited without looking at what skills the team members had:

"If I were to start a new venture today I wouldn't just take a constellation that happens to exist, like we did then. We sort of had the mentality that "anyone that wants to join us can join us". I would look more on what industry to go into and what we know."

3.6.1.3 Dedicated team members

Hammond et al. (2011) mean that individuals need a driving force to support them to overcome obstacles related to their innovative work. They therefore mean that individual motivation is a critical factor to consider when predicting creative performances. When the co-founder of Charlie 11 is asked about the important individual attributes of the team members, note that s/he means that it is important to have a "don't give up"-mentality:

"Perseverance is the most important attribute. That you don't quit. [...] No real fails, it's not like failure happens all of a sudden. What happens is that the founders decide that they do not want to continue any more. [...] If you lower your salary to 0 SEK and don't have any debts, no one can make you shut down. [...] It doesn't have to be that you give all you've got for a very long time - it's just that you don't quit when it gets tough."

Further, the same co-founder exemplifies the perseverance mentioned above later on in the interview, when asked about the venture's finances:

"The first year we had a salary of 3000 SEK a month. [...]. I ate porridge most of the meals and had to say no to many fun activities. It sounds bad now, and gave us a huge anxiety then. Some in our team were a bit older and left good salaries. Imagine going from about 50 000 to 3000 SEK a month. Haha!"

Further, when asked if they ever thought of giving up, note that the co-founder of Bravo 19 also highly implies that perseverance is important:

"Initially we had some of that [thoughts of giving up]. We did some financial rounds where we could get half a million SEK in grants. And we didn't get it. That made us depressed for a few days. [...] You're not that used to getting those setbacks when you're that young. Now we are more used to it. We have got 25 NOs in a row but we have money now. [...] I have one post-it note on my computer. It says "Perseverance" on it. That's the most important thing, endurance and keep on fighting" -

Further, note that when asked about the venture's finances, the business developer in Echo 51 also implies that the co-founders were willing to go through a hard time in order to continue with the venture:

"They have probably never put their own money in the venture but have rather lived on a very low or non-existing salary"

Further, the co-founder of Bravo 19 also touches the topic of going through hard times. Note that s/he implies that s/he has had to give up much in social life in order to work with the startup. This can be interpreted as a sign of having the driving force that Hammond et al. (2015) mention. S/he states:

"We bootstrapped for a very long time. So we've had more ownership but didn't have it good financially on a private level. It has been quite tough to be honest. On average we've lived on 12 000 a month for 2.5 years. It's alright when you're a student, but it gets strained when your friends make about 3-4 more than you do. You miss out a lot of the social life - you don't think of it but much of the social is about eating or having drinks out. I can't do that, since I only have 1500 SEK after I've paid for rent and food. This means you lose a lot of your social life. You cannot join your other friends for an after-work. I think that's a thing that many people forget about. [...] My partner has been the one supporting our relationship financially. I haven't been able to save money for an apartment. Let's say that our firm doesn't go well - I'd be really broke and possibly on the street"

Further note that the same co-founder's experience is that the startups that are not committed to their startup, do not live that long. This could be interpreted as a lack of the driving force presented by Hammond et al. (2011). The co-founder states:

"But I think our struggle is good. Some critique to the startup community [...], there are many "latte-entrepreneurs" that spend their time in coffee shops. They don't have the motivation to cope with this commitment. They notice that they don't make any money and then take in a million or so, giving away 40 % to a stupid angel. That way they finance their latte sessions another year. And then they notice that things weren't that good. I've seen many of those, that aren't fully committed. It's more of an alternative to being a freelancer."

Further note that, when the co-founder of Charlie 24 is asked if they have thought of giving up the venture, s/he implies that it is important to focus the positive things and ignore the negative things. This can be interpreted as having the driving force mentioned by Hammond et al. (2011). S/he states:

"Yes, many times. There have been times when things have been tough, like, the money will only last for two-three more months. What will we do then? We've worked our asses off and it still isn't enough. And then you get a no, and things aren't going as well as you thought. And every time, something new comes up. It hasn't necessarily been anything big or much or so, but like getting a new distributor or opening a new key account or so, and you live on that for a while. But at times it gets

hard; it's when things are hard you feel like "What the hell am I doing? I'm working 60-80 hours a week and can't see any results of it". And it's like a ketchup effect, all of a sudden everything comes at the same time. You get 3-4 wins in a row. And everything is perfect again. And you forget the old, bad things"

Further, when asked about the relevance of passion and drive amongst team members, note that the co-founder of Alpha 7 implies that team members need to do more than "just enough", which could be interpreted as having the driving force mentioned by Hammond et al. (2011). S/he states:

"People are A and O. Some spend time on Google searching for their next vacation places, and then complain that they have a lot to do. I've been in those startups too. The important is that you have the motivation to work towards the common goal. That you want to move forward and don't just say "I've done bare minimum now"."

Further, note that the same co-founder also exemplifies that the team members need to have an intrinsic will to work on the common goal:

"I've tried doing other stuff as well and you can't try to push people to do something. Everybody has to contribute and want to build this together. That was what worked."

Also note that the intrinsic will is touched in the interview with the co-founder of Alpha 28. Note that when asked about important individual characteristics of team members, s/he means that it is important that people are driven:

"[...] the drive as well. The more time you are willing to put on this, the more probable you are to succeed. Of course, you have to work efficiently as well, but if you're prepared to put the time on it you will succeed within something. Inch by inch, even if you're not the brightest person, you will learn how to do it."

Further, the co-founder of Charlie 2 also touches the importance of personal drive; note that drive is the first thing he mentions. This could be interpreted as having the driving force that Hammond et al. (2011) mention. When asked what he would look for when recruiting people to his "startup dream team":

"Recruit people that are extremely driven, smart and humble. That's my main advice"

Further, this opinion is further supported by the business developer at Echo 51. When asked what the best individual characteristics of the team members have been, s/he says:

"That people are driven"

Further, note that the founder of Echo 49 implies that it has become even more important to motivate people the more the venture has grown. This can be interpreted as that s/he needs to stimulate the intrinsic driving force of the team members (Hammond et al., 2011). When s/he is asked what factors have been the most important for the venture this far, s/he says:

"When I was alone I didn't need to motivate people, I just had to work hard for myself. But now when more people have joined, I have needed to lead by example. If the others see that you're motivated even though it's tough and that you keep working - it has been super important that I am the one that believes in this when times look bad."

Further note that the same founder also highlights that people need to feel so much for the venture so it feels like their own:

“Even if people aren’t owning the firm, it is important that they are part of driving it. It says explicitly in our “culture book”. Run things like it was your own company. People here should always think like it’s their own firm”

Furthermore, note that passion is the first thing mentioned by the co-founder of Charlie 2. This can be interpreted as the team members have a driving force which helps their innovative work (Hammond et al., 2011). When asked for what individual characteristics have been to their advantage, s/he says:

“Our people is extremely passionate in different ways; curious, thirsting for knowledge - listening to podcasts, reading books [...]”

3.6.1.4 Team members aware of responsibilities

Denti (2012) argues that expecting more creativity from an employee increases the chances of that employee being more creative. Note that the co-founder of Bravo 19 implies that the team members are aware of what responsibilities they have. When s/he is asked about the atmosphere in the team, s/he says:

“One of our core values is “Dare and Do”, it is premised to do stuff you haven’t done before, but you are also accountable if things screw up”

Further note that the co-founder of Bravo 32 implies that team members know their responsibilities. This is in alignment with West (2002) and Denti (2012). When asked about the leadership in the team, s/he says:

“And I think it is important to challenge and put demands on the one that’s responsible, it’s not OK to be sloppy. You have to set some type of principle to come forward in the process. I think it is easy to have a picture of startups being sloppy and that things are allowed to go wrong, but if things go wrong and we lose our biggest client, we lose all of our capital. So you have to challenge people and make them feel responsible.”

S/he further exemplifies this. Note that s/he points out that if people do not learn from their failures, it gets frustrating:

“You have to be allowed to do mistakes but let’s say someone has created the module for our website, it is important that it doesn’t break. But if it breaks for the third time, one gets frustrated and wonders how we cannot control this.”

Furthermore, note that when asked what factors have been important, the Echo 49 founder talks about empowerment. S/he implies that as long as the team members know the overall direction, they are free to work however they want. This is in alignment with Rosenthal and Jacobson (1968). S/he states:

“Ownership can be in form of stocks, but in our firm people really own their thing. [...] People really own their own processes. I think that is super important, that I don’t get too much into details in their work. It’s the big brushstrokes that are important.” -

Further note that the co-founder of Bravo 19 finds it important that the venture trusts its team members know what is right to do. This can be interpreted as a safe psychosocial climate (West, 2002). When asked of characteristics of team members that have been important, s/he says:

"We work a lot with autonomy, we have faith in that people work in the right direction and know what is important."

Also, note that the co-founder of Alpha 27 believes it is important that team members are trusted to run their field, indicating of a safe psychosocial climate (West, 2002):

"When we had the developer in the team, he focused on his thing. We complete each other but we also let people do their thing/work, which is nice to do and also important I think."

Furthermore, note that the co-founder of Charlie 2 believes it is important that team members are aware of that they can take action on their own. This can be a variant of the Pygmalion effect (Denti, 2012). The co-founder of Charlie 2 says:

"It's important that people are independent and can make their own decisions, without being dependent on someone else. If you're good, which you are if you are in our team, and if you think that what you're doing is the right thing for the firm, we trust you on that."

Furthermore, when asked what traits have been important for the team, note that the co-founder of Alpha 27 implies that the venture lets team members know what is expected from them. This can be interpreted as the Pygmalion effect (Rosenthal and Jacobson, 1968; Denti, 2012). S/he states:

"We are not afraid to question each other, set demands for each other and double check afterwards"

Furthermore, note that the co-founder of Charlie 11 mentions that, as long as s/he knows it is within the explicit frames of a problem, s/he can do whatever s/he wants. This is clearly a team member that knows what is expected of her/him from the rest of the team. S/he says:

"The ball comes to me and X especially. And we break it down to smaller pieces. We then start working much more independently, and I don't ask the others in the group about what mini-problems to focus on - I choose them for myself. And as long as I know that they are within the frames of our main problem, I just go for it."

3.6.1.5 Team members aiming to learn new things

Investing in and developing human capital is connected to productivity, venture growth and innovation (Evans-Raoul, 2013; Holmberg-Wright and Hribar, 2016). Note that the co-founder of Charlie 24 believes it is important for the venture's success that the team members continuously develops their capabilities. When asked what the venture does to learn how and what to do in the future, s/he says:

"We study quite a lot. Trying to get everyone at work to listen to some type of podcast related to their job, for at least 30 minutes a day. That is equivalent to reading 18 books a year. It's hard to take the time to sit down and actually read, but listening is easy. If we can get all our coworkers to do so, I think we have a lot to win."

Furthermore, note that the co-founder of Charlie 2 also believes that team members continuously developing their capabilities is important. This is in alignment with Evans-Raoul (2013) and Holmberg-Wright and Hribar (2016). The co-founder of Charlie 2 states:

"Our people is extremely passionate in different ways; curious, thirsting for knowledge - listening to podcasts, reading books [...]. If you are smart and thirsting for knowledge, you can beat the ones that know a lot already."

This opinion is also shared by the co-founder of Charlie 11. Note that s/he believes that being updated with the latest research distinguishes her/his venture from many other ventures. Staying up-to-date with the latest research is aligned with Holmberg-Wright and Hribar (2016). When asked what the venture has done to learn how to run the venture, s/he replies:

*"We've put a lot of effort on that. That's probably the thing we've achieved as a team that I'm the most proud of. That's where I find the biggest differences on what we've done and other teams have done [...]. We are in the industry of education and behavioral change. We didn't get it from Y-Combinator but they phrase it very well. **"If you're going to operate in a field, you should be the leaders in that field. You should know more than the others do in the field. What you do is, you read books about the field, and to really get that edge, you have to read research about it."** That's something that very few people do. You simply download scientific research papers from the web and just read them."*

Furthermore, when asked about the knowledge prior the startup, note that the co-founder of Alpha 28 implies that the co-founders has had to learn many new things along the way. This is in alignment with Holmberg-Wright and Hribar (2016):

"Most has been to learn. He's [the other co-founder, developer] learned a lot on the way. It's been a lot about commitment. He has put a tremendous amount of time to wrap his head around this"

Furthermore, note that the co-founder of Bravo 19, means that that team members have learned new things has been important for them. This is in alignment with Evans-Raoul (2013) and Holmberg-Wright and Hribar (2016). S/he says:

"I would say that talking about industry knowledge, we had, let's say 20 %. So we had to learn an extremely lot the hard way. But we had other knowledge, like self-awareness that we don't know that much but being self-confident in that we can learn, or find someone that can teach us. And like, usurp the knowledge in some way."

However, note that the founder of Echo 49 believes that not having offered people a workplace where they can develop and learn has been negative for the venture. This can be interpreted as that Echo 49 has not invested in human capital, which is not in alignment with Evans-Raoul (2013) and Holmberg-Wright and Hribar (2016). When asked what has been bad for the venture, the founder of Echo 49 says:

"Some people have left our firm through the years [...] I should have coached them more and talked more about their future roles. Now, it's more been like that they've said they want to go do an internship somewhere else to "learn and develop themselves". So, working with the personal development, we didn't do that earlier. We didn't show them a career path. We've started doing that now and have realized

the importance of it. We're not a big company in that way, but you will be able to grow personally and develop your career in different roles."

Furthermore, when asked what the venture has done in order to learn how to create venture, note that the co-founder of Alpha 7 had read many books about entrepreneurship without "needing" to do it. This can be considered aligned with Evans-Raoul (2013).

"I read a lot about how to do, even before starting the master's in entrepreneurship. On how to do, I mean, I knew most of that before starting my master's in entrepreneurship"

3.6.1.6 United team members

Denti (2012) means that a team will cooperate efficiently for their collective gain when they experience a feeling of "togetherness" that comes with a mutual goal, and that both the team performance as well as the individual performance is increased by this. Note that the co-founder of Charlie 2 wants the team members to get close to each other. This can be interpreted as that the co-founder wants to create this "togetherness". The co-founder says:

"It's important that the people value other people. We are a good team, we put a lot of focus on building the culture and build near relations between us, not just as colleagues but also as friends."

Also note that the founder of Echo 49 rates team unity almost higher than their product. This can be interpreted as a sign of high level of intra-group safety (West, 2002). When asked about importance of the team for their solution's success, the founder says:

"It's the most important. It's almost more important than the product. You can have a mediocre product, especially in our industry, which is quite conservative. What is the most important, especially in this phase when we cannot afford to pay that high salaries, is to create a unity in the team and make everyone realize we are doing this journey together. So that everyone understands how they affect the company. We have a guy that has worked full time for five months, just working on our culture."

Note that the co-founder of Bravo 19 implies that in her/his venture things went bad when the team unity was low, and that things furthermore went well when the team unity was high. This is in alignment with Hammond et al. (2011). When asked about the importance of team members, s/he says

"The most important thing is the team and the team unity. We had to get rid of one in our founding team just because things weren't working out between us, we just couldn't cooperate with her/him. We had to buy her/him out and after that things went extremely well. We know that if we don't get along good, this will never work out. [...] I think that if you haven't been deep down that shit, it's hard to realize the meaning of it [team unity]"

Furthermore, note that the co-founder of Alpha 7 implies that s/he finds it hard to work with people when s/he can/does not connect to them. Assuming that the relationship conflict is lower with friends than with unknown people, this can be in alignment with de Jong et al. (2013). S/he states:

"Atmosphere is super good and team spirit as well"

"It [team spirit] has actually been worse in the two startups that I was a part of when the school [master's programme in entrepreneurship] matched us, based on personality and background. It was way worse than when I started up firms with friends [...]. And besides, Y Combinator actually says that the big startups hired from their friends first because it is hard enough running a startup; if you get friction because you don't go along well... I mean, you'll work together so much, if you don't get along well, it will cost more than it tastes."

Further, note that also the co-founder of Alpha 28 finds it hard to work with people s/he cannot connect with. This could also be in alignment with de Jong et al. (2013):

"It's extremely important. That everyone contributes to the same degree. [...] I need to get along on a private plane with the people I work with. I need to like them and to get along with them to work with them, but just because I get along with them privately doesn't mean I can work with them. But it has to function on the private plane, that's important. It has to be like a best friend."

Denti (2012) identifies joy as one of the components for a creative team climate. Note that the co-founder of Bravo 32 appreciates a happy atmosphere in the team:

"It's so frickin' important. Just a thing like getting a happy "Good morning!" a Tuesday morning, it does so much to you. It's such an important thing, it's not nice when the atmosphere is tense and not happy. Personality plays a big role, how you react to different situations"

Note that Echo 49 actively works with increasing the team unity. This can be interpreted as the founder's attempt to further enhance the feeling of "togetherness" (Denti, 2012). When asked if they take any measures to strengthen the team feeling, the founder says:

"It's about building a strong team, building cooperation. Next weekend we will gather the team and go fishing. Everyone will cook food and have a good time. Because we believe it is so important with the team, team, team."

"We have a guy that has worked full time for five months, just working on our culture"

When asked what would be the first thing to do with a new team for a new venture, note that the co-founder of Alpha 27 finds it important with the social connection to new team members. This is in alignment with Hammond et al. (2011). S/he states:

"A brainstorming session and to get to know each other initially."

"Have a test period for working and try to hang out with them to see if you like each other"

West (2002) means that for a team to be innovative, there must be a high level of intra-group safety. Note that the co-founder of Bravo 19 also believes the social connection to the team members is important. When asked what factors have been important for the venture this far, s/he replies:

"Communicate, cooperate. To get along with each other. I mean, simply, teamwork" -

Further, note that the co-founder of Charlie 2 implies that good skills does not weigh up for bad fit to the venture. A bad fit to the venture can be interpreted as not experiencing the

feeling of “togetherness” (Denti, 2012). When asked what factors that have been bad for the firm, s/he says:

“In some of the recruitments we did in another country, we didn’t focus enough on culture fit [to the venture’s culture. We just looked at that they were good developers.”

Also the founder of Alpha 27 seems to share this opinion; note that s/he means that people cannot be hired if they do not fit the culture. Not fitting the venture can be interpreted as not experiencing the feeling of “togetherness” (Denti, 2012)

“We are extremely careful with the team and the team unity. Me and the other co-founder are very tight and have the same vision, and are very careful with that we will have a good unity. Very careful on getting to know each other better. That’s why we’re also restrictive on who we take in to the team. We want the exact right people in our team. [...] We want people that complete us. They say that running a startup is like marrying someone - you spend a lot of time together. We would never hire anyone without having test worked with this person and felt that we fit together.

3.6.1.7 Team members with aligned goals

Moriano et al. (2014) mean that it is beneficial for an organization to have team members that identify with the goals and values of the venture. Note that the business developer in Echo 51 implies that the change of customer segment has lead the firm to lose direction. This can be interpreted as the team members no longer identifying with the goals and values of the venture. Further, this can be a side effect of the founders not taking the necessary time to state the goals and vision, which has led to less common understanding with the group (Hülshager et al., 2009). The business developer says:

“Our main purpose of the firm - to actually facilitate and make it easier for private persons - has come to be questioned with the new product development, which has made the firm feel a bit lost lately. The main purpose - helping people in an honest way - worked good as a driver until now, but it’s not the same now that we’ve changed customer segment”

When asked what team members he would want in a new venture, note that the co-founder of Alpha 7 implies that they should have common goals. This is in alignment with Hülshager et al. (2009). S/he says:

“The ones that have the will to work towards common goals”

“The important thing is that people have a will to work towards the common goal. That they want to move forward and not just say “I’ve done bare minimum now””.

Note that the co-founder of Alpha 28 means that being aligned in what and how to do is important. This is in alignment with Hülshager et al. (2009). When asked what is important for team unity, s/he says

“It’s important to have the same vision on how you want to create something. That helps a lot. To share what you want to achieve and that both believes in it.”

Note that the co-founder of Alpha 7 implies that it was not possible to work together when the goals were not aligned between the team members. This can be interpreted as a lack of common understanding, as stated by Hülshager et al. (2009). When talking about a previous startup of hers/his, s/he says:

“The purpose was, from the very beginning, to learn how to run an IT startup. [...] The developer we took in later on, turned out to be more interested in making money than actually learning. We had to buy him out because we had too different goals. We lost a client because they thought our website looked to unprofessional - we didn't care too much but he did. So we bought him out”

Note that, when asked what their purpose with the venture is, the co-founder of Bravo 32 implies that the co-founders were/are aligned in wanting to start a venture. This is in alignment with Moriano et al. (2014).

“Besides our business idea, we wanted to start and run a successful venture. So both the economical parts and actually running a firm. Right now we are motivated to take risks and build a firm that is scalable”

Furthermore, note that the co-founder of Bravo 19 implies that aligning the goals for a new venture is important. This is in line with Hülshager et al. (2009). When s/he is asked what would be the first thing s/he would do in a new venture, s/he says.

“Set expectations and goal for the venture. What timeline everyone has with the whole venture”

The co-founder of Alpha 27 is also in alignment with Hülshager et al. (2009); note that s/he has got advice from other entrepreneurs that it is important to be explicit in the beginning:

“We have got feedback that it's good to early know about the team's exit strategy and what the team thinks about this. If you have the same goals, how much you want to work, how long you want to work, what people are willing to put in. It has felt like a bit of a problem. You want to feel sure that everyone is hunting together for a certain period of time. It's good to have an explicit exit strategy”

Further note that the co-founder of Alpha 27 exemplifies that not being explicit with the goals in the beginning caused them trouble. This could be an example of not taking the necessary time to state the goals and vision (Hülshager et al., 2009) When the co-founder of Alpha 27 is asked what factors have been bad for the venture, s/he says

“The contract with the two additional team members that were with us in the venture in the beginning. They wanted to share the everything equally, regarding the ownership. When we didn't think so, they wanted to get something for the time they had worked with the venture, or take the idea with them somewhere else. Nothing happened but it became a discussion and it was hard. We should have written an agreement regarding the reimbursements and also about that no one could take this idea somewhere else. Not being clearer with the deal, we thought that things would go really bad, it gave us a lot of headache.”

3.6.1.8 Important that everyone is listened to equally much

Kakarika (2013) identifies the distribution of power and resources within a team, as one of the key factors in order to build a successful venture. Minimizing the disparity of power is recommended (Kakarika, 2013). Note that the founder of Echo 49 implies it is important for the venture's efficiency to empower the members. This can be a sign of low power disparity. The founder says:

"[...] one thing I realized really early was that things would be really inefficient if all decisions would go through me. We need to build a flat organization with a very decentralized decision making. It has to be done way out in the organization. It's very inefficient if things have to go through me. Everyone should feel that they can make a decision and that they are allowed to mistakes. But you have to correct it. If you want to run fast, you need to have that structure."

Note that the co-founder of Bravo 19 implies that their venture aims to listen to everyone, but that, due to merits, some opinions are more valued due to the person's expertise or merits. This can be a sign of that parts of the group might have so much influence, that others' ideas are dismissed out of hand (Gabarro and Harlan, 1986). The co-founder says:

"I would never question the coding; I don't really have a say there but if there is a situation where someone has an opinion I'd say we take everyone's in consideration. But some opinions weigh more because that person is involved in the field"

The same can be true for Charlie 24; note that the co-founder of Charlie 24 implies that it is important to listen to everyone but that the co-founders have more insights in what is feasible. Further note that the co-founder believes that this type of thinking might be harming the venture. When asked if everyone's opinion is valued equally much, s/he says:

*"I want to say yes there. But me and the other founders have more insights in the company since we've worked here so much longer. The others [team members] could come up with an idea, and then I'd know that **"We've tested this before and it doesn't work because of X and Y"**. You want to avoid walking on the same landmine again. But it's hard to balance, you can kill creativity that way."*

Note that the Charlie 2 co-founder seems to agree with the previous quote, but does not see this as harmful to the venture as the venture seems to have a clear roadmap. This might be a sign that minority opinions, i.e. the ones coming from others than the co-founders, are systematically rejected without sufficient exploration (Gabarro and Harlan, 1986). The co-founder states:

"Everyone's idea is worth the same, but usually they are not equally good. The ideas coming from me and the other co-founder are usually better. We've been in the company way longer and because of that, we have more knowledge and insights. Overall, our ideas are premiered, not necessarily because they come from us but because we've been in the venture so long and seen how we've done before. It's also so we are aligned with what we will do in 40 years from now and where we'll be then. So people's ideas are evaluated and discussed but 97 % of the times will not be executed because we have too many other things to do. Much of what comes in is more important to do, and not what is in our roadmap."

Note that the Bravo 32 co-founder implies that it is the idea itself that is evaluated, and not whom it comes from. This might indicate that the power disparity is low in the team (Kakarika, 2013). The co-founder states:

"We try to listen to everything. If someone isn't familiar with a topic but has an idea, things could go really good, but also really bad. You notice that quite soon, if it's a good idea and if it should be prioritized. But if you can argue for it and have a method, of course, we listen to that idea!"

However, note that the business developer of Echo 51 implies that premiering the co-founders' ideas was negative for the venture. This is an indication of that the power disparity is high (Kakarika, 2013) and might indicate that the venture is thought of as the "founders' organization" rather than "the team members' organization" (Bayraktar, 2014). The business developer states:

"It was more based on the idea, if it was good or not. And then it doesn't matter where it comes from. But if the ideas came from the founders, you had to argue more against them than someone else. So sometimes we had bad ideas from the founders that went through. That wasn't good for us."

"Some leaders' opinions weighed more even if they were wrong"

3.6.1.9 Important that team members can try new things

Note that the co-founder of Alpha 7 means that it is necessary to take risks in order to advance. This is in alignment with Denti (2012), who means that risk is deep-rooted in innovation and team members should be allowed to fail. When asked about her/his opinions on failing, the co-founder states:

"It's a good thing. You have to try different ways to get forward. Just because you explore and see that something is not possible to do, doesn't mean you've failed. Like the other day, when I spent a whole day programming some stuff. It ended up with us not using it. I programmed something that had 3 % error-rate. We could either do it ourselves or pay \$500 to get it integrated to our customers' systems. I gave it a day, and tried if I could do it. One day has now passed, and it didn't work. So, I've failed with that. I tried and it didn't go all the way, I failed with the code. I now have to pay \$500 to some developers, and things will solve themselves. But it wasn't a failure, it was a way of testing what was possible. If you don't put your focus forward, then you're focusing backwards; by doing that, you'll be way behind the others. And you just can't do that. You have to try"

Further, note that the co-founder of Bravo 19 implies that s/he would look for team members that are not afraid of failing, if s/he would create a new venture tomorrow. This is in alignment Denti (2012) who means that tolerating risk-taking is the best strategy. The co-founder states:

"Multi-disciplinary and dare to run fast, dare to try things. Dare to fail, dare to redo things. Not be afraid and be a bit naive"

Furthermore, the business developer in Echo 51 implies that that people have been allowed to try new things has been a positive factor for the venture. This is an indication of Echo 51 having a safe psychosocial climate (West, 2002; Denti and Hemlin, 2012; Somech and Drach-Zahavy, 2013). When asked what factors have been positive for the venture, the business developer states:

"That it has been a positive and allowing environment. People have been allowed to try things and so forth"

"A lot of positivism. A lot of drive. We celebrate our wins and laugh at our losses. A good atmosphere for people to try new things on"

When further asked if the leadership and team allowed for failure, note that the same business developer indicates that that has been important. This might be an indication of that

the leaders promote emotional safety and respect in the organization (Denti and Hemling, 2012). The business developer states:

"Yes it did. That was important. Really."

Furthermore, note that the Charlie 2 co-founder finds failing inevitable for a startup and seems to believe it helps the venture succeeding. This is in alignment with Denti (2012), who means that leaders should tolerate risk-taking and allow team members to fail. The co-founder states:

"We fail a lot, all the time. We're quite bad at many things. It is in the nature of a startup to fail"

"Only thing that you could press more on, is selling, trying to sell. And run for it. More failures and a higher speed results in reaching what is right, faster."

Further note that also the co-founder of Alpha 28 also finds failing inevitable for a startup. This is also in alignment with Denti (2012). S/he states:

"He [partner] realized today that he has coded wrong and need to put some extra days to redo things. It's included in the startup life"

When asked about failing, note that the co-founder of Bravo 32 means that some things are more important to not fail with than others. This might be an indication of that the leaders tolerate a certain degree of experimentation (Denti, 2012).

"If there's something new to do, we don't have hard restrictions. We have a laid back method for that. When we are developing something completely new, we put a good week on defining it. But after that week we can evaluate how it's going, maybe it's not possible to do. You have to be able to do mistakes but say that you've created the module for our website, it cannot break down"

Furthermore, note that the Echo 49 founder implies that a way to make employees take responsibility is by allowing them to fail. This indicates that there is a safe psychosocial climate in the venture (West, 2002; Somech and Drach-Zahavy, 2013). When asked if there was something s/he wanted to add to our interview, the founder states:

"Build a team and build in the organization to dare to do mistakes, so that people get a lot of responsibility. People don't like to be too steered. It's important to build an environment where people dare to try their ideas. Like, if something doesn't work, we try something else"

Furthermore, note that Charlie 24 aims to have a mistake-friendly culture. This indicates that there is a safe psychosocial climate in the venture (West, 2002; Somech and Drach-Zahavy, 2013), which might stimulate even further innovative behavior (Hammond et al., 2011).

"We put a lot of effort in having a culture where it is OK to do mistakes. I'd rather see that people try and fail and learn rather than they don't dare to try."

Furthermore, note that the Alpha 27 lately have realized that they need to work more with taking risks. This indicates that the venture is enhancing its psychosocial climate and making it safer for team members to speak up. The co-founder states:

"We've thought a lot of this. In the beginning we were more restrictive and looked everything up but now we need to dare to try and see what happens. We try to remind each other of this and strive of working like this"

Furthermore, when asked about the allowing atmosphere, note that the founder of Echo 49 does not seem to have problems with team members failing. This indicates risk-taking is tolerated (Denti, 2012) and that the psychosocial climate is safe (West, 2002; Somech and Drach-Zahavy, 2013).

"And in order to be creative, we have to dare to do mistakes. We don't know where we are in two years from now. You have to dare. Making a mistake once, that's just healthy. [...] But we have a very fail friendly environment so to say. We often say "fail fast"'"

3.6.1.10 Importance of industrial expertise

Delmar and Shane (2006) mean that the prior industry experience of the founding team increases the sales and the survival chances for a new venture. Castrogiovanni and Ribeiro (2012) also mean that the owner's previous industry-specific knowledge is good for the new venture's performance.

Note that Alpha 7 had no previous industrial experience. This is not in alignment with Castrogiovanni and Ribeiro (2012) and Delmar and Shane (2006). When asked what they knew about the industry before starting the venture, the co-founder says

"Nothing at all."

Furthermore, note that the founder of Echo 49 is alone in her/his venture with previous industry experience. This might give the venture more credibility (Usman and Vanhaverbeke, 2017). When asked about the characteristics of the team, the founder states:

+ "One thing that is a bit fun is that no one except me has a logistics background in our firm"

Note that the co-founders of Alpha 27 had theoretical knowledge about the industry prior to starting Alpha 27. This can be interpreted as the "better match" between their know-how, skills and abilities and the characteristics of the opportunity which can lead to venture success (Hurt et al., (2015)

"We got knowledge in X [=topic] through our thesis, but before that this topic was unknown to us. The first two months of our thesis we wrapped our heads around the concepts of X [=topic], through interviews with experts and data gathering for our thesis."

Furthermore, the co-founder of Alpha 28 had been a customer in the industry before. This can increase the sales and the survival chances for the venture (Delmar and Shane, 2006). Further note that co-founder believes that the industry is something that everyone would understand:

"I personally had tried some apps in this field before. And this industry is really easy. It suffices with being human basically"

Also, note that the co-founders of Echo 51 had both practical and theoretical industry experience. This is in alignment with Hurt et al. (2015), Castrogiovanni and Ribeiro (2012) and Delmar and Shane (2006). The business developer of Echo 51 states:

“Yes, some industry knowledge since X was working for Y and also from writing a thesis in this field”

Furthermore, note that the co-founder of Bravo 32 believes their lack of industrial knowledge was good for them. This is in contradiction to Hurt et al. (2015), Delmar and Shane (2006) and Castrogiovanni and Ribeiro (2012). When asked what factors have been important for them, the co-founder states:

“That we’ve been naive. Three years ago we thought that we’d be further than we are now but being naive has helped us and makes us continue. If we’d known that it’d take 7 years we would never have done this”

Note that the co-founder of Bravo 19 implies that not having much industry knowledge has been good for the venture. This is in contradiction to Hurt et al. (2015), Delmar and Shane (2006) and Castrogiovanni and Ribeiro (2012). When talking about what advice s/he would give herself/himself for a new venture, the co-founder of Bravo 19 states that:

“First of all, everything takes so much longer time than you expect it will take. But that might be stupid to tell yourself, because that might scare you off from starting the venture. Maybe you wouldn’t go through with it at all if you knew.”

Note that the same co-founder further touches the same topic when talking about characteristics that have been positive for the venture

“Characteristics.. A naivety that I think has been positive. We had no idea how hard this would be, we thought that we’d be ready in six months but now after 2.5 years we are far from done. And if we would have known from the beginning, we would never have done it. I think it’s good to be a bit stupid in the beginning. I would say all of us carry that trait”

3.6.1.11 Team members were not experts in their roles

Education and tenure can reflect some sort of task or domain knowledge; either through explicit training or experience on the job (Oldham and Cummings, 1996; Kark and Carmeli, 2009; Tierney and Farmer, 2004). Note however that the Charlie 11 team members did not have any and that the co-founder of Charlie 11 finds the lack of technical knowledge disturbing. When the co-founder of Charlie 11 is asked what knowledge the team members had prior to joining the venture, s/he says

*“No, we didn’t really have any. Absolutely not. If I’d redo it today I would have looked more at the people’s competencies. Now, it was more like, I mean, we are a good team and clever individuals and all, but we did not look at what skills that people had. If we’d done that, we would have realized that **“This was a stupid constellation for a software startup. Being six people, and one learning how to code along the way, is not that optimal.”** You can almost hear that.”*

Further note that the co-founder of Charlie 11 implies that knowledge in many areas is important for team members. When asked how team members should be, s/he says:

“Not people that are just all-round, they should also be sharp in many areas”

Furthermore, note that the co-founder Alpha 7 lacked technical knowledge in the beginning in a previous startup but recruited it to the firm. By doing this, the venture got task or domain knowledge (Oldham and Cummings, 1996; Kark and Carmeli, 2009; Tierney and Farmer, 2004) and enhanced its potential to be creative and innovative (Perkins, 1986). When asked about her/his prior startup endeavors, the co-founder of Alpha 7 states:

"I knew very little in the beginning. But then we took in a guy who knew how to program. [...] I guess we had hubris, haha! In the beginning, thought like "I guess I'll have to learn then". I learned how to do the website and stuff but never the algorithm."

Further, note that Alpha 28 also lacked technical competence when starting the venture but recruited it and had to develop it along the way. It can be interpreted that the venture enhanced its potential to be creative and innovative (Perkins, 1986):

"Frankly, zero. We had zero technical competence when we decided to get this thing rolling. When N [partner] came along, we got some technical competence. S/he had some years experience from startups and some iOS and android programming. Most has been to learn, he's learned a lot on the way. It's been a lot about commitment. He has put a tremendous amount of time to wrap his head around this, especially the android part"

Furthermore, note that Bravo 32 had sufficient technical knowledge to get around in the beginning. This can be interpreted as in alignment with Amabile (1983) and Perkins (1986). When asked what knowledge the team members had before starting, the co-founder says:

"More or less, we could build our first platform ourselves. We knew how to code through courses we'd done. And we had the business knowledge through our education. So to a certain degree you could say we had the technical knowledge but we were no experts in the field."

Note that this was also the case for Charlie 2:

"No. The other co-founder had developed some before so he could build us something, but [he is] not an expert. But we early on got a developer with us that had the know-how."

Further note that the co-founder of Charlie 11 believes the venture would have been more efficient initially if the team members would have had the right knowledges from the beginning. This could be interpreted as having the right task or domain knowledge (Oldham and Cummings, 1996; Kark and Carmeli, 2009; Tierney and Farmer, 2004) which could lead to creative and innovative performance (Perkins, 1986). When asked what prior knowledge the team members had, the co-founder says:

"[...] if it's something easy like ours, which doesn't require people with PhDs working like some others do, you can pick up a lot along the way. I myself picked up much design along the way, but it hasn't been optimal. I wish I would have studied it in school instead. But if I would have started a firm today with the knowledge I have, I would have saved a lot of time for myself and done a good job."

Note that the co-founder of Alpha 27 believes that it is important to have the right competencies for the work needed to be done. The right competencies could be interpreted as what Oldham and Cummings (1996), Kark and Carmeli (2009) and Tierney and Farmer (2004) call task or domain knowledge. When asked what team s/he would assemble if s/he were to create a new venture today, the co-founder states:

"I would want a team where the individuals are good at different things, so you have all the necessary competencies for the business idea. Important to touch all areas that are important"

3.6.1.12 Important to be used to setbacks

Gabrielsson and Politis (2009) believe that a positive attitude to failing can be important to entrepreneurs. It can help them deal with and learn from mistakes and move forward. Note that the co-founder of Bravo 19 implies that the venture's team members were closer to giving up when they had not experienced setbacks before. This could be interpreted as that the venture has got a more positive attitude towards failure through new experiences and information (Gabrielsson and Politis, 2009). When asked if the co-founders have ever thought of giving up the venture, the co-founder of Bravo 19 states:

"Initially we had some of that [thoughts of giving up]. We did some financial rounds where we could get half a million SEK in grants. And we didn't get it. That made us depressed for a few days. [...] You're not that used to getting those setbacks when you're that young. Now we are more used to it. We have got 25 NOs in a row but we have money now. [...] I have one post-it note on my computer. It says "Perseverance" on it. That's the most important thing, endurance and keep on fighting."

Further, note that the Alpha 7 co-founder highlights that it is important to be able to handle downsides together. This could be interpreted as having a positive attitude to failing which can help the venture deal with and learn from mistakes and move forward (Gabrielsson and Politis, 2009). The co-founder states:

"You have to get along also when things aren't going that well. Everyone is nice when things go well but try when you want to go different directions. How would you handle that? I actually don't know."

Note that Echo 51 try to belittle setbacks. This can be interpreted as a venture that are aware of that failing is an essential part of creating a successful venture (Blank and Dorf, 2012). When asked about important traits for the team, the business developer says

"We celebrate the victories and laugh at the losses"

Furthermore, note that the co-founder of Charlie 11 believes it is important to have team members can handle a setback and still be positive. This can be interpreted as having team members that can deal with and learn from mistakes and move forward (Gabrielsson and Politis, 2009) and that might develop the venture further (McGrath, 1999).

"To have a reasonably positive mindset. There will always be someone who's going through a tough period in life, I mean life is that way, if that occurs at the same time for everyone in the team, you'll have a very hard environment to work in. If you on top of this have a bunch of people who generally have a negative view on life, this will occur more often. [...] Supporting positive towards each other. Someone who gets right back on that horse and says "Alright, things screwed up. Let's get on it again"

Note that the Charlie 24 team members have dealt with setbacks throughout the years. This can be interpreted as a team that has understood that failing is an essential part of creating a successful venture (Blank and Dorf, 2012) and that learn from it. The co-founder of Charlie 24 states:

“There have been times when things have been tough, like, the money will only last for two-three more months. What will we do then? We’ve worked our asses off and it still isn’t enough. And then you get a no, and things aren’t going as well as you thought. And every time, something new comes up. It hasn’t necessarily been anything big or much or so, but like getting a new distributor or opening a new key account or so, and you live on that for a while. But at times it gets hard; it’s when things are hard you feel like “What the hell am I doing? I’m working 60-80 hours a week and can’t see any results of it”. And it’s like a ketchup effect, all of a sudden everything comes at the same time. You get 3-4 wins in a row. And everything is perfect again. And you forget the old, bad things”

3.6.1.13 Having an entrepreneurial network to turn to

Note that co-founder of Charlie 24 believes the contact with other entrepreneurs has been beneficial for her/his venture’s success. This is in alignment with Read (2017) who means that the network is one of the greatest assets of an entrepreneur. This is also in alignment with Balodi and Prabhu (2014) who mean that turning to an external network in order to access information and for inputs can compensate for a lack of entrepreneurial orientation. When asked what factors have been important for the venture’s success, the co-founder states:

“That has been one of our success factors. We’ve always been good at calling people. People are very open to helping you. We’ve got help from the ones that started X [other venture], people from other ventures, people that know the business. We have always been open to call and ask for advice. PP [other venture] e.g., I called their vice CEO and talked to him for an hour, getting a lot of good ideas and input that we later used.”

S/he continues:

“And then this with the network, even though I hate using that word. But I have got to know a lot of people in the industry and I guess that is networking somehow. To be able to call people and ask, “How did you think about this? How did you do here?””

Further note that Alpha 27 receives advice from others, even people that are not stakeholders in Alpha 27. This is in alignment with Hsieh and Kelley (2016) and Balodi and Prabhu (2014). When asked what advice the venture has received, the co-founder states:

“We’ve got a lot of non-professional advice. Our idea has awoken a lot interest and thoughts among people. It’s been like, I’ve mentioned it to someone once, and later on they come back to me with advice about our venture. Many of the people from university, from previous jobs, from our thesis. Also from people that have started firms themselves but aren’t professional mentors.”

Further note that the Alpha 28 founders reach out to other entrepreneurs for advice. This is in alignment with Sarasvathy (2001), Hülshager et al. (2009), Hsieh and Kelley (2016) and Balodi and Prabhu (2014). When asked what the team members have done in order to learn how and what to do, the co-founder of Alpha 28 says:

"We have talked a lot to other people that have startups, I think you know X and Y [two other entrepreneurs], got advice from them. We try to ask people for advice and are prepared to get criticized."

Sarasvathy (2001) means that one component of what makes entrepreneurs entrepreneurial is whom they know, i.e. their social networks. Note that the co-founder Alpha 7 uses her/his personal network in order to get advice. This is in alignment with Sarasvathy (2001). When asked if they talk to other people on how to run their venture, the co-founder of Alpha 7 states.

"Yeah, I happen to have many friends that have startups."

Note that Charlie 2 also gets advice from other entrepreneurs. This is in alignment with Sarasvathy (2001) and Hülshager et al. (2009). When asked about what type of advice they have got through the years, the co-founder states that

"Overall, we talk a lot to other founders and startups. We get advice from them, even though it's not intentional"

Further, note that the co-founder of Bravo 19 talks to another entrepreneur (her/his partner) on a daily basis. This is also in alignment with Sarasvathy (2001), Hülshager et al. (2009) and Balodi and Prabhu (2014). When asked what type of advice and services they have received, s/he states:

"What we have used has always been free. Or, it's been favours. But I talk to my partner everyday and so on, who's also founded a startup."

Also note that Bravo 32 gets advice from other entrepreneurs. This is also in alignment with Sarasvathy (2001), Hülshager et al. (2009) and Balodi and Prabhu (2014). When asked about advice the venture has received, the co-founder states:

"I get quite much advice from friends that run their own ventures, we talk on a daily basis."

Also note that the founder of Echo 49 has got advice from people that are not stakeholders in Echo 49, even though it has not been that focused on. This is also in alignment with Sarasvathy (2001), Hülshager et al. (2009) and Balodi and Prabhu (2014). When asked who s/he has exchanged ideas with, the founder states:

"I've done everything, mostly sparred with people from other industries. There haven't been too many startups in logistics. And of course, I've talked to people at social gatherings as well. It has been around me but not that focused from my side."

Note that Alpha 27 has had many entrepreneurs around it. This is also in alignment with Sarasvathy (2001), Hülshager et al. (2009) and Balodi and Prabhu (2014). When asked about important factors for their venture, the co-founder states that:

"From the beginning, we have gone to events and have always been in contact with other startups and people"

Note that Bravo 19 has had senior advisors that have helped the venture pro-bono. This can be interpreted to be in alignment with Sarasvathy (2001), Hülshager et al. (2009) and Balodi

and Prabhu (2014). When asked about the guidance the venture has got, the co-founder states:

"And then we got some senior advisors that pro-bono helped us with this and that, just because they thought it was fun to help"

Note that Charlie 24 appreciates the help from agencies aiming to help new ventures. This can be interpreted as in alignment with Hsieh and Kelley (2016). When asked about what factors have been important to the venture, the co-founder states:

"The help we have got from Connect Väst, Almi and Tillväxtverket. Those things have been really good for us"

3.6.1.14 Business model versus product development

Note that Bravo 32 has mostly focused on the business model. Working this way can be interpreted as a variant of the lean startup approach (Eisenmann et al., 2013). When asked about if their value proposition is driven by product development or business model, the co-founder states:

"We've struggled mostly with the business model, how to get users and to pitch it in. Changing the product leads to changing the business model. Both have been important but we've put most focus on the business model side, what the product should fulfill. The business model has driven the product optimization"

Furthermore, note that Bravo 32 works with hypotheses and also enjoys testing them. This is an example of the hypothesis-driven approach to entrepreneurship that Eisenmann et al. (2013) propose. When asked about if they have assumptions about their business model, the co-founder states:

"We can have big ones or small ones. If an idea pops up that isn't aligned with the company right now, you put up your own project for this and the person with the idea can work a bit more on this idea himself. If it looks promising, s/he works more. Otherwise leaves it. We work a lot like that and it's fun to test them"

Note that the value proposition of Echo 51 has mainly been driven by product development. This might lead the venture to develop the wrong things (Ries, 2011; Savoia, 2011). When asked about if their value proposition is driven by product development or business model, the business developer states:

"It has rather been indirectly changes to the value proposition as a result of changes to the product. Now when the venture is in a product development phase again, realized that all changes to the product development also changes the business model. So it's rather been the product development that has driven the business model changes."

Furthermore, note that Echo 51 just recently started working with explicit hypotheses but does not have support to test them. This can be interpreted that the co-founders do not believe it is important to work hypothesis-driven, which contradicts Ries (2011) and Eisenmann et al. (2013). When asked about if they work with hypotheses, the business developer states:

"We made our hypotheses visible or explicit for the first time a couple of months ago, with the new product development. But we haven't been mature enough to try these in a concrete way or to follow them up regularly, partly because we haven't got the support from the founders to try them out, also because we haven't had a product/prototype to try it on in a concrete way, and lastly because our KPI data hasn't been available or reliable"

Note that Charlie 24 considers itself to work with hypotheses, even though it has historically been hard to test them. Nevertheless, this is in alignment with Eisenmann et al. (2013) and Ries (2011). When asked about if the venture works with hypothesis, the co-founder states:

"I would say so. We've done it through our business plan, and that contains all these parts. And we've updated it along the way, when we've added a new channel or new segment or whatever. [...] We have had hypotheses about that "Buyers will be women aged 25-45..." in that style. But has been hard to test, now when we have our own webshop it is easier to test. What makes ours harder is that our buyers are not necessarily the users of the product. Our X [country] team had a bunch of hypotheses that they tested by sending out a survey to the customers. In the Swedish market we have had some assumptions that have been quite alright, we have had ourselves as a starting point"

Note that Charlie 11's value proposition initially was driven by its product development and caused the venture problems. Note that the co-founder implies that working on the business model would be recommended. Doing so would be in alignment with Eisenmann et al. (2013) and Ries (2011). When asked about if their value proposition is driven by product development or business model, the co-founder states:

"My point is that it's very un-nice to do that way [product development]. We saw that we had a solution, and looked at what we could do with that. That's the wrong way to go, to have a product and try to find people to it. It's the wrong end to start in. Which was what we did. And we had to eat it up a couple of years later, when we actually went to the bottom with our problems, and looked at what problems we were actually solving"

Furthermore, note that Charlie 11 is not as stringent with hypotheses as it has been. Nevertheless, this is in alignment with Eisenmann et al. (2013) and Ries (2011). When asked if the venture works with hypotheses about their business model, the co-founder states:

"Regarding hypotheses, we worked more rigorously with them before than we do now. For a time, we were very rigorous with the hypotheses and tracked them over time and so on"

Furthermore, note that Echo 49's value proposition historically has been driven by its product development and that the venture lately has realized it should have focused more on its business model. This latter part is in alignment with Eisenmann et al. (2013).

"We've worked much on the product side actually. There are some challenges to that. I've seen that there are challenges to our business model. I mean, we are positioned between the customers and the big logistics players. It's not that obvious that they appreciate having us as an intermediary. This would never have worked just four years ago, but they've realized they can't put focus on the smaller customers.[...]"

Initially we looked a lot on the product development. We have now realized that there is a value on looking at the business model development as well. I knew we would have to do that later on, but the logistics industry is changing rapidly. Knowing what business model might work in the future is very hard to tell. There are many positions we can take.[...] We haven't yet decided on how our value proposition will look like in the future. There's so many things going on [in the industry] and it's important for us to be able to quickly change our business model. It's important having the width and degrees of freedom. At the same time, this is dangerous, since it makes us to unfocused. We are constantly building a width to our platform, which can be a bit inefficient. It's important to have a nisch and to be focused. We've built a width because we see that there are too many uncertain factors and feel it's too dangerous too get a nisch to early"

Note that the founder of Echo 49 would want a value proposition more driven by the business model (as opposed to product development). This is in alignment with Eisenmann et al. (2013) and Ries (2011). When asked what advice the founder would give herself/himself if s/he was to create a new venture today, s/he states:

"I would probably have looked much on the business model. I believe the business model is super important. Even if you have a really good product your business model can limit you. [...] It's hard to know how other businesses think, and today you're dependent in a different way. It's very seldom that you create value all alone, with what you're building. Usually you have a network or partners that are with you and co-create value with you. Then it's super important to look at the business model. Is this sustainable? Is there a high risk being in this position? [...] Generally speaking I would say that business model is really important"

"From the beginning we were building the product. Not so much on whom it was creating value for. I guess you could say that we should have been more customer focused initially and looked at who actually was our customers. That would have been healthy for us, and we didn't do it. So our platform is very general."

Note that Echo 49 recently started working with hypotheses. This means it is in alignment with Eisenmann et al. (2013). When asked if they have worked with assumptions, the founder states:

"It's mainly now, the last time that we've started building up personas and how we think our customers act. We have hypotheses there on how we believe that they react. Based on the personas"

Furthermore, note that Charlie 2 until recently has been focused on product development. This is not in alignment with Eisenmann et al. (2013) and Ries (2011). When asked about if their value proposition is driven by product development or business model, the co-founder states:

"What we've mainly worked on until the middle of this year is building the product and selling. It depends on what the definition of business model is, but it hasn't been optimizing the product but more building it, large chunks"

Further note that Charlie 2 after building a finished product, has not focused more on the business model. This is not in alignment with Eisenmann et al. (2013) and Ries (2011). When asked if the venture has focused more on developing the business model after finishing the product, the co-worker states:

"No, we don't really work that much on that. The development of the product just, and then this results in some other products. So, some sorts of side effects. Today we get paid transactionally but we will want to change and get paid for some things like through a subscription"

Further, note that Charlie 2 seems to be working with hypotheses. This is in alignment with the hypothesis-driven approach that Eisenmann et al. (2013) propose. When asked about if they work with hypotheses, the co-founder states:

"Usually we try to run an MVP when we have a hypothesis, to get some feedback."

Note that Alpha 27 dismantled its product development in order to focus on the business model development. This could be interpreted as what Klofsten (2005) means when concluding "The process of ideas development does not really get going until the founders become more receptive to the world around them and involve external partners in the process. One central actor is, naturally, the potential client who becomes involved in the development work." (p.116). Further, it is in alignment with the hypothesis-driven approach recommended by Ries (2011) and Eisenmann et al. (2013). When asked about if their value proposition is driven by product development or business model, the co-founder states:

"After the idea took place we started the product team. A programmer and developer that developed the platform and we the others worked on the business model, saw where the need was. We started big in order to scale. We looked at what data to have on the platform etc. We realized that we didn't have the time to develop a platform before we knew we had a working concept. We could easily have ended up in a situation where we have a platform with features that are useless"

Further, note that Alpha 27 works with hypotheses. This is in alignment with Eisenmann et al. (2013). When asked about if they work with hypotheses, the co-founder of Alpha 27 states:

"Yes, we do. From the beginning we put up hypotheses and they have changed in the meanwhile. They change every time we make a new interview template for the market research"

"We've put them as questions. We try to see if they are true or not, trying to get ourselves an overview of why customers want our solution"

Note that Bravo 19 has worked parallelly with developing both the product and the business model. Further note that the venture has worked stringently with hypotheses. This is in alignment with Eisenmann et al. (2013) and Ries (2013). When asked about if their value proposition is driven by product development or business model, the co-founder of Bravo 19 states:

"It's been parallel work with the product development and the business model. We've been four-five people in the venture and I've been the one primarily focused on the business side, whereas the others have focused on the actual product"

S/he further says:

"We had brainstorming sessions to generate hypotheses, and to bridge knowledge gaps. We then added some methodology to be able to quantify or confirm the

hypotheses, added some difficulty to do, and lastly weighed how important the hypothesis would be in order to make our thing fly or not. And then summarized the content in order to see where to steer this"

3.6.1.15 Aiming to serve the market and customers better

Note that Alpha 7 believes it is important to fit the solution better to the potential customers. This could mean that they are aiming to get the so-called product-market fit (Blank, 2007; Ries, 2011; Eisenmann et al. 2013). The co-founder states that:

"Right now, the important thing is to understand the underlying problem, what are the customers' incentives and how can we make this thing more attractive to them, to our customer segment"

Note that Charlie 11 changed their customer segment since their (then) current target customers did not have the sufficient incentive to use the Charlie 11 solution. This could be interpreted as a sign of looking for the product-market fit and is hence aligned with Blank (2007), Ries (2011) and Eisenmann et al. (2013). When asked how the venture came up with their actual idea, the co-founder states:

"Originally, we had a solution for a situation similar to the one today, but towards universities. Realized that universities don't have the same incentives to becoming better, so when we tried going to the industry, to businesses, we got a completely other response. [...] But then more demands are put on the solution as well."

"Our main solution was initially one part of many others for our main idea."

Furthermore, note that the venture recently changed their solution significantly (product-wise) in order to solve their customers real problem. This is a sign of wanting to meet the needs of the targeted market's customers (Blank, 2007; Ries, 2011; Eisenmann et al. 2013). The co-founder states:

"We did a gigantic pivot in terms of product but not big at all in terms of customers or market and so one, we weren't solving their [customers] real problem"

Note that the co-founder of Charlie 2 implies that the venture always will change and meet the customers' new demands. This is a sign of continuously aiming to find the product-market fit (Blank, 2007; Ries, 2011; Eisenmann et al. 2013). When asked what the purpose of the venture is, the co-founder states:

"Our vision is to facilitate the customers' journey when they are X. We don't know how it will look like in the future. There are things we joke about that may sound absurd but are still possibilities. [...] We will always continue being a startup, will always find new things to do. I look at it a bit like Facebook and Google. We can just continue developing our product."

Note that quote above has been altered with in order to keep the anonymity of the venture. "X" are what the customers are doing, or are going to do, when they turn to Charlie 2.

3.6.1.16 Important to meet real customers and see what they actually want

Note that the co-founder of Alpha 7 only trusts customers actions and believes that selling unfinished things is the best way of testing. This is in alignment with Constable (2014) who

means that "[...] seeing behavior that validates your customer's willingness to buy is very useful" (p.29). The co-founder states:

"A customer said, "We need something like this", but one has to become better at actually selling it. So, it's good to propose a solution, for example "Let's start a pilot with this for two months, with this and this and that. When do you want to start?" [...] People lie like crazy. Words don't mean anything."

"Testing things through selling is so much better than anything else. You pretend to have it simply. You sell it in, if they buy it, you'll just have to start build it"

Blank (2007) argues that startups should go "outside the building" and experience the customer behaviors. Note that the co-founder of Bravo 32 believes it is important that all employees get to meet customers. This is in alignment with Blank (2007). When asked what her/his new team members would do should co-founder create a new venture, s/he states:

"Everyone should be working operationally with sales initially, to see what the customers are asking for and where the needs are. So everyone understands the research and get the similar, or perhaps different, picture [so everyone gets the same data to interpret in their own way]. And then developed a prototype for the problem"

Note that Charlie 24 through its customers realized its solution could be used for other purposes. This is a clear case of entrepreneurs who based on customer feedback makes a pivot to the business model (Ries, 2011; Eisenmann et al. 2013). When asked how they discovered which customers to target, s/he states:

"[...] then people started use it for other purposes. So we got feedback that they would use them to other things than the things we initially wanted them to use. So the users actually discovered the different areas of use. Feedback from the customers opened up more areas of use"

Note that Charlie 11 waited until a customer bought the product before actually developing it. This is aligned with Constable (2014). When asked what made them start the venture, the co-founder states:

"We showed two pictures done in Photoshop, for the one responsible for those types of courses at our home university.. And then we said "Hey, could we do a course with this program as backbone. It will cost this much. We can build it during the summer" and he went "OK". We hadn't really expected that to happen, so we just had to get onto it and start building."

Note that the team members of Charlie 11 talks to their customers to find guidance. This is a clear case of going "outside the building" recommended by Blank (2007) and Ries (2011). When asked what happens when someone gets an idea, the co-founder states:

"If we get into a heated discussion, then we've failed. If you've done your user research well, it's very obvious what to do. It's barely that you even need a discussion, it's more that you discuss the actual execution of it "How to organize ourselves so we do it as fast as possible?". Those discussions are on another level. It was really a long time ago we were in a heated discussion where someone says "I think this" and someone else says "I think that". When that happens, we immediately say "Well, we have to do more interviews with our customers then, we obviously don't know". And that's it. But it hasn't always been like this. When we started this whole thing, we worked the way you usually do when doing product development. You say

"This would be nice" and then you argue about this is nice or not, what it costs to build it etc., and then you do Scrum Poke and whatever it's called. And then you get heated discussions. Because the underlying fact is lying there like a sad truth. No one knows if this is something that our users need or want. It's all guesses"

Furthermore, note that Charlie 11 has been inspired by the literature on "getting out of the office". When asked what literature they have read and how true it has been for them, the co-founder states:

"I'd say we've followed the advice from the books we've read. Not thoroughly, it's always some skepsis to copying everything a book says, even if we have a tendency of getting blown away by every book we read. But, much of that philosophy, like "Get out of the office", that thing we've taken from the books. As soon as you feel unsure about a thing, or as soon as someone is dreaming about a product strategy, a warning lamp is lit in our heads. We're supposed to be out and figure out the answer, not guess the answer. And this is something throughout the whole company, everything from product development to strategy. I mean, we interview people to see what should be in our brochures for exhibitions and fairs."

Note that the co-founder of Charlie 11 implies it is troubling that it is hard to get negative feedback from the customers. This can be because it hinders the team members to better understand their potential customers (Ries, 2011) and further hinders them to make appropriate changes to the business model. When asked how they get a hold of customers, the co-founder states:

"There we have a big problem, or put it like this: I don't know if it's a problem but it is a fact. And that is that we have a bias of talking to people that are satisfied with the solution. The ones that are not satisfied and that do not like the product are hard to get a hold of."

Note that Charlie 2 believes they have sold undeveloped products. It can be assumed that this was done in order to test the demand. This would hence be in alignment with Constable (2014). When asked if they have used a smoke test, the co-founder states:

"I don't think so. We might have sold some things in meetings that we hadn't developed yet. I guess that's some sort of smoke test. We do that to some extent, especially in the beginning."

Note that the co-founder Alpha 27 believes it would be beneficial for the venture to see how customers act to a mock-up of the product. However, also note that the team members actively work with potential customers in order to understand their needs better. This is in alignment with Ries (2011). When asked if the venture is able to visit customers, the co-founder states:

"It would have been easier to have an MVP or something to fall back on in order to get feedback [from the customers]. But today we cannot do that, because we don't have it. Today we ask, research and gather information on what the customers want to have and how they want the solution to look like. But it had been better if we actually would have been able to test"

3.6.1.17 Importance of the business model canvas

Note that Alpha 7 is not using a business model canvas of any sort due to having negative experiences of it. This is not in alignment with Osterwalder (2009) and Blank and Dorf (2012). When asked if they use a business model canvas, the co-founder states:

"No, we don't use it at all. I used it for the ventures that came through my master's in entrepreneurship. It was a bit of forced customer development when we were given an idea from someone else, without really having felt the problem ourselves. I felt that it didn't work so good so I haven't actually used it since. [...] I could probably draw our business model up pretty quickly and fill in the boxes but we don't actively do that"

Note that the co-founder of Bravo 32 also has had negative experiences of using business model canvases, even though the venture used it in the beginning. Further note that the co-founder believes it could have been beneficial for the venture. This would be in agreement with Osterwalder (2009), Ries (2011) and Blank and Dorf (2012). When asked if and how they have worked with business model canvases:

"A couple of years ago we worked a lot with the BMC, especially in the incubator at our university. We had a lot of focus on it then. But I got the feeling that focus was taken from the actual product. It felt like if you didn't have the answers to all boxes right now, things weren't going well. Which is probably wrong but I got that feeling. It is probably wrong but that's the way it felt"

"No, we used it more in the beginning and we have our own framework now. But maybe that would have been good, to use the BMC"

Note that Charlie 24 visualizes its strategy but only on weekly meetings. Further note that the co-founder believes that the venture is too static to use the BMC. This is not in alignment with Osterwalder (2009), Ries (2011) and Blank and Dorf (2012). The co-founder states:

"I don't know if I could draw it up right now. We haven't had it like, hanging on the wall, however, we've used something similar in a document that we use in our weekly meetings. It's like a strategy template with the vision, mission and goals as a foundation. I think the BMC had become quite static for us, even though it's thought to be dynamic. I don't know how often our segments would change"

Note that Charlie 11 visualizes its business model through the regular BMC and through the Lean canvas. However, also note that it does not find them useful. The co-founder is hence not agreeing with Osterwalder (2009), Ries (2011) and Blank and Dorf (2012) whom all argue that it should be used. When asked if the venture uses a business model canvas of some sort to work on their hypotheses, the co-founder states:

"Hmm, it's nice in theory. A nice piece of paper. But once it's up that wall, you think that it doesn't help you that much. Maybe we're the wrong team for this, but no. We have one of those printed at work, and also the one from Ash Maurya"

Further note the co-founder's example of why business model canvases are not important to Charlie 11. When further asked if the venture has actively worked with the canvas, the co-founder states:

"No, we haven't. Not over time. We've used it in some sessions, where we've been in a room being super enthusiastic and the canvas is there and you put up post-its and so on. But then it starts to dust, and there's nothing more to it. Some people say that's not how you're supposed to use it. But we've realized that we don't need the actual

canvas, we just need to get those things done instead. At least, that's how it's been for us"

Note that Echo 49 historically has not used any business model canvas, but that the co-founder believes it is good to communicate the strategy through a business model canvas. This is in alignment with Blank and Dorf (2012) who mean that the startup can use the BMC in order to better keep track of different hypotheses regarding each component. When asked if they have actually drawn a business model canvas, the founder states:

"No. On the other hand we have a strategy project now where we use it. When you're few people in the beginning, it's easy to communicate the strategy locally. But when you have grown like we have, it has to be formalized, and for that purpose the BMC is very good because it gives a pretty good overview of the whole business model. I can see a value in using it, but we haven't. It's good, I have nothing bad to say about it, even though it is quite simplified"

Note that Alpha 28 has not used a business model canvas until recently, because it was perceived as non-value-adding. The co-founder is hence not agreeing with Osterwalder (2009), Ries (2011) and Blank and Dorf (2012) whom all argue that it should be used. Further note that the co-founder believes it is a good tool in order to communicate the venture's strategy. This is in alignment with Blank and Dorf (2012) who mean that the startup can use the BMC in order to better keep track of different hypotheses regarding each component. When asked how they have worked with business model canvases, the co-founder states:

"Initially I did one, 1.5 years ago. It's completely useless carrying one of those around all the time, like, things change too quickly. Everything, from a business plan to a BMC, we let go of. It's mainly now after the summer that it became actual again, due to two reasons. First, for motivation. Second, to get answers to questions and squeeze out thoughts and get them down on papers, so it becomes clear to ourselves. But mainly to the people around us, that want to know more, like investors or similar. This way we can easily explain to them"

Note that Alpha 27 has used the BMC. Further note that the co-founder believes it has been positive for the venture. This is in alignment with Osterwalder (2009), Ries (2011) and Blank and Dorf (2012). When asked how they have worked with business model canvases, the co-founder states:

"We've worked a lot with it. The first competition we presented our BMC. And we've developed it along in the meanwhile. But lately we've focused more on market research and customer segment. What is good with the BMC is that you get a good overview, and we had it amongst the team when we worked with it during the longer time"

Note that Bravo 19 initially visualized its business model through various canvases. Further note that the co-founder believes canvases are good tools to communicate the strategy with stakeholders. This is in alignment with Osterwalder (2009), Ries (2011) and Blank and Dorf (2012). When asked how they have worked with the BMC, the co-founder states:

"We worked with the BMC about 2.5 years ago maybe. Then we changed to Lean Canvas, because we thought it was better. I thought this was good in that early stage, because we could have had many different functions and many different customers. Since we had limited space we needed to get along and in a condensed way"

communicate to people around us what we were doing. This was good in this initial phase."

3.6.1.18 Doing things manually in the beginning

Ries (2011) and Graham (2013) recommend startups to initially do things manually, in order to avoid wasting time and resources developing features/solutions that there is no demand for. Note that the Alpha 7 co-founder (for a previous venture) initially solved the problem manually, and later developed a programme to solve it. This is in alignment with Ries (2011) and Graham (2013). When asked how s/he went about to start a previous venture, the co-founder states:

"First we used Google in order to find information and filled in the information ourselves to our website. So there was a lot of manual labor initially, probably around probably 40 hours each for me and my partner per month. [...] The programmer we took in built a scraping code which meant it could be done automatically"

Note that Bravo 32 is pretending to have an automated solution while it in fact is a real person behind it. This is an example of what Ries (2011) calls Wizard of Oz testing, which the co-founder herself/himself points out. When asked if they use other test methods than MVPs, the co-founder says:

"Our business model right now is to use "Wizard of Oz" testing. Later on we will do it automatically but right now there's an actual person behind"

Note that Charlie 11 also has presented an automated solution, with a person doing the real work on the back-end. This is in alignment with Ries (2011) and Graham (2013). When asked how they have worked with MVPs, the co-founder states:

"[...] we have pretended to be something that people believe is automated before"

Note that Charlie 2 has actively recruited employees to do manually chores and later on automatize these chores. This is in alignment with Graham (2013), who means that startups ought to do things manually in the beginning and later automate the bottlenecks. When asked what testing they have done, the co-founder states:

"We've done many things like that. More than half the people in the company have started out as interns and done things manually. Later on those things have been automatized"

Note that Alpha 28 does not want to develop useless things and hence does things manually now in order to make them automatic later. This is in alignment with Graham (2013) and Ries (2011). The co-founder of Alpha 28 states:

"The only thing we've done is that we've manually put up ads on the website. We don't want to develop things in vain and therefore have done it manually. We have an advisor who knows the industry and he has helped us with the manual parts, we want to gather the information manually now and later on develop it to be automatically"

3.6.1.19 Testing the crucial things first

Note that Alpha 7 targeted smaller customers initially in order to have learned enough before targeting the large customers. This could be interpreted as the venture testing its leap-of-faith assumptions (Ries, 2011). When asked how they have found their customers, the co-founder states:

"It was planned all along to go for the biggest customers only [customer segment]. But initially we went for some smaller customers, in order to learn."

Note that Charlie 11 was more rigorous the testing of the hypotheses that were critical to the business. This is in alignment with Eisenmann et al. (2013) who mean that hypotheses ought to be prioritized. When asked how the venture has worked with hypotheses, the co-founder states:

"When we came up with the product, as it is now, there were a lot of assumptions that were really risky, we thought. 'Will people like it? Will it work?' Many assumptions were risky. So we put up some hypotheses very rigorously, with falsification criterias that were very numerical, making them very easy to track. [...] However, that was for the decisions that were more critical to the business, like: 'Is this something we dare to go for?', sort of. After a while we felt that 'This is something we want to go for' and then the hypotheses became more like now, our experiments are in the background and working. "

Note that Bravo 19 evaluated how important a hypothesis was for the business to survive or not. This is in alignment with both Ries (2011) and Eisenmann et al. (2013). When asked how they have worked with hypotheses, the co-founder of Bravo 19 states:

"We had brainstorming sessions to generate hypotheses, and to bridge knowledge gaps. We then added some methodology to be able to quantify or confirm the hypotheses, added some difficulty to do, and lastly weighed how important the hypothesis would be in order to make our thing fly or not. And then summarized the content in order to see where to steer this"

Note that Charlie 24 tested its product and value chain before contacting the intended sales channel. Further note that the co-founder is sure that the venture needed to this. This could be interpreted as a venture that tests its leap-of-faith assumptions (Ries, 2011). The co-founder states:

"We had sports teams and school classes etc., that would sell our products initially in order to save money for school trips and so on. That was a really good way to test the product, to see what the customers thought, to see the lead times, quality problems with the factory in China. Because, if you go to X [big retail chain in Sweden] with an order of 10 000 units, and cannot deliver it, you're smoked. You only get one shot with them. So it's important that you can ensure your value chain"

3.6.1.20 Aim to test things as efficient as possible

The Lean Startup recommends startups to use *minimum viable products* (MVPs) in order to start the learning process as quickly as possible (Ries, 2011). There is no need for an actual physical product or prototype for the MVP; it is simply the smallest set of activities needed to validate or disprove a hypothesis (Eisenmann et al., 2013). Further, note that Alpha 7 aims to be efficient when testing things, even though this is not always the case. Nevertheless, it can be interpreted as the venture aiming to use the smallest set of activities in order to validate or

disprove hypotheses. When asked about their mentality when testing things, the co-founder states:

"I want it to be minimal input and maximal output [when trying things], but that's not always how it ends up. You want as good of a yield as possible but that's not always like that."

Note that Bravo 32 sets up the tests fast for its hypotheses. This is in alignment with Savoia (2011), who means that a startup should make sure as quickly as possible that it is building the right product. When asked how the venture tests hypotheses, the co-founder says:

"Yes, we always use tests to try our hypotheses. We are usually very fast on setting up the tests for the hypotheses, sometimes half a day only."

Further note that Bravo 32 uses efficient tests to try hypothesis. These are in alignment with the Lean Startup methodology (Ries, 2011; Savoia, 2011; Eisenmann et al., 2013) When asked what type of tests the venture uses, the co-founder says:

"We use the Wizard of Oz and Smoke testing. AB-testing as well, but sometimes we don't have sufficient data"

Note that Echo 51 historically has aimed at doing tests with finished products. This can be interpreted as the quality challenge described by Ries (2011). When asked how the venture has worked on different tests to check hypotheses, the business developer states:

"There has been some resistance and lack of knowledge to do classical MVPs. We've wanted to have a perfect or ready product when we try something out, that's sort of not the point of an MVP according to Lean Startup. The expression MVP has meant something else, more of a ready product than a simple test. Besides, haven't had a mature product or prototype to use on since there was so much that changed recently. However, for the last product development we did some MVP testing when users got to try prototypes"

Note that Charlie 11 tests customers' demand for features that have not been developed yet. This is in alignment with the tests proposed by the lean startup methodology (Ries, 2011; Savoia, 2011; Eisenmann et al., 2013). When asked about how they work with hypotheses, the co-founder says:

"[...] And then we have an experiment that is in the end of our follow ups, I even think it says "Press here" if you would want to do this or that. And then nothing happens, the page goes "It doesn't work, please try again later". But then we get good data on that people actually want it."

Further, note that Charlie 11 believes that MVPs not always are efficient. When asked what mindset the team members have when trying things, the co-founder says:

"It's always a debate of what an MVP actually is. If you ask one of the other co-founders, we do not have one, haha! He is always further than us in his head of where our product should be, his vision is stretched further out as we advance our product. I think it's extremely subjective of what an MVP is [...]. It is an interesting discussion of what it is. In the earliest phases, I am completely in favour of doing really crappy things in order to maximize the learnings. But pretty soon, you will come to a point where the crappy features you do will cost you. They break, things go

wrong. Let's say I put a couple of hours extra on trying to handle some things that people might do with this interface. Pretty soon, and you don't need many customers for this, but pretty soon you will be very happy that you put those couple of hours extra into it. You won't get those thousands of support calls. That's a tradeoff I struggle with a lot. I'm not in favour of any side here, but it is a tradeoff. Like, "How much would it suck if I put too little hours into this, and think it through too badly. The learnings we get, are they worth it [the support calls and problems]"?

Note that Echo 49 uses AB-testing. This is one of the tests proposed by the lean startup methodology (Ries, 2011; Eisenmann et al., 2013). The founder says:

"We send different texts to customers and see the conversion rates there. Also in the marketing emails. And then we measure the outcomes with a tool"

Note that Charlie 2 usually use MVPs. This is in alignment with the lean startup methodology (Ries, 2011; Eisenmann et al., 2013). When asked how the venture works with hypotheses, the co-founder says:

"Usually we try to run an MVP when we have a hypothesis, to get some feedback."

Note that the co-founder of Alpha 28 has felt that MVPs are not right to use. This is not in alignment with the lean startup methodology (Ries, 2011; Eisenmann et al., 2013). When asked if they use MVP testing, the co-founder says:

"I've used MVPs in other contexts, when they have been more needed. We don't do it quite as much here, we haven't felt that it feels as right as the way we're doing it right now"

Note that Bravo 19 has used prototypes (unfinished/undeveloped products) in order to test the solution. This is an example of using MVP testing described in the lean startup methodology (Ries, 2011; Eisenmann et al., 2013). When asked what types of tests the venture has used, the co-founder says:

"We did classic AB-testing, created two different websites and could compare. Also two different papers with different functions. We also created some 3D printed prototypes as MVPs. Also some powerpoint-presentations, ranking the functionality. But it was harder doing the MVP-tests [due to being within medicine/health care]"

3.6.1.21 Non-structured discussions regarding business model changes

Note that Bravo 32 have regular meetings with their board where they discuss changes to their business model. However, also note that the time it takes to get test results varies too much for the team members to have regular meetings. Nevertheless, what is discussed in these meetings is aligned with Blank (2007) and Ries (2011), who mean that it is important to in a structured way reflect over whether to pivot, persevere or perish. When asked how often they discuss changes to the business model, the co-founder says:

"We have meetings really often on if we should change our business model. Our venture is built on having hypothesis for things, there's a lot of work to it and to try to drive revenues. It's harder than I thought. If you hit the wall when an idea doesn't work, things get boring and you have to take control of the situation and look over it. So it [meetings to change business model] happens all the time. [...] Regular,

scheduled with our board but otherwise, for us, it's something that happens when the tests from the hypotheses show up; you never know when you get results"

Note that it is Echo 51's product development that steers the business model changes. This is not in alignment with Ries (2011) and Eisenmann et al. (2013), who mean that it should be the other way around. When asked if they have meetings scheduled to discuss changes to the business model, the business developer states:

"The discussions [about changes to the business model] come up as a result of the product development but it's indirect that you realize that that [changes to business model] is what is discussed, and usually the discussions aren't planned"

Note that Charlie 24 has a scheduled forum for discussing changes to their business model. This is in alignment with Ries (2011). When asked about how often they discuss changes to their business model, the co-founder says:

"We do it at board meetings, four times a year. We then say "This was what we decided last time" and follow up on the effects things have had. [...] like right now, our business model is that we use distributors for sales. But we're thinking of removing that since we've seen that our X distributor isn't working the way we've thought they would"

Note that the founder of Echo 49 implies that the venture will start to schedule meetings to discuss changes to the business model in the future. This would be in alignment with Ries (2011). When asked how often they discuss changes to the business model, the founder states:

"We talk about it every week almost. We haven't got meetings scheduled specifically for discussing that, but we will probably do so in the future"

Note that Alpha 27 does not plan meetings to discuss changes to the business model; many things are changed on a day-to-day basis due to "fire-fighting". For the early phase that Alpha 27 is in, scheduling even weekly meetings can be inefficient since the changes have to be addressed acutely, before the meetings. When asked how often they have meetings where they discuss changes to the business model, the co-founder says:

"Almost all the time. We are in such an early phase, and have extremely many meetings every week. There's a lot of new information. Almost everyday things take a new turn. We need to discuss everything that comes in"

3.6.1.22 Usually ratios as key metrics

Croll and Yoskovitz (2013) mean that vanity metrics should be avoided and mean that metrics used should tell how and if the customers are using the product (Ries, 2011). Note that metrics used by Alpha 7 do not indicate the engagement level among customers and can be considered vanity metrics (see section 2.23). This is directly contradicting Croll and Yoskovitz (2013) and Ries (2011). When asked how they work with metrics, the co-founder says:

"Our key metrics is cash flow positivity."

"How many clicks per month we get, how many visitors per month, how many from Google"

Note that the main metrics for Bravo 32 measure the users' engagement rate. This is in alignment with the lean startup methodology (Ries, 2011; Croll and Yoskovitz, 2013). The co-founder states:

"Big metrics are how many that actually finish, that actually use our platform. It doesn't matter how many visitors we have on the site per month, it's not relevant if the users don't generate money. And also how much it costs on average [to acquire customers]?"

Note that the main metrics for Charlie 11 measure users' and buyers' engagement rate (the persons using the products are not the same as the ones paying for it). This is in alignment with Ries (2011) and Croll and Yoskovitz (2013). When asked how they use metrics, the co-founder says:

"We have two important metrics, one of them is a bit more important. We measure more things but we try not to look at too many, then you get vanity metrics and those don't mean anything. [...] We look at how users actually follow up and use our tool after it has been introduced to them. [...] And the second is engagement, how many used our tool during a certain month."

Note that the main metrics for Echo 49 are rates. This is in alignment with Ries (2011) and Croll and Yoskovitz (2013). When asked about their tests and how the venture grows, the founder states:

"We look at the conversion rates for different things. We measure everything"

"A very important KPI is the CAC/CLV. If you can get back the acquisition cost within a year, then you have a good deal. We look at that a lot"

Note that Charlie 2 measures customer engagement by looking at how big part of the customers' advertising is done using the Charlie 2 solution. This is both a ratio and engagement metric, hence it is in alignment with both Ries (2011) and Croll and Yoskovitz (2013). When asked about what metrics the venture looks at, the co-founder says:

"We look at order ratio. To what extent are they [customers] using us for the advertising they're doing?"

Note that Alpha 28 uses ratios in order to evaluate if it has succeeded with its goals. Using ratios is in alignment with Ries (2011) and Croll and Yoskovitz (2013). When asked what goals the venture has, the co-founder states:

"We want more than 50 % of all X [business idea] will be accepted"

Note that Charlie 24 is using ratios as metrics. This is in alignment with Ries (2011) and Croll and Yoskovitz (2013). When asked what metrics they use, the co-founder states:

"We try to use activity driven KPIs rather than just cold numbers [...] We break it down to weeks and see how much we do per week"

3.6.1.23 Not always actionable metrics

Note that Bravo 32 can take clear actions on the metrics it uses. This is an example of the cause-and-effect mentioned by Ries (2011) and Croll and Yoskovitz (2013). When asked if the venture can change its behavior based on the metrics, the co-founder says:

"If our CAC [customer acquisition costs] soars, what happens? We try to fix it. We can be reactive when something's happened."

"Yes, we can look into our numbers and see why the cost soared"

Note that Echo 51 historically has gathered data in an unstructured way, but that is now becoming aware of using actionable metrics. This can be considered to be in alignment with Ries (2011) and Croll and Yoskovitz (2013). When asked how the venture works with metrics and why these are the right metrics to use, the business developer states:

"We've used a lot of vanity metrics and haven't at all been good with the usage of KPIs. We gather a lot of data but don't really use it, you never know when you might need it. But when it comes to metrics we use quite some vanity metrics such as clicks on the website or likes on Facebook or similar. We haven't really had purposes behind our metrics. It was first when X [other business developer] came in that s/he started questioning things and pointing out that the metrics were wrong, that we didn't get anything from them and that we should use metrics which show effects clearly"

Further, when asked if the team members have been able to change their behaviors based on the metrics, the business developer says:

"Well, not really. Since we've used vanity metrics.. Or I mean, we've thought we could change. We haven't been aware of what metric leads to what action"

Note that the co-founder of Echo 49 implies that it is tough that the venture cannot see clear effects on churn rate due to its revenue model. This implies that the co-founder finds it important to see cause-and-effects, which would be in alignment with Ries (2011) and Croll and Yoskovitz (2013). The founder states:

"We have a transactional model, which makes it hard to measure why a customer leaves. It is hard for a transactional model to measure when someone leaves."

Further, note that the venture is using metrics where the cause-and-effect is clearly seen. This is in alignment with Ries (2011) and Croll and Yoskovitz (2013). The founder states:

"Both sales and marketing work with customer acquisition, how we should reach customers and how we should be relevant. We look a lot on the data there. How well different campaigns convert, how well follow-up emails convert. [...] We send different texts to customers and see the conversion rates there. [...] We right now want to see if it is time or money that converts customers. We are looking at if the customers want to lower the time with X procent or lower the cost with X procent. What is it that triggers them? We use two separate ads for this"

Note that the co-founder of Charlie 11 finds it hard that it cannot see clear cause-and-effect due to the lagging metrics. This implies that the co-founder is agreeing with Ries (2011) and Croll and Yoskovitz (2013) that metrics should be actionable, i.e. seeing clear cause-and-effect. When asked if the metrics make the team members change, the co-founder states:

"[...] it can have an extreme lag. Which is hard. We always try to influence our engagement. It could have been better but there are other components that make this harder to measure, for example that the customers can use our solution later than they are "scheduled" to. So let's say they are supposed to use it week X but it gets delayed by three weeks. This can mean that we during this time make changes to our solution or to the email we send out, which aims to increase the engagement rate in general. But the more lag we have, the harder it gets to see what is affecting our engagement rate, right? It gets hard to see if that email really changed anything, because during those five weeks it takes the customers to use it, we might have done so many things that can affect it as well. I mean, lag in general is really bad [...]"

3.6.1.24 Not measuring customer insights

Note that the co-founder of Bravo 19 believes the venture is using learning milestones. This is in alignment with Ries (2011) who promotes using validated learnings as a productivity measurement. When asked if the venture uses learning milestones, s/he states:

"Co-founder - I don't know that concept.

Author - [Explains the concept as defined by Ries (2011)]

Co-founder - I think that applies to us, since we are looking for validated learnings."

Note that Bravo 32 believes it would be beneficial for them to use learning milestones. This would be in alignment with Ries (2011), who proposes that startups use the number of validated learnings as a productivity measure. When asked if the venture uses learning milestones, the co-founder states:

"No we don't. But that would make sense to do"

Note Echo 51 has not appreciated the use of learnings. This is contradicting the lean startup methodology (Ries, 2011). When asked if the venture uses learning milestones, the business developer states:

"No, but when me and X [other business developer] joined, the knowledge about what learnings are have spread in the venture. But this hasn't been used as milestones, or even been that appreciated"

Note that the co-founder of Alpha 7 implies that the team members looked at what validated learnings they had got. This could be interpreted as using learning milestones (Ries, 2011). When the co-founder of Alpha 7 is asked if the venture uses learning milestones, s/he states:

"We had weekly meetings in a previous venture, and like, checked. For example, we one month focused on interviews. And then we wanted to check what we had learned from them. So yes, we probably have used it but never explicitly called it anything"

Note that Charlie 11 implies the venture has used learning milestones as productivity measure before. This would be in alignment with the Ries (2011). When asked how the venture measures productivity, the co-founder states:

"We have time limitations on our hypothesis, like "by this time we will look at this hypothesis or experiment to see how it's been going" [...] not that much now. We did it more in the beginning"

Note that Charlie 2 is using product development as productivity measure. This is directly contradicting the lean startup methodology (Ries, 2011). When asked how they measure internal productivity, the co-founder states:

"On the developer side we look at how many features are done"

3.6.1.25 Splitting customers down to related groups

Note that Bravo 32 uses cohorts. This is in alignment with Ries (2011) who means that cohorts make the data more comprehensible. When asked if the venture breaks down the customers into related groups, the co-founder says:

"It's super important for us to have cohorts for different types of users. We buy a lot of traffic through Adword, to see what type of keywords a user has searched for and what site they end up on"

Note that the co-founder of Charlie 24 is dissatisfied with the venture not being able to use cohorts. This is in alignment with the lean startup methodology (Ries, 2011). When asked if the venture breaks down the customers into related groups, the co-founder says:

"90 % of our revenues come from stores. We sell to a distributor, selling to these chains. We never get any hard numbers on how we've sold, things go very slow and we have a lot of lag. We never know either if the customers buys one, two or three units of our product. We can see that in our webshop. [...] It's not applicable to split customers into cohorts when working with distributors and physical stores."

Note that Echo 49 also breaks down the customers into cohorts. This is recommended by Ries (2011). When asked if the venture breaks down the customers into related groups, the founder says:

"Yes, we do use cohorts. We define it as when in time that they registered. And then we know for every customer the source of how they came to our platform, if it was through Facebook ads, if it's through email addresses etc."

Note that Charlie 2 uses total numbers instead of cohorts. This is contradicting the lean startup methodology (Ries, 2011). When asked if the venture breaks down the customers into related groups, the co-founder says:

"We react more to actual numbers. We don't look at the cohorts numbers"

Note that Bravo 19 means that it is unfortunate that the venture is not using cohorts. This is in alignment with Ries (2011). When asked if the venture breaks down the customers into related groups, the co-founder says:

"Unfortunately we haven't had it that easy and haven't been able to do cohorts splits and apply it."

3.6.2 Theories linked to the IPLSM framework

The + and - signs mark that there is a positive respectively negative match between a theory and an interviewed venture. See section 3.2 for further descriptions of what a match is. The 0 marks no match between a theory and an interviewee. The findings above are further summarized in table 3 below. Note that in order to facilitate readability (Easterby-Smith et al.,

2015), the individual theories are not stated in the table. Instead, the theory groups are matched to the interviews of the startups.

Theory group	A7	C11	B19	E49	A27	B32	A28	C24	E51	C2	#Matches
1. Complexity	0	0	+	0	0	+	0	+	+	0	4
2. Diversity	-	-	+	0	0	0	0	+	-	0	5
3. Motivation	+	+	0	+	0	0	+	+	+	+	7
4. Expectations	0	+	+	+	+	+	0	0	0	+	6
5. Development	+	+	+	-	0	0	+	+	0	+	7
6. Unity	+	0	+	+	+	+	+	0	0	+	7
7. Common	+	0	+	0	+	+	+	0	-	0	6
8. Equality	0	0	-	+	0	+	0	-	-	-	6
9. Safety	+	0	+	+	+	+	+	+	+	+	9
10. Industrial	0	0	-	+	+	-	+	0	+	0	6
11. Role	+	-	0	0	+	+	+	0	0	+	6
12. Setbacks	+	+	+	0	0	0	0	+	+	0	5
13. Network	+	0	+	+	+	+	+	+	0	+	8
14. Hypotheses	0	-	+	-	+	+	0	+	-	-	8
15. Perfect fit	+	+	0	0	0	0	0	0	0	+	3
16. Customers	+	+	0	0	+	+	0	+	0	+	6
17. BMC	-	-	+	0	+	-	-	-	0	0	7
18. Manually	+	+	0	0	0	+	+	0	0	+	5
19. Crucial first	+	+	+	0	0	0	0	+	0	0	4
20. Efficient tests	+	+	+	+	0	+	-	0	-	+	8
21. Meetings	0	0	0	-	-	+	0	+	-	0	5
22. Ratios	-	+	0	+	0	+	+	+	0	+	7
23. Actionable	0	-	0	+	0	+	0	0	-	0	4
24. Cohorts	+	-	+	0	0	-	0	0	-	-	6
25. Productivity	0	0	-	+	0	+	0	-	0	-	5

Table 3. Matches between the theory group in chapter 2 and the interviewed startups. Note that the theory groups' names have been shortened. Further note that the acronyms have been used for the startups in order to make the table more readable.

3.7 Survey

A web-based self-completion questionnaire, i.e. an online survey, was sent out to gather data in order to answer to the research question. The aim was to create a survey which would take the respondents less than 15 minutes to respond to. The email template used for reaching out to the ventures can be found in appendix 3 together with the link to the survey.

3.7.1 Positive/negative aspects with surveys

Easterby-Smith et al. (2015) mean that surveys are good in order to collect data regarding the opinions and behaviors of a large number of people. The main advantages with surveys are that the cost per respondent is low, especially when done online (or at least when compared with methods requiring face-to-face contact), and that it is possible to reach out to a large number of people. However, a downside is that the response rates are usually low and, since there is no one there to explain, the questions can be misunderstood, hence not giving fair results (Easterby-Smith et al., 2015). However, this can be mitigated to some extent in web-based surveys, as it is possible to include pop-up instructions and drop-down boxes explaining parts that are more difficult to understand; this was done in this survey to clarify some points for the respondents. Another positive aspect of using web-based surveys is that data can be directly downloaded; the data in this study was directly imported into Excel, decreasing the risk of transcription errors and the cost of data entry (Easterby-Smith et al., 2015).

3.7.2 Sampling of startups

The sample responding to the survey consisted of startups related to a renowned Swedish startup accelerator (RSSA). The sample also consisted of some of the interviewee startups. The sample strategy chosen was a mix of convenience sampling with theory-guided sampling (Easterby-Smith et al., 2015); being recognized as a startup was the only theory criteria. Since most of the ventures were part of the RSSA's startup accelerator program, and since they were furthermore proposed as potential participants to the study by Y (leading management position at RSSA), it was assumed that the ventures were startups. This is further discussed in delimitations 3.10. Furthermore, it was deemed important to use the relationship to Y, since the fifteen minute long surveys can be considered an effort for startups to "sacrifice" for an unknown person; it was deemed necessary having Y onboard since her/his network could be of great value. Furthermore, being supported by Y gave the study more trust and credibility as Y is a heavy player on the Swedish startup scene (Easterby-Smith et al., 2015); her/his name was thus included in the letter emailed to the potential respondents (see appendix 3). This is believed to have increased the participation rate.

The sample startups' different sectors of working is considered to further strengthen the findings, since the startups are representing a wide array of the major startup fields. This is illustrated in table 4 below.

Name	Sector(s)	Age
Charlie 1	Bio technology, Data analytics, Health and wellness, Information technology, Platform	3-5 years
Charlie 2	Advertising, Information technology, Social	3-5 years
Bravo 3	Medicine	1-3 years
Delta 4	Clean technology	>5 years
Charlie 5	Clean technology, Energy	3-5 years
Bravo 6	Data analytics, Financial, Information technology	1-3 years
Alpha 7	Advertising	0-1 years
Charlie 8	Clean technology	3-5 years
Alpha 9	Financial	0-1 years
Alpha 9	Data analytics, Financial	0-1 years
Delta 10	Data analytics, Energy, software	>5 years
Charlie 11	Corporate training	3-5 years
Charlie 11	Education	3-5 years
Charlie 12	Logistics, Platform	3-5 years
Charlie 13	Health and wellness, Information technology	3-5 years
Bravo 14	Green-Tech	1-3 years
Bravo 14	Green tech	1-3 years
Bravo 15	Financial	1-3 years
Bravo 16	Nanotechnology	1-3 years
Delta 17	Manufacturing	>5 years
Bravo 18	Information technology, Security	1-3 years
Bravo 19	Health and wellness, Information technology, Medicine	1-3 years

Delta 20	Bio technology	>5 years
Alpha 21	hardware	0-1 years
Charlie 22	Clean technology, Energy, Industrial IoT	3-5 years
Delta 23	Information technology	>5 years
Charlie 24	Retail	3-5 years
Charlie 24	Health and wellness, Life style	3-5 years
Bravo 25	E-commerce, Health and wellness, Life style	1-3 years
Bravo 26	Bio technology, Clean technology, Energy, Manufacturing	1-3 years
Alpha 27	Logistics, waste management	0-1 years
Alpha 28	Information technology	0-1 years
Alpha 28	Social	0-1 years
Bravo 29	Data analytics, Health and wellness	1-3 years
Delta 30	Financial	>5 years
Charlie 31	Information technology	3-5 years
Bravo 32	Platform, real estate	1-3 years
Bravo 32	Marketplace for Commercial Real Estate Leases	1-3 years
Bravo 32	Marketing/sales	1-3 years
Bravo 32	Real estate	1-3 years
Bravo 33	Clean technology, Information technology	1-3 years
Alpha 34	Electronics	0-1 years

Table 4. The sectors of operation and ages of all startups.

3.7.3 Design of statements

Once the literature theories were deemed important enough to be a part of the IPLSM framework (see table 3), statements were developed to represent the theories; this was necessary since the theories were to be measured through a survey, which in alignment with the recommendations of Easterby-Smith et al. (2015) had to be as short and simple as possible, making it impossible to try the full theories at once. The statements hence had to capture the essence of the theories in the literature while still being simple enough for everyone to understand them. Further on, the related statements (covering same topics) were grouped together, which is recommended by Easterby-Smith et al. (2015) to do in order to facilitate for the respondents to answer to the survey. The groups are presented in table 5.

Furthermore, jargon and colloquial language were excluded in the statements, in order to avoid that only some respondents, and not all, would know the true meaning of the statements. The statements were also made as simple as possible, in order to ensure that everyone would understand them (Easterby-Smith et al., 2015). The aim was furthermore that every statement only expressed one idea, to not confuse the respondents (Easterby-Smith et al., 2015). Easterby-Smith et al. (2015) recommends to avoid the use of negative words, as they can confuse the respondents (e.g. if the word “no” or “not” is added to a question, rating it the lowest grade would mean the response is positive). The statements were also shaped so they would not be leading the respondents to any specific answers, in order to not bias the data (Easterby-Smith et al., 2015).

The process of designing the statements was iterative, with the statements going through several feedback loops with experienced survey makers. This was done in order to minimize the risks of misunderstandings or language errors, and to ensure that the survey took less

than 15 minutes to be completed. It should be noted that this was a limitation as some statements had to be left out or merged, in order to make the time limit. However, the statements merged were touching the same topics and hence deemed to be compatible.

3.7.4 Motivating the statements

The headlines in this section represent the statements used in the survey. The relevant literature is mentioned and the statement design is further motivated.

3.7.4.1 Our solution needs many different fields of expertise in order to be completed

The theories tested in this statement are the ones regarding complexity and innovation, proposed by Hammond et al. (2011), Denti and Hemlin (2012) and Somech and Drach-Zahavy (2013).

The interviewees imply that their solutions are complex since there are many different fields that are dependent on each other, needed for the solution to be completed. However, the persons testing the statements did not understand the definition of the word “complex” (“consisting of many different and connected parts” is the first proposal on Google (2017)). An assumption was that the respondents would also misunderstand the word. The word thus had to be removed from the statement in order to not bias the survey responses.

3.7.4.2 Our team has a great diversity regarding education, background and culture

The theories tested in this statements are the ones regarding diversity, proposed by Kakarika (2013), Klein and Harrison (2007) and Somech and Drach-Zahavy (2013).

Interviewees imply that it is important to have team members with different backgrounds. Kakarika (2013) mentions diversity of opinion and diversity of expertise as important. Ideally, all the different types of diversity would be tested in separate statements (Easterby-Smith et al., 2015) but the constraint of having a short and simple survey (Easterby-Smith et al., 2015) did not allow for this. Hence, it can be argued that this statement is testing more than one idea, which contradicts Easterby-Smith et al. (2015) and which can be considered a source of error. This is further discussed in 3.8.3.

It was assumed that the words “culture” and “background” captured the diversity of opinion (Kakarika, 2013) and that “education” would capture the diversity of expertise. Furthermore, the word “background” can be perceived interchangeably and can be interpreted as “functional background” as well, capturing diversity of expertise. However, the statement does not allow to distinguish how the respondent interpreted it, which is further discussed in section 3.8.1.

3.7.4.3 Our team members are highly motivated

The theories tested with this statement were the ones regarding motivation and innovation proposed by Hammond et al. (2011), Denti and Hemlin (2016) and Denti (2013).

Many interviewees mention that their team members are very motivated. This is exemplified in many different ways in section 3.6.1.3. The statement captures the essence of the theories; if the team members are very motivated, they have more of the intrinsic force needed to overcome obstacles, leading to more creative and innovative performances.

3.7.4.4 Our team members know what is expected from them in their work

The theories tested with this statement are the ones regarding expectations proposed by Denti (2012) and Hammond et al. (2011).

Many of the interviewees imply that their team members are aware of what their responsibilities are, and also what is expected from them in their innovative work. However, when trying this statement with the test persons, there were signs of that the wording “innovative work” could confuse the respondents. Hence, “innovative work” was changed to just “work” as startups’ work arguably is innovative itself.

3.7.4.5 Our team members develop their individual capabilities through different measures

The theories tested with this statement are the ones regarding human capital proposed by Evans-Raoul (2013) and Holmberg-Wright and Hribar (2016).

Many of the interviewees find it important that their team members are developing their skills in different ways. This is in alignment with the literature who highlights the importance of developing skills (technical, interpersonal etc.), rather than specifying the process of doing it. The statement through the wording “through different measures” enables the respondents cover other ways of acquiring knowledge than podcasts, books or latest research (which was proposed in the interviews), and could comprise of courses, coaching, etc.

3.7.4.6 Our team members have a feeling of unity with the other members

The theories tested through this are the ones regarding feeling “togetherness” with the team (Denti, 2011), positive relationships with coworkers (Hammond et al., 2011) and high level of intra-group safety (West, 2002). The two last theories were interpreted to be related to “togetherness”; i.e. having positive relationships with coworkers can be a sign of this “togetherness” feeling, as well as having a high intra-group safety can be a sign of the said “togetherness”. Further, almost all interviewees mean that it is important that the team members are close to each other and feel like a group.

Note that when testing the statement on the test persons, the word “togetherness” was misunderstood. It was thus changed to “unity”, which is a synonym and easier to understand.

3.7.4.7 Our team members have common goals with the future of the venture

The theories tested through this statement were the ones regarding a common vision within a group (Hülshager et al., 2009), innovative actions taken by team members if they identify with the goals and values of the venture (Morianio et al., (2014) and lastly venture growth through mobilizing team members’ self-identity with the venture’s purpose (Yitshaki, 2012). The theories proposed by Moriano et al. (2014) were interpreted to be related with the theories of Hülshager et al. (2009) and Yitshaki (2012); having team members that are aligned and identifying with the venture’s goals and vision can lead to venture growth through innovative actions taken by the team members.

Note that most interviewees highlight the importance of having common goals, by for instance giving examples of how negative it has been when team members have not had common goals.

Further note that the statement captures both the essence of the literature and the essence the interviewees opinions.

3.7.4.8 Our opinions in discussions are valued equally much regardless of whom they come from

The theories tested with this statement were the ones regarding power disparity (Kakarika, 2013), innovative cultures in entrepreneurial ventures (Bayraktar, 2014) and team inefficiency (Gabarro and Harlan, 1986). These were interpreted to be related; a low power disparity indicates that everyone has equally much influence, which can lead to more creative thinking since the venture can avoid groupthink.

Note that many interviewees somehow contradict the literature (see section 3.6) and that many interviewees also believe it is important that everyone is listened to equally much.

The statement hence needed to test if everyone has the same possibility to influence others in the venture. The wording “in discussions” was added since there was a risk that the respondents would not understand which opinions the statement was asking for. The aim of the author was that by adding “in discussions”, it would be implicit that the opinions asked for were related to the venture’s decision-taking.

3.7.4.9 Our atmosphere allows team members to try and fail

The theories tested here were the ones regarding innovation and safe psychosocial climate (West, 2002; Hammond et al., 2011; Somech and Drach-Zahavy, 2013) and tolerating risk taking (Denti, 2012). It was interpreted that these theories were intertwined. Since risk is deep-rooted in innovation, team members should be allowed to fail. A safe psychosocial climate lets team members take risks, and fail.

Note that almost all interviewees mean that it is important for the venture to try new, innovative things and possibly fail trying.

The statement captures both the essence of the literature and the interviewees. However, the wording “safe psychosocial climate” was changed to “atmosphere” since it was perceived as a risk of confusing the respondents. Further note that a wording such as “We allow team members to try or fail” (or similar) was avoided since this risked confusing the respondents; the test persons perceived this type of phrasing as excluding the team aspect, i.e. that a respondent would only look at if s/he herself/himself allows others to try and fail, and not look at how the venture reacts overall.

3.7.4.10 We have industrial experience, gained before we joined the venture

The theories tested with this statement were the ones regarding how founding teams’ prior industry experience affects sales and survival increase (Delmar and Shane, 2006), productivity and profitability as a result of founders’ prior experience (Castrogiovanni and Ribeiro, 2012) and overall venture performance and growth (Lee and Tsang, 2001; Song et al., 2008).

Note that many founders had some prior industrial experience, whereas some believed that not having industrial knowledge actually has been good for the venture.

The statement captures both the essence of the literature and interviewees. The wording “gained before we joined the venture” was added in order to ensure that respondents understood that it was the experiences before the venture that was sought after. This was

important since some startups have been in an industry for several years, hence being arguably experienced in that field.

3.7.4.11 We have role specific experience, gained before we joined the venture

The theories tested with this statement were the ones regarding the effect of education or tenure on the innovative performance (Amabile, 1983; Perkins, 1986; Oldham and Cummings, 1996; Kark and Carmeli, 2009; Tierney and Farmer, 2004). Further, this statement could also be used in order to test the findings of Hammond et al. (2011), who do not find that education and tenure are consistently related to creativity and performance.

Note that most interviewees mean that they had little or no role specific knowledge before starting the venture. The role specific knowledge hence had to be either learned or recruited.

The statement captures both the essence of the literature and the interviewees. In order to shorten the statement, the word “experience” was used instead of “education or tenure”.

3.7.4.12 We have dealt with entrepreneurial failure at any time before the venture

The theories tested in this statement were the ones regarding benefiting from the learnings of entrepreneurial failure (McGrath, 1999; Gabrielsson and Politis, 2009) and how this is facilitated through a positive attitude towards failure (Gabrielsson and Politis, 2009).

Note that many of the interviewees highlight the importance of having team members that can handle failure and setbacks in a good way.

The statement examines if the team members have learned how to cope with entrepreneurial failure and setbacks, before joining the venture. There is thus a risk that the statement excludes the people that are good at handling failures and setbacks, but that have not experienced either in the past. Ideally, the statement would be split in two parts: one part testing if people can handle failure and setbacks, and the other one testing if they have encountered this before. However, due to the constraint of keeping the survey as short as possible, this could not be done.

3.7.4.13 We get informal advice from people outside our team/board/investors on how to run our venture

This statement tests the theories regarding stimulation of workplace innovation (Hülshager et al., 2009), compensating for a lack of entrepreneurial orientation of founders (Balodi and Prabhu, 2014) and importance of networking (Hsieh and Kelley, 2016). It was interpreted that what these theories all had in common was that getting information from people in the networks is beneficial for innovative teams. It is understood that the people in the networks are not working on the same project.

Note that almost all interviewees mean that they get advice from people in their network that are beneficial for them in order to run their venture.

The statement captures the essence of both the literature and the interviewees. It aims to test if the startups get input from people that are not working with the venture, and that do not have any interest in the venture. The main stakeholders identified for startups were, except the founders and the team itself, its board and its investors. Hence, advice from people not being any of the identified stakeholders, was asked for.

3.7.4.14 The development of our value proposition is driven by our assumptions about our customers or business model

This statement tests the theories of Blank (2007), Ries (2011) and Eisenmann et al. (2013), who mean that startups should not be doing traditional product development. Instead, they should, through a hypothesis-driven approach, develop the whole business model (Ries, 2011; Eisenmann et al., 2013) with their customers in the centre; it is the assumptions about the customers or the whole business model that should trigger the product development (Blank, 2007).

As seen in section 3.6.1.14, there are many interviewees directly contradicting the literature.

The aim of this statement is to see if startups are more driven by product development or by customer development. Rating the statement high implies that the customer development or LSM approach is used; rating the statement low implies that the traditional product development approach is used. The statement hence captures the essence of both the literature and the interviewees.

3.7.4.15 Our highest goal is, or has been, to adjust our value proposition perfectly to the market

This statement aims to test the product-market fit theory group (Blank, 2007; Ries, 2011; Eisenmann et al. 2013). It states that the startups should scale their solution once they find the product-market fit, i.e. in a profitable way meeting the needs of the targeted market's customers. Further, it is interpreted that the literature is recommending startups to pivot until they find the product-market fit. Furthermore, since the LSM approach focuses on the whole offering and not just the product, the literature was interpreted to recommend to find a perfect fit between the offering and the market.

Note that some of the interviewees in 3.6.1.15 imply that they want to change their offering, or have changed their offering, in order to fit the targeted customers.

This statement captures the essence of the literature. However, it shall be noted that it had to be rewritten due to not trying to nudge the respondents in any direction. The phrasing "Our highest goal is, or has been [...]" was used in order to ensure that all startups, even the ones that consider themselves to have found the perfect product-market fit, were able to respond to the statement. The part of the statement saying "[...] to adjust our value proposition perfectly to the market" was used in order to avoid using the word "pivot", which could possibly nudge respondents. Furthermore, "value proposition" instead of "offering" as it was assumed to be more understandable to the respondents than "offering".

3.7.4.16 We use real customers' behaviors as guidance for decision making

This statement tests if the respondents actually "go outside the building" and meet customers as proposed by Blank (2007), Ries (2011), Eisenmann et al. (2013) and Constable (2014). Furthermore, it tests if startups use their customers' behavior as a foundation for decision making, e.g. by trusting what the customers do (buying a prototype, for instance) rather than trusting what they say (that the prototype looks cool, for instance).

Note that most interviewees find "going outside the building" important, and work accordingly.

The statement captures the essence of both the literature and the interviewees. The word “real” was added in order to strengthen that it is paying customers’ opinions that weigh the most. It is further understood that the word “behaviors” means the reactions of the customer.

3.7.4.17 We have our business model visible in our office

This statement tests if the startups actively are working with any type of business model canvas (Osterwalder, 2009; Ries, 2011; Blank and Dorf, 2012). The literature recommends to use a canvas of some sort in order to get a better overview of their business model and easier see what needs to change. Blank and Dorf (2012) propose that founders create a new canvas visualizing the changes every time a change has been made.

Note that most interviewees do not actively use the business model today; this is in contradiction to the literature.

The essence of proposing that founders ought to create new canvases every time a change is done, was interpreted as that there should always be an updated business model in the venture’s office. This supports the part “We have a business model [...]” in the statement. Further, the word “visible” was added since it was interpreted that in order to benefit from getting a better overview of the business model and easier seeing what needs to change, the business model needs to be visible at all time. It was also assumed that having a physical version of the business model was a sign of actively working with it; having it online does not to the same degree imply that it is being actively used.

3.7.4.18 We usually start doing things manually that we later can automate

The statement tests if startups avoid developing features/solutions until they see that there is a demand for that feature/solution (Ries, 2011; Graham, 2013). This can be done through various “efficient” tests; the common factor is that things are done manually initially.

Note that most startups to some degree have done things manually and later on develop the automated version.

The essence of the theory was interpreted to be the mindset of not wanting to develop any feature/solution until there is a clear demand for it, and then develop an automated solution; the statement is therefore not including *how* the ventures have done this. It rather focuses on that they have done it. However, it can be assumed that not all ventures are aware of that this way of working is considered more “efficient”. Nevertheless, adding onto the sentence with “[...] *in order to work efficiently*” was perceived as non value-adding to the statement as the outcome would be the same; a venture can work efficiently even though it is not aware of that it is efficient.

3.7.4.19 We test our riskiest assumptions about our business model first

This statement tests if the startups first try their *leap-of-faith* assumptions, i.e. the crucial assumptions that everything depends on (Ries, 2011; Eisenmann et al., 2013). Ries (2011) means that this is important since a startup might be good at executing things which are based on the completely wrong assumptions and means that this is a waste of resources.

Note that many interviewees have tested their important assumptions first.

The statement captures the essence of both the theory and the interviewees.

3.7.4.20 We aim to find insights regarding our business model as fast or cheap as possible

This statement tests if the startups work with efficient testing to validate or invalidate hypotheses as proposed by Ries (2011), Savoia (2011) and Eisenmann et al. (2013), e.g. MVP, prototyping, Wizard of Oz, AB-testing or Smoke tests.

Note that many interviewees work with efficient tests, or have a mentality of testing things efficiently.

The literature was interpreted to primarily focus on the importance of having an efficient mentality when testing, i.e. testing things as fast and cheap as possible. The tests per se were not deemed important to try, as these are results of having an efficient mentality. Thus, the statement captures the essence of the literature. However, in order to not nudge the respondents to associate it with the LSM nor exclude the ones that are not aware of the jargon, words such as “hypothesis” or “MVP” were excluded from the statement.

3.7.4.21 We have regular meetings scheduled where we discuss changes to our business model

The statement tests if startups on a regular basis discuss whether they should pivot or persevere, as proposed by Ries (2011) and Blank (2007). This is important to not postpone the decision-making of making pivots, which is easily done since it is usually emotionally loaded (2011).

Note that many interviewees do not have scheduled meetings where they discuss changes to their business model; they discuss changes to the business model once they arise. This is not in alignment with the literature.

The statement captures the essence of the literature. However, in order to not nudge the respondents to associate it with the LSM nor exclude the ones that are not aware of the jargon, words such as “pivot” or “persevere” were avoided. Instead, the phrasing “[...] changes to our business model” was used.

3.7.4.22 Our key metrics are ratios

This statement tests if startups use ratios or rates as key metrics (Ries, 2011; Croll and Yoskovitz, 2013) as these are easier to act on and are by nature comparative.

Note that most interviewees have important metrics that are rates.

The statement captures the essence of the literature.

3.7.4.23 Our aim is to only measure things which we can take action on

This statement tests if the startups only aim to use actionable metrics, i.e. metrics which have a clear cause-and-effect (Ries, 2011; Croll and Yoskovitz, 2013). This type of metrics facilitates for startups to change their behavior (Ries, 2013).

Note that many interviewees out of various reasons use metrics that are not actionable. This is not in alignment with the LSM.

3.7.4.24 Our internal productivity is measured in how many insights we get about our business model and not how many hours of work we have done

This statement tests if startups use validated learnings of their business model as a measure of productivity (Ries, 2011). Ries (2011) recommends this as opposed to using other metrics, such as hours worked or features built.

Note that some interviewees believed measuring productivity this way to be important or have done it, whereas others have contradicted it or not appreciated it.

The statement captures the essence of both the literature and the interviewees. However, the words “learning milestones” or “validated learnings” could not be used since they risked to nudge the respondents. The sentence “and not how many hours of work we have done” was added in order to ensure that the respondents understood that these types of metrics were not sought after.

3.7.4.25 Our customers are broken down into related groups instead of looking at them in a cumulative way

This statement tests if startups use metrics where the customers are split into cohorts as proposed by Ries (2011).

Note that many interviewees find using cohorts important.

The statement captures the essence of the literature. However, the word “cohort” was not used since this risked to nudge the respondents and also in order to ensure that people who do not know the jargon would understand the statement. Instead, “related groups” was used to replace “cohort”. This can be a source of error since it might not have been completely understood by the startups what a related group is. In order to clarify this, the sentence “instead of looking at them in a cumulative way” was added to the statement.

3.7.4.26 Grouping of statements

The statements were furthermore structured in order to facilitate for the respondents. They were grouped together based on what topics they touched, see table 5 below.

Group	Statements
Our people	<ul style="list-style-type: none">• Our solution needs many different fields of expertise in order to be completed• Our team has a great diversity regarding education, background and culture• Our team members are highly motivated• Our team members know what is expected from them in their work• Our team members develop their individual capabilities through different measures
Team spirit	<ul style="list-style-type: none">• Our team members have a feeling of unity with the other members• Our team members have common goals with the future of the venture• Our opinions in discussions are valued equally much regardless of whom they come from• Our atmosphere allows team members to try and fail
Experience	<ul style="list-style-type: none">• We have industrial experience, gained before we joined the venture• We have role specific experience, gained before we joined the venture

	<ul style="list-style-type: none"> • We have dealt with entrepreneurial failure at any time before the venture • We get informal advice* from people outside our team/board/investors on how to run our venture
Development drivers	<ul style="list-style-type: none"> • The development of our value proposition is driven by our assumptions about our customers or business model • Our highest goal is, or has been, to adjust our value proposition perfectly to the market • We use real customers' behaviors as guidance for decision making • We have our business model visible in our office
Processes	<ul style="list-style-type: none"> • We usually start doing things manually that we later can automatize • We test our riskiest assumptions about our business model first • We aim to find insights regarding our business model as fast or cheap as possible • We have regular meetings scheduled where we discuss changes to our business model
Metrics	<ul style="list-style-type: none"> • Our key metrics are ratios • Our aim is to only measure things which we can take action on • Our internal productivity is measured in how many insights we get about our business model and not how many hours of work we have done • Our customers are broken down into related groups instead of looking at them in a cumulative way

Table 5. Grouping of statements into related groups, in order to facilitate for the survey respondents (Easterby-Smith et al., 2015).

3.7.5 Ensuring that contacted ventures would respond

Some measures were taken in order to ensure that the contacted ventures would participate in the survey. Easterby-Smith et al. (2015) recommend that the participants are given small rewards for participating; in this study the participating ventures were promised to receive charts showing how they had rated the statements compared to how the average participating startup had rated the statements. This was assumed to be of value for the startups, as it would give them insights regarding if they are focusing on the same things as other ventures or not.

Furthermore, in the email that was sent out to the potential participants (see appendix 3 for the email template), it was mentioned that the survey was sent out to the ventures related to two of the biggest startup accelerators in Sweden. This is in alignment with what Easterby-Smith et al. (2015) call social validation; the participation rate can be increased by “[...] showing that people similar to them have completed it already.” (p.224).

Easterby-Smith et al. (2015) further means that trust can be increased by obtaining sponsorship by a legitimate authority. This was done in the study by getting the approval by Y to use her/his network of startups to send out the surveys to. Y is a serial entrepreneur engaged in one of the startup accelerators that is widely known in Sweden and her/his name was referred to in the emails sent out to the startups. Further on, responding to the survey was facilitated as recommended by Easterby-Smith et al. (2015); this was done by including an Internet link in the emails sent out and making the survey short and easy to complete. A further attempt to increase response rates was done by mentioning that the possibility to respond was limited to a specific date; according to Easterby-Smith et al. (2015) this can increase the participation rates.

3.7.6 Survey design

For every statement in the IPLSM framework (25 in total), the respondents had to take a stand to two questions; the first looking at how much the venture practices the statement, the second looking at how important the venture believes the statement is to its success. Hence, a respondent had to evaluate in total 50 (25*2) different statement-questions.

The questions used for every statement were:

- How much do you agree that the statement is true for your firm?
- How important would the statement be for the success of your startup, IF it was totally true?

To the first question, the respondents could choose between the following five alternatives:

1. I have no opinion
2. I do not agree at all
3. I agree to a little extent
4. I agree to a relatively high extent
5. I agree to a very high extent

To the second question, the respondents could choose between the following five alternatives:

1. I have no opinion
2. Not important at all
3. Somewhat important
4. Relatively much important
5. Very much important

The response alternatives were heavily influenced by the Likert scale (Easterby-Smith et al., 2015). In order to avoid that respondents vote on the most neutral alternative, an even number of alternatives was developed. Seeing as alternative 0 meant that the alternative is non-applicable for the venture (and was hence not counted in the analysis, mentioned further in section 3.8.1), alternatives 1 and 2 were more negative towards the statement, and alternatives 3 and 4 were more positive. The respondents could thus not choose a neutral alternative which could be considered a limitation and a source of bias. However, the risk of respondents choosing a neutral alternative was perceived to be a bigger threat for biasing the data and was avoided.

The survey was further limited by the tool used for creating the online survey (Google Forms); the intention was primarily to have seven alternatives (three positive, three negative and one not applicable) in order to better see the nuances in discrepancies between agreement and importance. However, having seven alternatives resulted in that two alternatives were not seen on the main screen; participants would have had to scroll to the sides to see them. The author did not want to risk that participants missed the alternatives and hence had to adjust the number of alternatives; the only feasible way of having an even number of alternatives was choosing five alternatives (where one was "N/A").

3.8 Analysis method

The survey results were analyzed as described below.

3.8.1 Weighting replies

In order to analyze the data, the response alternatives for the question "How much do you agree that the statement is true for your firm?" were weighted according to table 6 below.

Note that the alternative “I have no opinion” is not applicable; all responses of this alternative have been excluded from the survey analysis for this question. This is because the respondent with this alternative is not taking a stance, neither agreeing nor disagreeing; should the respondent agree or disagree to the statement to various degrees, the respondent has several other alternatives to choose between. There are many reasons why a respondent can have chosen “I have no opinion”; most probably it is because the respondent has felt that it is not applicable for her/his firm (see survey feedback in appendix 4).

Response	Weighted score
I have no opinion	N/A
I do not agree at all	1
I agree to a little extent	2
I agree to a relatively high extent	3
I agree to a very high extent	4

Table 6. The weighted score for responses to the question “How much do you agree that the statement is true for your firm?”.

The response alternatives for the question “How important would the statement be for the success of your startup, IF it was totally true?” were weighted according to table 7. Note that also here, the alternative “I have no opinion” is not applicable; all responses of this alternative have been excluded from the survey analysis for this question. This is because the respondent with this alternative is not taking a stance, neither believing it is important or unimportant; should the respondent believe the statement to be important or unimportant to various degrees, the respondent has several other alternatives to choose between. There are many reasons why a respondent can have chosen “I have no opinion”; most probably it is because the respondent has felt that it is not applicable for her/his firm (see survey feedback in appendix 4).

Response	Weighted score
I have no opinion	N/A
Not important at all	1
Somewhat important	2
Relatively much	3
Very much important	4

Table 7. The weighted score for responses to the question “How important would the statement be for the success of your startup, IF it was totally true?”

3.8.2 Method of analyzing

In order to make sense of the data, the means were compared for the two questions of every statement. The decision to use the mean as analysis method was based on the fact that it is an efficient summary measure of location, as it captures and takes into consideration all the information in a data (Easterby-Smith et al., 2015). However, using the mean, researchers need to make sure that there are no errors when transcribing the data, since a transcription error could alter the mean (Easterby-Smith et al., 2015). This is further discussed in 3.10.1. Using the mean has enabled the author to be confident where the data is centred (Easterby-Smith et al., 2015).

Comparing the means was done by adding together all respondents’ answer to every unique statement-question (as described in section 3.7.6) and dividing by the amount of data points for that statement-question (Easterby-Smith et al., 2015). The formulas in the table below were used for this. Note that the “I have no opinion” responses were left out for both the questions for all statements. This means that the sample size is not the same for all the statements and all the questions; see table 13 in section 5.1 for this.

Variable	Formula	Further explanation
Mean agreement \bar{x}	$\frac{\sum_{i=1}^n X_i}{n}$	X_i = venture <i>i</i> 's agreement for statement <i>X</i>
Mean importance \bar{y}	$\frac{\sum_{i=1}^n Y_i}{n}$	Y_i = venture <i>i</i> 's importance for statement
Standard deviation agreement	$\sqrt{\frac{\sum_{i=1}^n (X_i - \bar{x})^2}{n - 1}}$	X_i = venture <i>i</i> 's agreement for statement <i>X</i>
Standard deviation importance	$\sqrt{\frac{\sum_{i=1}^n (Y_i - \bar{y})^2}{n - 1}}$	Y_i = venture <i>i</i> 's importance for statement
Discrepancy for statement <i>X</i>	$\frac{\bar{x} - \bar{y}}{\bar{x}}$	

Table 20. Summary of formulas used for the analysis.

A discrepancy between the means indicates that there is a difference in how important a venture believes a factor to be for its future success and to what degree the factor is practiced by the venture. This way of measuring the discrepancy was used in order to easier illustrate how far a startup is from its “ideal”. A negative discrepancy indicates that a venture believes a factor is more important to its future success than what the factor is practiced by the venture today, hence leading to questioning why that factor is not practiced. A positive discrepancy on the other hand indicates that a startup believes a factor is less important to its future success than what the factor is practiced by the startup today, leading to questioning why the factor is practiced too much.

3.8.3 Labeling the results

In order to facilitate the comparisons made in the analysis, the scales in table 8 and table 9 were used to discuss the discrepancies between agreement and importance.

Score	Label
1.00-1.49	No
1.50-1.99	Very low
2.00-2.49	Low
2.50-2.99	Medium
3.00-3.49	High
3.50-4.00	Very high

Table 8. Labeling of the results in order to have a uniform language throughout the report.

Discrepancy	Label
<5 %	Negligible
5-10 %	Low
10-15 %	Medium
>15 %	High

Table 9. Labeling of the discrepancies in order to have a uniform language throughout the report.

3.8.4 Labelling the startups

The startups were divided into groups based on their age, in order to facilitate the analysis. This was also believed to facilitate spotting trends between the different age groups. This is shown in table 10 below.

Group name	Age
Alpha	0-1 years
Bravo	1-3 years
Charlie	3-5 years
Delta	>5 years

Table 10. Grouping of startups based on their age.

3.9 Scope

This study looks at if there are any discrepancies in what startups believe are important IPLSM factors and how much they practice said IPLSM factors.

3.9.1 Delimitations

The study is delimited to only use Swedish startups for the data collection (survey) and framework building (interviews). The author's limited network abroad and the time limit to the study did not allow for using a sample of international ventures. It is thus not possible to generalize outside of the Swedish startup scene. However, insights from using startups from a Swedish sample is still believed to be to provide interesting insights that can be of value for the academia and international startups.

Another delimitation is that the study will not investigate if there is a correlation between the IPLSM factors proposed and the financial performance of the startups. This is because startups are widely known for not being profitable when they are young; Spotify has not been profitable this far (Allabolag.se, 2017) since it has been growing. Furthermore, measuring the financial performance of today might not make the startups any justice, since they can scale their businesses by much in a short time.

3.9.2 Limitations

The intention for this study was initially to involve startups from the two major startup accelerators in Sweden. Through personal contacts, the first startup accelerator was contacted and agreed on participating. A visit was done by the author's tutor to the second startup accelerator's office, where he met some of the key people for the accelerator. These agreed on participating as well. However, a limitation for this study is unfortunately that one of the two startup accelerators did not manage to notify its startups in time about participating in the survey. This negatively impacted this survey as more data would have been gathered, which would have lead to a more robust analysis and generalizability. However, the 34 unique startups participating in the survey are still considered to be enough to get a statistically significant analysis for the claims proposed.

Another limitation for this survey is that there has not been an explicit check-up with the survey respondents if they consider themselves to be startups according to the definition of Blank (2007). This was not done in order to make the survey easier to respond to (Easterby-Smith et al., 2015). However, since some of the initial questions in the survey asked were: (1) "What is the name of your startup?" and (2) "What sector(s) is your startup operating in?", it was assumed that a respondent would not go through with the survey if s/he did not believe her/his company to be a startup. Furthermore, something supporting that the respondents were startups is that the email addresses were received from RSSA, one of the most renowned startup accelerators in Sweden. This was further ensured by specifically asking Y at RSSA to ensure that the participating ventures were startups.

Furthermore, another limitation is that the respondents for the ventures where only one in the team responded to the survey are in almost all cases the founder or a part of the founding team; it may be questioned if their point of view represents the whole venture's opinion. However, it can be argued that a founder/co-founder is more accurate in her/his evaluation of the firm than other employees would be; seeing that most ventures only had one person responding, it is still deemed good that the founders/co-founders responded.

Another limitation for the study is that some statements might have been misunderstood. In section empirical findings 4.1, it can be noted that the last 4 statements regarding metrics have a lower n (sample size of answers) than what the other statements have. This is especially true for statement 25, who has the lowest n of all statements. This implies that this statement to a higher degree has been misunderstood than the others. However, the n answers are still deemed to be statistically sufficient to draw conclusions for the study.

Another limitation for the study is that the software used for the survey (Google Forms) did not allow to add more than 5 alternatives for the scale. The primary intention was to have 7 scales, as it would allow for more nuances in the responses. However, this was not feasible in the software as it lead to respondents not seeing all alternatives on the screen; the risk for getting biased responses was thus deemed high.

3.10 Trustworthiness

The findings and conclusion of this study are mainly derived from purpose (2) and are based on survey data. The trustworthiness of the study hence has to be evaluated by looking at the following dimensions; reliability, robustness and external validity (Easterby-Smith et al., 2015). These are further discussed in the following subsections.

3.10.1 Robustness

In order to fulfill purpose (2), the analysis included comparing the means for the two questions posed for every statement. Easterby-Smith et al. (2015) mean that using the mean is not very robust. This is because altering the mean can occur due to transcription errors; changes to a single data point could alter the mean (Easterby-Smith et al., (2015)). The mean altering depends on how extreme the error value is, which could for instance be one single data point changed with huge difference in value, or by small changes done on all of the data. In order to ensure that there were no transcription errors, the author used softwares which the author has good knowledge in. The author used Google Forms for the surveys and transcribed the data into Excel in order to do the analysis. The data that was transferred to Excel data was compared to the actual survey responses in order to find differences, which would indicate transcription errors; no such differences were found. The data has hence been deemed good enough to be used in this study. This is in alignment with Easterby-Smith et al. (2015), who mean that researchers who have confidence that they have data of good quality tend to use the mean.

For the building of the IPLSM framework, ten case studies were done. This makes the framework more robust than had only one case study been made (Bryman and Bell, 2015).

3.10.2 External validity

External validity is an indication of how much the conclusions can be generalized outside the study (Easterby-Smith et al., 2012). The findings in this study, related to purpose (1) and purpose (2), can be generalizable to the extent presented in the limitations and delimitations (section 3.9). For the building of the IPLSM framework, ten case studies were done. This makes the IPLSM framework more valid than had only one case study been made. Furthermore, the survey sample comprised of 34 startups representing many different fields

(see table 4), which further strengthens the generalizability as opinions from startups of all ages and in a wide array of fields have been voiced. The findings can hence be used in order to evaluate the discrepancy for IPLSM factors amongst startups. However, since all the participating startups were Swedish, it is not possible to state that the findings are generalizable outside the Swedish startup scene; a way to test if the IPLSM framework is generalizable could be through surveying startups in different countries and compare the findings to the Swedish startups.

It shall further be noted that the framework needs to be tested for what IPLSM factors actually correlate to successful performance. This is planned to be done in a future study. It is hence not possible at this state to say that a startup is more likely to be successful than another one, based on the IPLSM framework. This is further discussed in section 7.5.

3.10.3 Reliability

Easterby-Smith et al. (2015) mean that one of the major concerns regarding survey designs is if the instruments and questionnaires are accurate and stable enough. The survey software can be considered both accurate and stable as the risk of choosing the wrong alternative when conducting the survey is deemed low; the alternatives were slimmed down to five in order to see all alternatives on the screen, and the software did not accept sending in unanswered questions. Hence, the risk of a respondent forgetting to respond to a question is 0, since this was not possible.

Furthermore, the external reliability, indicating if a study is replicable (Bryman and Bell, 2011), was increased by saving the recordings of the interviews, the notes regarding participating interviewee selection and commentary about the data analysis (Yin, 2014).

The internal reliability, indicating if researchers have the same opinion about the findings (Bryman and Bell, 2011), was not possible to be increased since the author was alone in the study. It can hence not be assured that another researcher would have had the same point of view on matters, should s/he have been part of the study. However, attempts to increase the internal reliability were done by exchanging ideas with other graduate students when the author had uncertainties; inviting them and discussing both the recorded interviews and the survey data with them ensured that a common view was formed (Yin, 2014). It shall also be noted that the author was in close contact with his tutor (1-2 times a week), and ensured that they had same point of view on matters.

4. Empirical findings

The raw data from the survey is shown in 4.1 below. Note that it has been weighted in accordance to table 6 and table 7 . Further note that the statements in the tables have been shortened in order to make the tables more easily readable (Easterby-Smith et al., 2015). The statements are however still corresponding to the statements presented in 3.7.4.1-3.7.4.25. The meaning of the abbreviations “AGR” and “IMP” is further described in table 11 below.

In section 4.2 the raw data from 4.1 has been visualized in charts corresponding to the 25 statements. In order to make the charts easily readable the startups have been grouped together based on their age, according to section table 10.

Abbreviation	Meaning
AGR	How much do you agree that the statement is true for your firm?
IMP	How important would the statement be for the success of your startup, IF it was totally true?

Table 11. Definition of abbreviations in survey data.

4.1 Raw survey data

In the table below, the raw data from the survey is presented.

STARTUP	QUESTION	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP
Charlie 1	Charlie 2	Bravo 3	Delta 4						
1. Different expertise	4	3	3	3	2	4	4		
2. Diverse background	3	3	3	2	3	2	4	3	
3. Highly motivated	3	4	3	4	2	3	3	4	
4. Expectation	3	4	2	4	1	3	3	4	
5. Different measures	4	3	2	4	1	3	3	3	
6. Unity feeling	3	4	4	2	4	4	3	4	
7. Common goals	4	4	3	4	1	4	3	3	
8. Equality	3	3	4	2	2	4	3	3	
9. Try & Fail	3	4	3	3	2	4	4	4	
10. Industrial	4	4	1	2	1	3	4	4	
11. Role specific	3	4	2	3	4	3	4	4	
12. Entrepreneurial failure	2	4	1	1	1	3	3	3	
13. External	4	4	2	2	4	4	2	3	
14. Customers & BM	4	4	3	3	3	3	4	4	
15. Market adjustment	4	4	1	0	2	3	3	3	
16. Customer behavior	4	4	2	3	1	2	4	4	
17. Visible BM	1	3	1	1	1	1	2	2	
18. Start manually	3	3	4	3	0	0	3	3	
19. Risky BMs first	2	3	2	2	0	0	3	3	
20. Fast BM insights	4	4	2	2	2	3	3	3	
21. Regular BM meetings	4	4	2	3	1	2	3	4	
22. Ratios	2	3	2	1	1	1	1	2	
23. Actionables	3	3	3	2	0	0	3	3	
24. Insights	4	4	1	1	3	3	1	2	
25. Customer groups	0	0	0	0	1	1	3	3	

STARTUP	Charlie 5		Bravo 6		Alpha 7		Charlie 8		Alpha 9		Alpha 9		Delta 10		Charlie 11		Charlie 11
QUESTION	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR
1. Different expertise	2	2	3	4	2	0	3	3	3	3	3	4	3	0	4	4	3
2. Diverse background	3	2	4	4	0	0	1	2	2	3	1	3	2	3	1	2	3
3. Highly motivated	4	4	4	4	4	4	4	3	3	4	4	4	3	4	3	3	4
4. Expectation	3	3	4	4	4	4	3	3	3	3	2	2	3	4	2	3	3
5. Different measures	4	4	4	4	0	0	4	2	3	2	4	3	2	2	3	3	4
6. Unity feeling	3	2	2	2	3	3	3	3	4	4	3	4	3	4	2	3	4
7. Common goals	2	2	4	4	3	3	3	3	3	4	4	4	3	3	2	2	3
8. Equality	2	2	4	4	1	1	3	4	2	2	4	4	3	3	0	0	4
9. Try & Fail	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	3	4
10. Industrial	4	3	1	2	2	2	2	2	2	2	1	3	1	2	1	3	2
11. Role specific	4	3	1	1	4	4	2	2	2	3	2	3	2	2	2	3	2
12. Entrepreneurial failure	4	4	3	2	4	4	1	2	3	2	1	2	3	2	2	3	2
13. External	4	3	3	2	4	4	2	3	4	4	4	4	3	3	4	4	4
14. Customers & BM	4	3	4	4	4	4	3	2	4	4	3	3	3	3	2	2	3
15. Market adjustment	2	2	3	3	2	2	1	1	3	4	4	4	2	3	3	3	3
16. Customer behavior	1	1	4	4	4	4	3	3	3	3	4	4	3	3	4	4	4
17. Visible BM	0	0	1	1	1	1	1	2	1	2	1	1	1	1	1	1	2
18. Start manually	3	2	1	4	4	4	1	0	3	3	3	3	3	3	4	4	4
19. Risky BMs first	3	2	0	0	3	3	1	2	2	3	3	3	2	3	3	4	4
20. Fast BM insights	2	2	3	2	4	4	3	3	4	3	4	4	2	2	4	4	4
21. Regular BM meetings	4	4	1	1	4	4	3	3	4	4	1	2	1	2	1	2	1
22. Ratios	2	2	1	1	1	1	1	1	3	3	2	2	0	0	4	4	3
23. Actionables	0	0	3	2	4	4	0	0	0	3	4	4	2	2	4	4	3
24. Insights	2	2	1	1	1	1	0	0	4	4	3	3	1	0	4	4	2
25. Customer groups	2	2	1	1	0	0	0	0	0	0	4	4	3	4	4	4	4

STARTUP	Charlie 12		Charlie 13		Bravo 14		Bravo 15		Bravo 16		Delta 17		Bravo 18		Bravo 19	
QUESTION	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP
1. Different expertise	3	3	4	3	4	3	3	3	4	4	3	3	4	4	4	4
2. Diverse background	2	3	2	3	4	4	4	3	1	4	2	2	4	4	2	3
3. Highly motivated	3	4	3	4	4	4	4	4	1	4	3	3	4	4	4	4
4. Expectation	3	4	3	4	3	3	3	3	1	3	4	3	3	4	4	3
5. Different measures	2	3	3	2	4	3	4	3	2	3	2	3	0	0	3	4
6. Unity feeling	4	4	4	3	4	3	4	4	0	4	3	3	4	4	4	3
7. Common goals	4	4	3	4	3	4	4	4	2	3	3	3	3	4	4	3
8. Equality	3	3	4	4	3	3	4	4	1	3	3	3	4	4	3	3
9. Try & Fail	4	4	4	4	4	4	3	3	1	4	3	3	3	3	4	3
10. Industrial	1	3	2	4	2	3	3	2	1	2	1	3	2	2	2	2
11. Role specific	2	2	3	2	3	3	3	2	2	1	2	2	2	2	2	3
12. Entrepreneurial failure	3	4	2	3	4	4	1	2	3	1	3	1	2	1	3	3
13. External	4	4	3	3	3	4	4	4	2	2	4	3	2	3	3	3
14. Customers & BM	2	1	3	3	3	3	1	1	3	2	3	4	4	4	4	4
15. Market adjustment	4	4	3	3	3	4	1	1	4	4	3	4	4	4	3	4
16. Customer behavior	3	4	3	4	4	4	3	3	4	4	3	4	4	4	4	4
17. Visible BM	1	2	1	2	1	2	1	1	0	0	4	3	2	4	1	3
18. Start manually	3	3	3	2	1	3	4	4	1	2	4	4	4	4	3	3
19. Risky BMs first	2	4	3	2	2	3	4	4	0	0	3	3	0	0	3	4
20. Fast BM insights	2	4	4	4	3	4	4	4	4	4	4	4	3	4	2	4
21. Regular BM meetings	1	2	4	4	3	3	1	3	3	3	3	3	3	3	2	3
22. Ratios	0	0	2	3	0	0	0	4	3	4	0	0	3	3	1	3
23. Actionables	3	3	3	3	0	0	3	4	2	3	3	3	1	1	3	3
24. Insights	4	4	1	2	3	1	1	0	1	2	0	0	0	0	2	3
25. Customer groups	3	2	3	3	0	0	1	1	3	4	0	0	4	4	3	3

STARTUP	Delta 20		Alpha 21		Charlie 22		Delta 23		Charlie 24		Charlie 24		Bravo 25		Bravo 26		Alpha 27	
QUESTION	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP
1. Different expertise	3	3	4	4	3	4	4	4	3	4	2	3	3	3	4	3	4	4
2. Diverse background	2	3	3	3	2	4	2	3	4	4	4	2	4	3	3	3	2	4
3. Highly motivated	3	3	3	4	4	4	4	3	4	4	3	3	4	3	4	4	4	4
4. Expectation	3	4	2	3	4	4	3	3	2	4	3	3	3	3	3	3	4	4
5. Different measures	3	3	4	1	3	3	4	3	2	4	3	3	3	3	3	3	2	2
6. Unity feeling	3	3	3	3	4	4	3	3	3	3	3	3	3	4	3	4	4	4
7. Common goals	4	4	2	3	3	4	3	3	3	4	3	3	3	4	3	3	4	4
8. Equality	3	3	4	4	3	3	2	3	4	3	3	3	3	3	4	4	3	3
9. Try & Fail	3	3	4	4	4	4	4	4	3	3	3	4	4	3	3	3	4	4
10. Industrial	3	3	2	2	1	2	2	3	2	4	2	2	3	2	3	2	4	4
11. Role specific	3	3	2	3	3	4	3	3	1	3	3	3	2	2	3	3	2	2
12. Entrepreneurial failure	1	3	3	3	3	2	1	2	2	1	2	2	1	2	2	2	1	3
13. External	2	3	4	3	4	2	3	3	4	4	4	4	2	2	3	3	4	4
14. Customers & BM	4	4	4	4	4	4	4	4	3	4	3	3	1	1	3	3	2	2
15. Market adjustment	4	4	2	4	3	3	4	4	3	3	2	3	3	3	3	3	2	3
16. Customer behavior	3	4	3	4	4	4	4	4	3	3	2	3	4	4	3	3	2	3
17. Visible BM	2	3	1	1	1	1	2	3	2	3	3	3	2	2	1	2	1	1
18. Start manually	3	3	0	0	2	2	3	2	4	4	3	3	2	2	3	2	4	4
19. Risky BMs first	1	2	3	4	3	4	3	3	3	2	0	0	2	2	3	3	1	2
20. Fast BM insights	3	3	4	4	4	4	4	4	2	3	2	2	3	3	3	3	3	3
21. Regular BM meetings	2	2	4	4	3	4	3	3	4	4	3	3	3	3	2	2	1	2
22. Ratios	3	3	0	0	2	2	1	2	3	3	3	3	4	3	2	2	1	2
23. Actionables	1	2	0	4	2	2	1	2	2	3	3	3	3	2	3	3	1	0
24. Insights	2	1	0	0	1	1	2	3	2	3	2	4	3	3	3	3	3	3
25. Customer groups	3	3	0	3	3	4	2	2	3	3	4	4	3	4	3	3	1	0

STARTUP QUESTION	Alpha 28		Alpha 28		Bravo 29		Delta 30		Charlie 31		Bravo 32		Bravo 32		Bravo 32		Bravo 32		Bravo 33		Alpha 34	
	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP
1. Different expertise	3	3	3	3	2	3	4	4	3	3	3	3	0	0	3	3	2	3	4	3	4	4
2. Diverse background	3	4	2	2	3	3	2	4	2	2	4	2	4	3	4	4	3	2	3	3	2	3
3. Highly motivated	3	4	4	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	3	3	2	4
4. Expectation	2	2	4	3	3	3	2	3	4	3	4	2	4	4	3	4	3	3	3	4	2	4
5. Different measures	3	3	4	3	4	4	3	3	4	4	2	2	3	3	4	3	3	3	2	3	4	3
6. Unity feeling	4	4	4	4	4	4	3	4	3	2	4	2	4	4	3	3	3	3	4	4	3	3
7. Common goals	3	3	4	3	4	4	2	3	2	3	4	2	4	4	3	3	4	4	2	4	2	3
8. Equality	4	4	4	4	4	4	3	3	4	4	3	2	3	2	2	3	3	3	3	3	2	1
9. Try & Fail	3	3	4	3	4	4	3	4	4	4	4	2	4	4	3	4	4	4	2	4	3	4
10. Industrial	1	2	3	3	4	4	4	2	3	4	1	2	1	1	3	3	1	1	2	3	1	1
11. Role specific	3	2	4	4	2	2	3	3	1	2	1	3	2	3	2	2	2	2	3	2	2	2
12. Entrepreneurial failure	2	1	4	4	4	4	2	2	3	4	2	1	1	1	2	3	1	3	2	1	1	1
13. External	3	2	2	1	4	4	4	3	3	4	4	2	2	1	2	1	1	2	3	3	3	4
14. Customers & BM	3	3	3	3	4	4	3	3	4	4	3	3	3	3	1	1	2	3	2	4	4	3
15. Market adjustment	2	2	2	2	3	4	2	2	4	4	2	3	3	3	3	3	3	3	2	3	1	2
16. Customer behavior	3	3	3	2	4	4	2	4	4	4	4	3	4	4	4	4	3	3	3	4	2	3
17. Visible BM	0	2	3	3	1	1	2	3	2	3	1	1	0	4	4	1	1	1	2	1	1	1
18. Start manually	2	2	2	3	3	4	4	4	4	4	4	4	3	4	4	4	3	3	1	2	1	1
19. Risky BMs first	0	2	2	3	2	2	3	3	4	4	3	2	2	4	4	4	3	3	2	3	1	2
20. Fast BM insights	1	1	2	2	4	4	3	3	4	4	3	3	3	4	4	3	3	2	3	3	2	3
21. Regular BM meetings	1	1	2	2	3	3	2	2	3	4	3	2	3	4	4	2	2	1	1	0	1	1
22. Ratios	2	1	3	2	3	3	2	3	1	3	2	2	2	3	3	3	3	1	1	1	1	1
23. Actionables	1	1	1	1	3	3	4	4	3	4	2	2	2	2	2	0	2	2	3	4	2	3
24. Insights	1	1	2	2	3	3	3	4	4	4	3	2	2	2	1	1	2	2	1	2	1	1
25. Customer groups	4	4	3	3	2	1	2	4	1	3	4	2	3	0	0	3	3	3	1	1	1	2

Table 12. The responses in the survey.

4.2 Visualization of survey data

The data from the survey is visualized below. Note that the startups have been grouped together based on their age, into the groups Alpha, Bravo, Charlie and Delta. This done in order to increase the readability of the chart (Easterby-Smith et al., 2015). These are represented by the smaller beads. The big bead represents the average rating of startups.

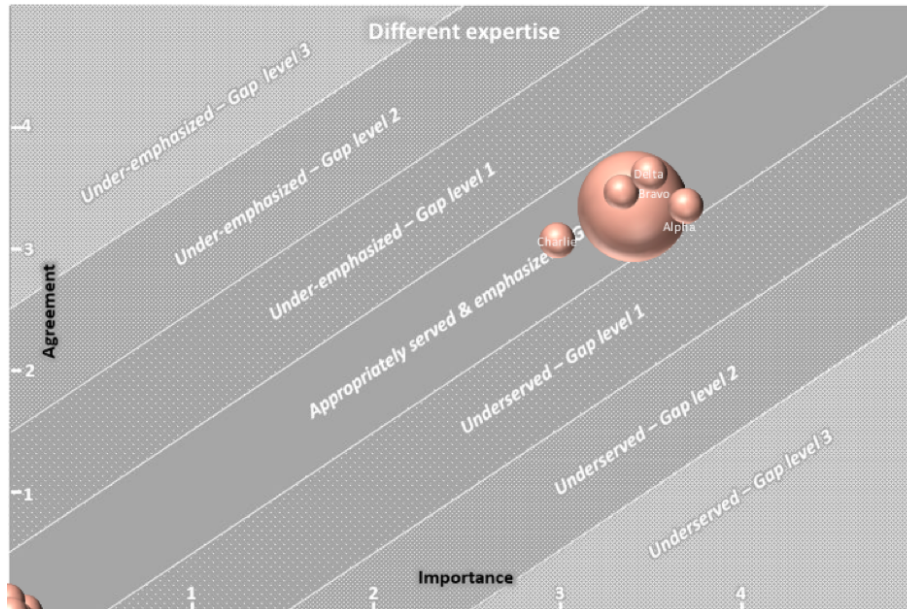


Chart 1. Our solution needs many different fields of expertise in order to be completed

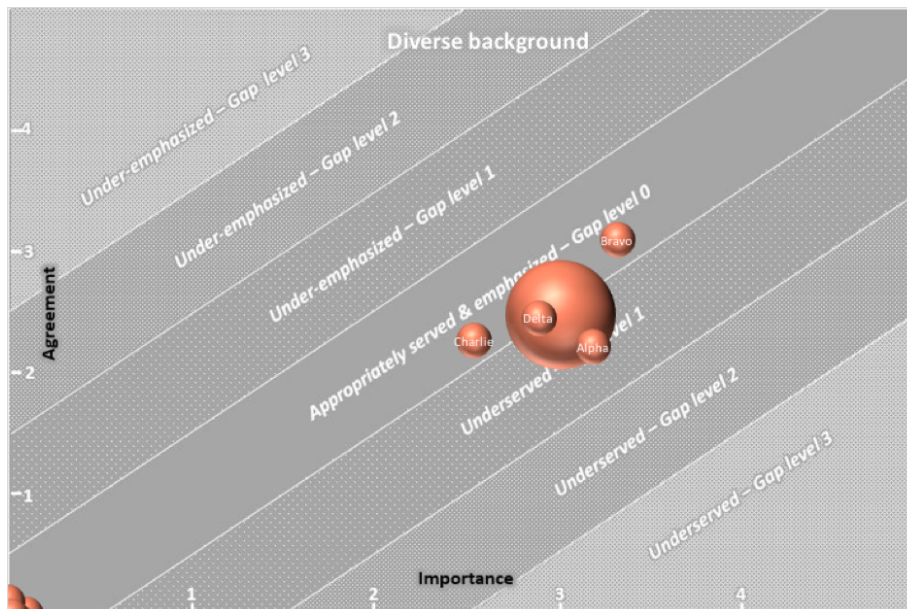


Chart 2. Our team has a great diversity regarding education, background and culture

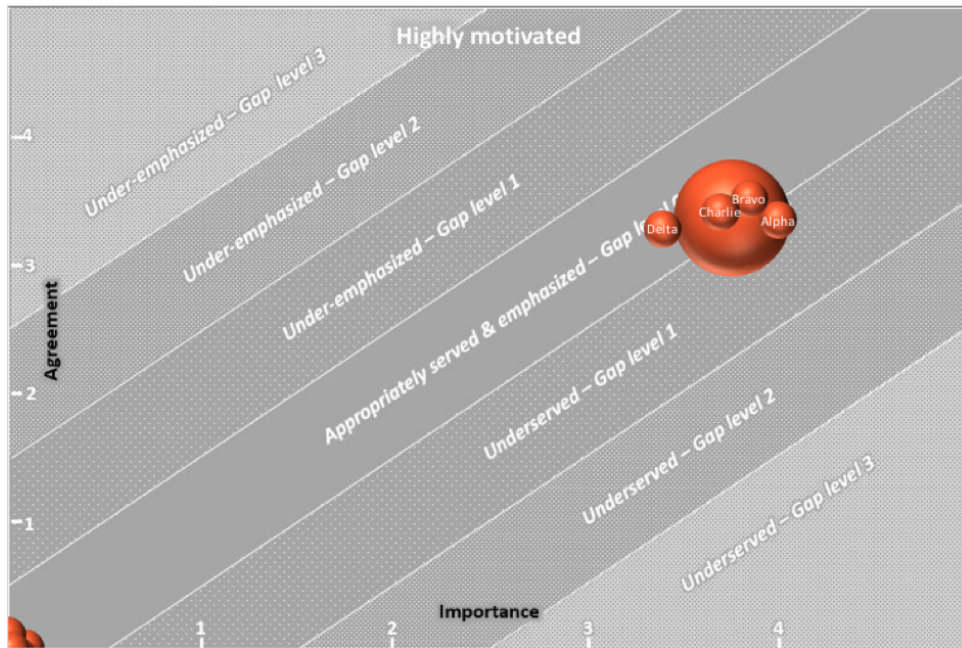


Chart 3. Our team members are highly motivated

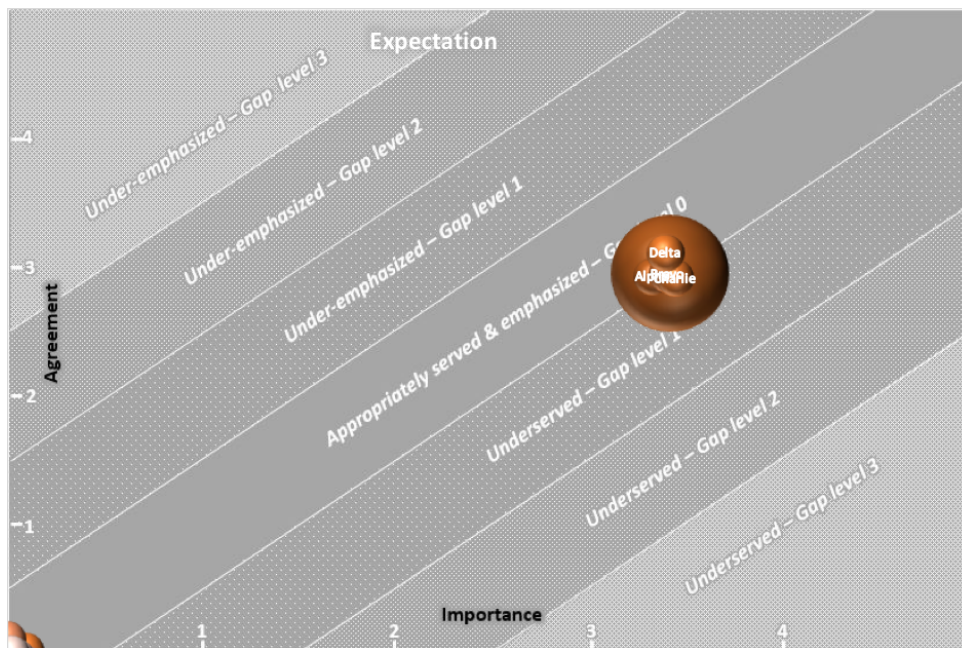


Chart 4. Our team members know what is expected from them in their work

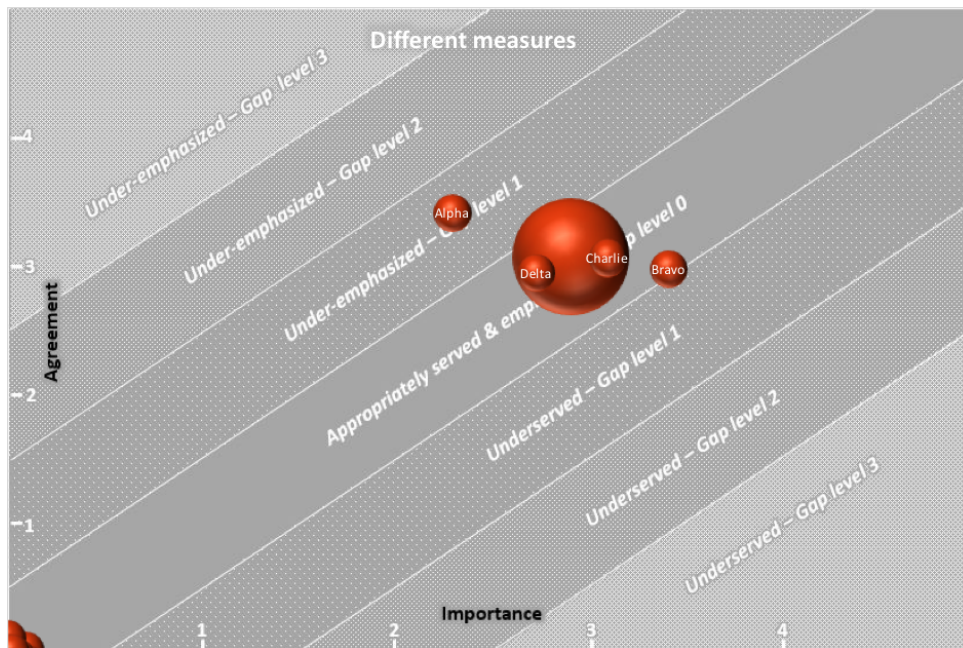


Chart 5. Our team members develop their individual capabilities through different measures

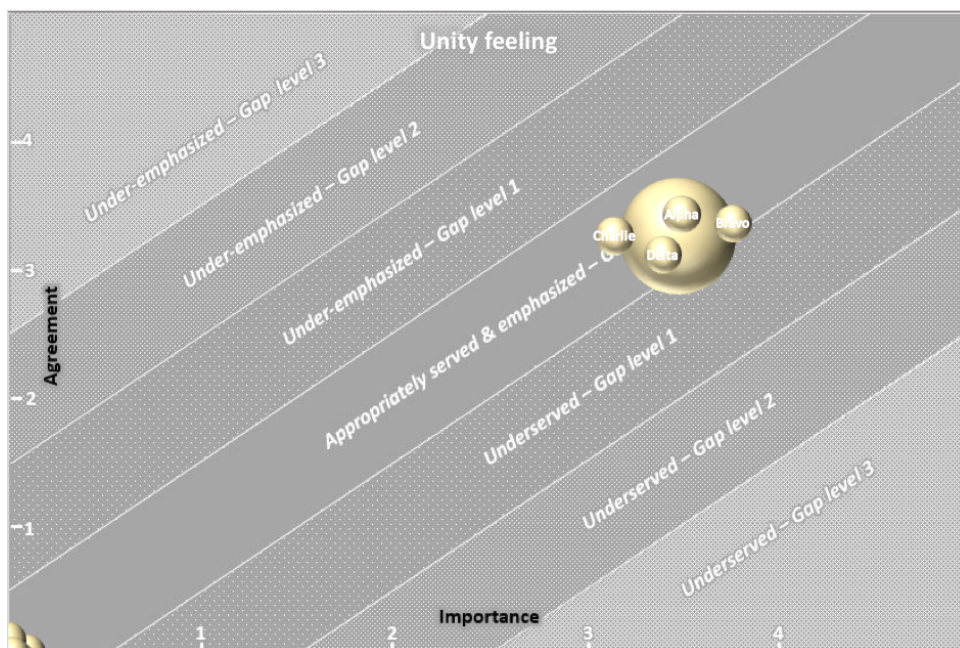


Chart 6. Our team members have a feeling of unity with the other members

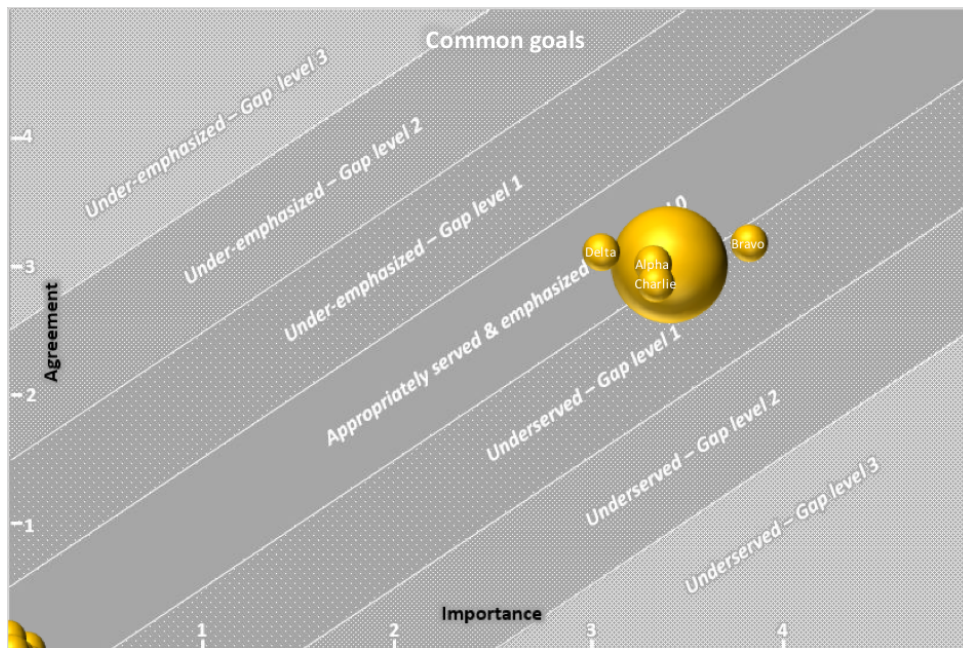


Chart 7. Our team members have common goals with the future of the venture

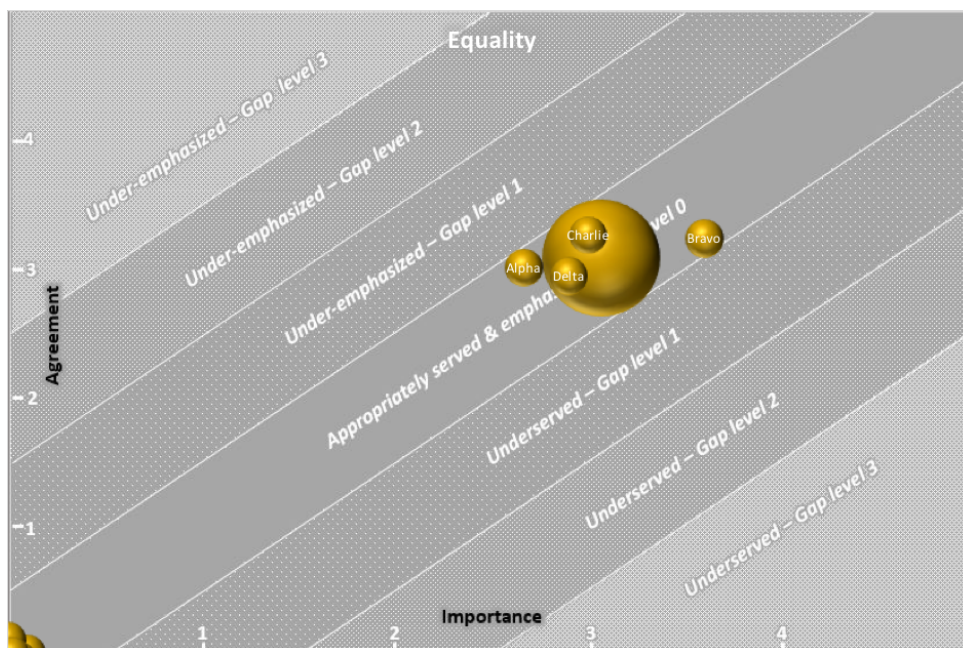


Chart 8. Our opinions in discussions are valued equally much regardless who they come from

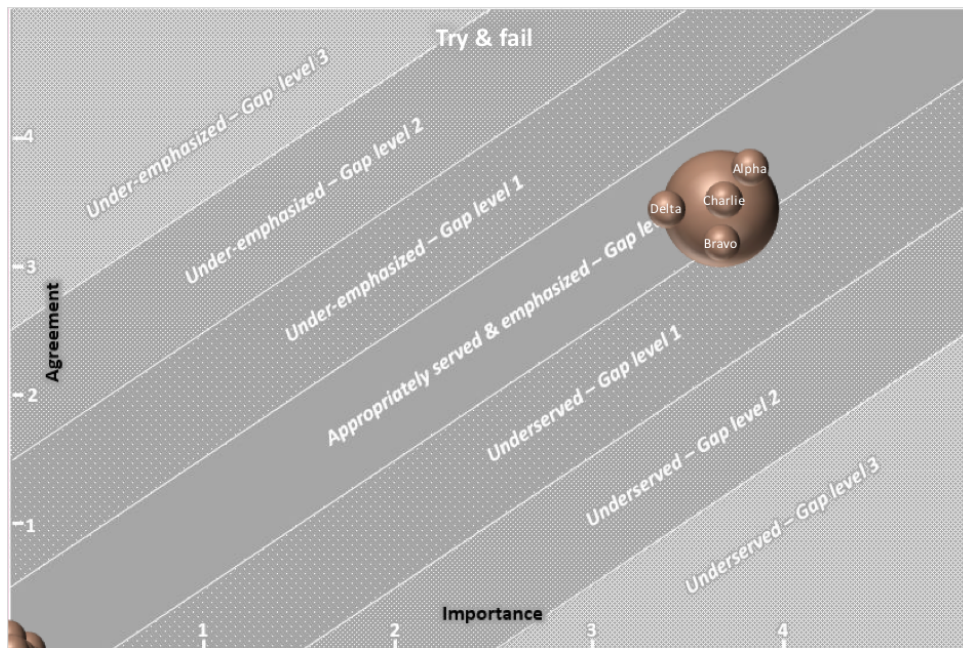


Chart 9. Our atmosphere allows team members to try and fail

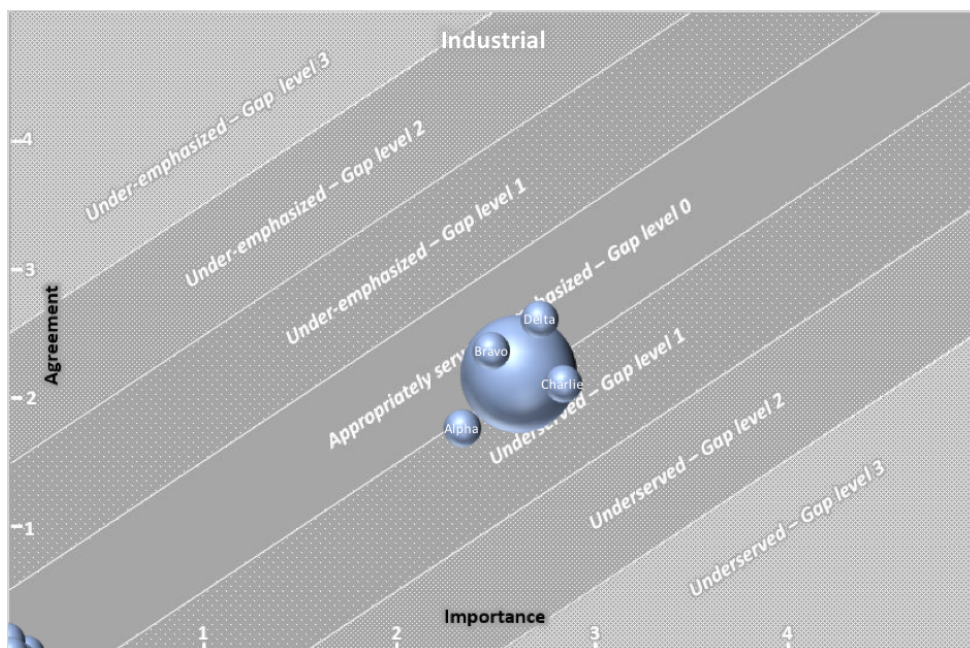


Chart 10. We have industrial experience, gained before we joined the venture

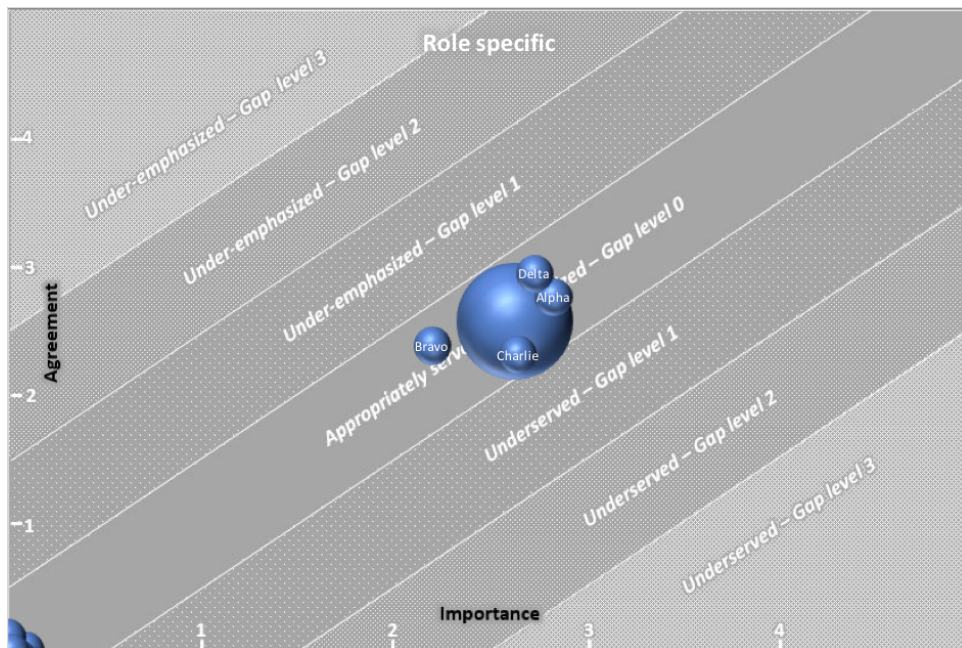


Chart 11. We have role specific experience, gained before we joined the venture

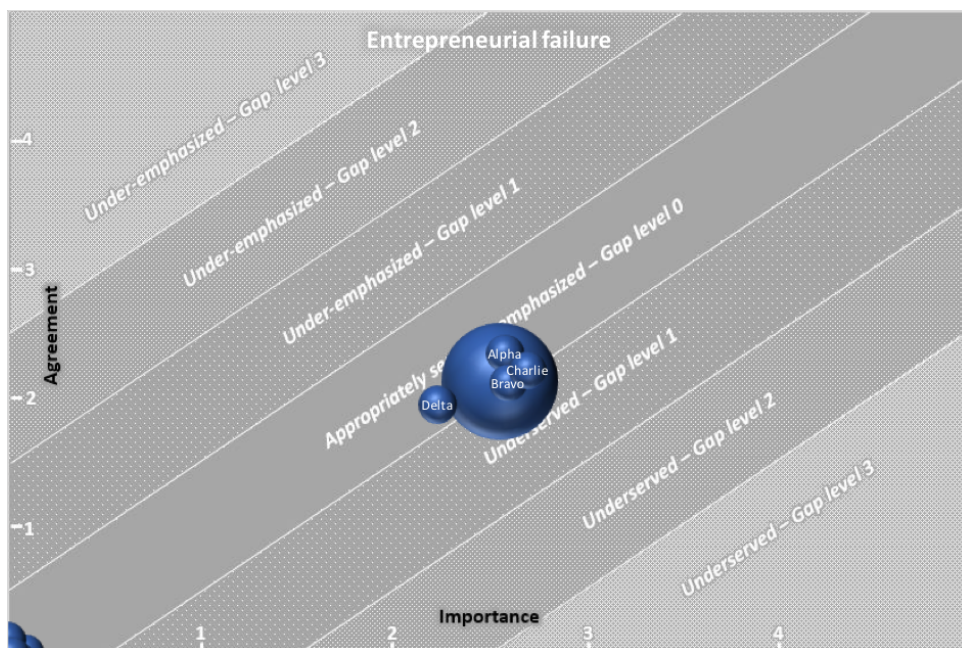


Chart 12. We have dealt with entrepreneurial failure at any time before the venture

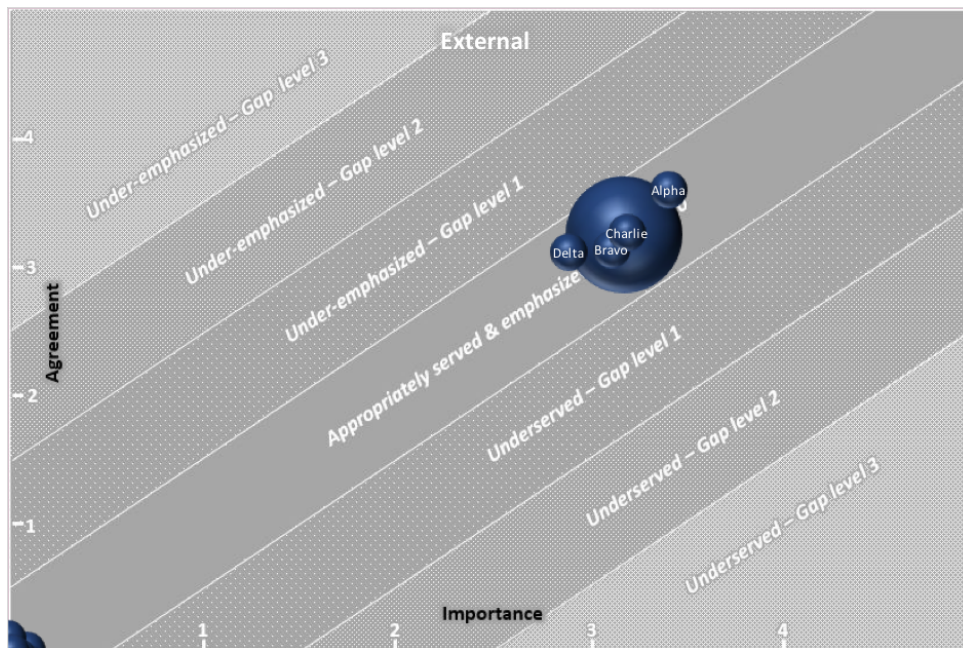


Chart 13. We get informal advice from people outside our team/board/investors on how to run our venture

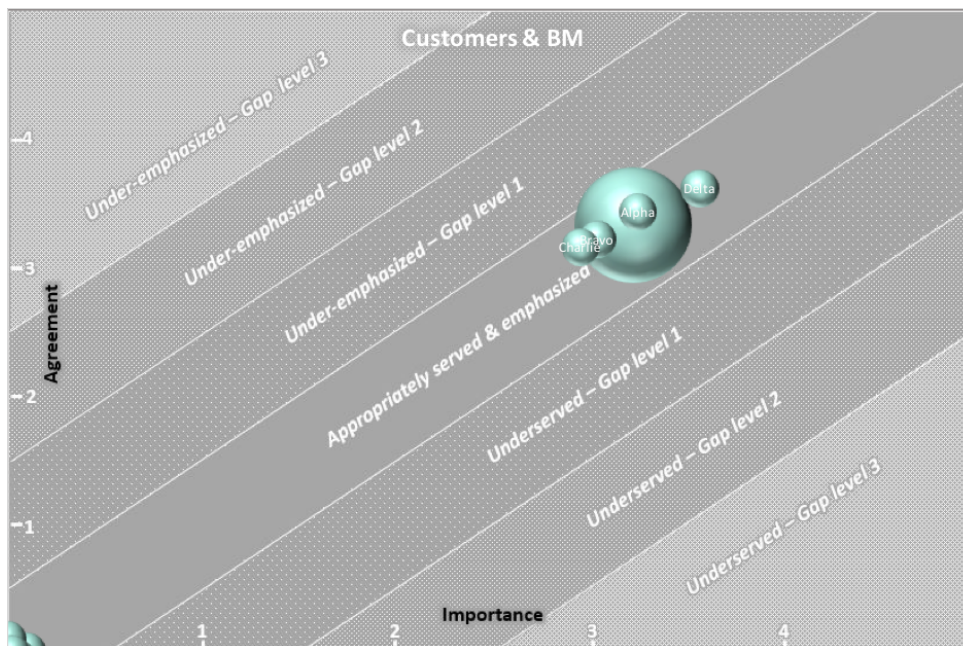


Chart 14. The development of our value proposition is driven by our assumptions about our customers or business model

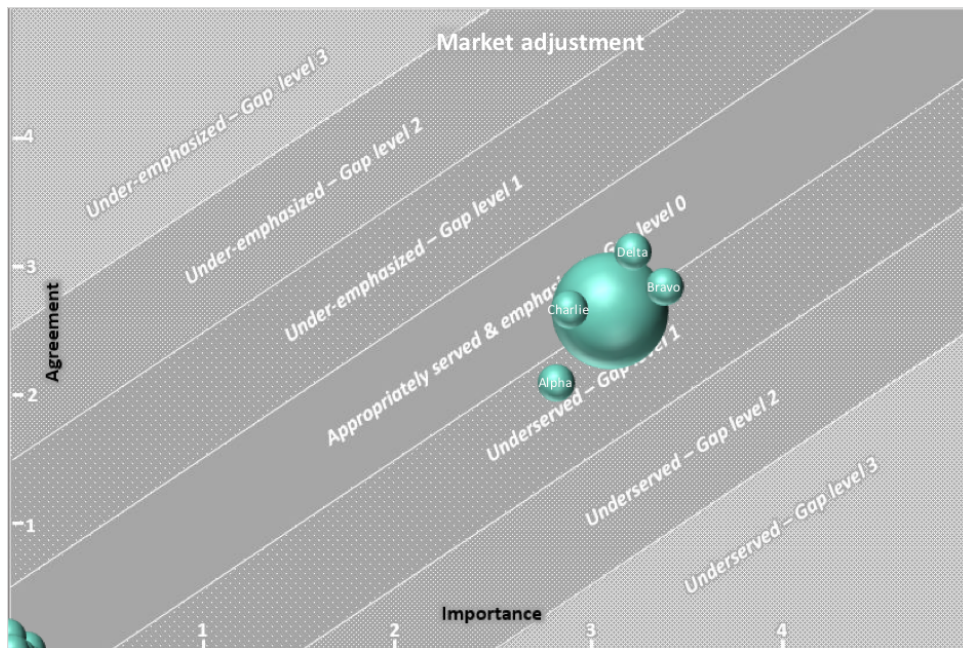


Chart 15. Our highest goal is, or has been, to adjust our value proposition perfectly to the market

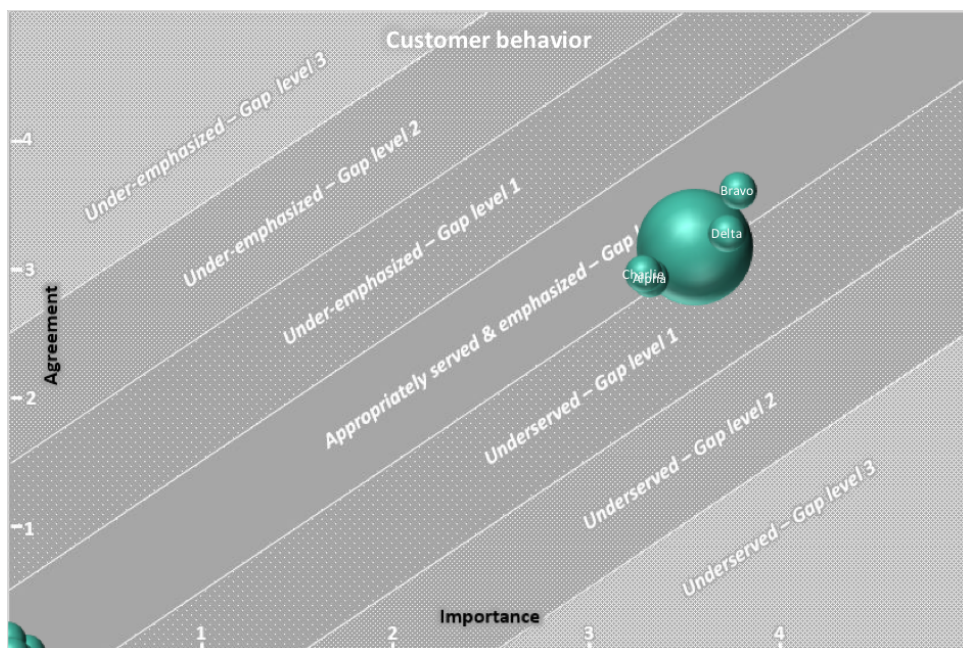


Chart 16. We use real customers' behaviors as guidance for our decision making

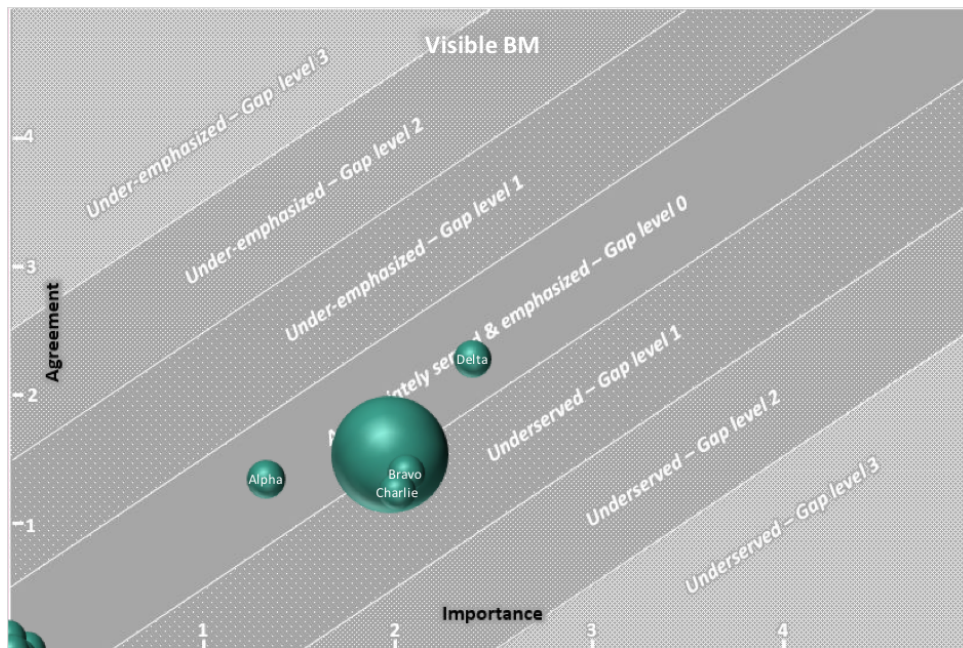


Chart 17. We have our business model visible in our office

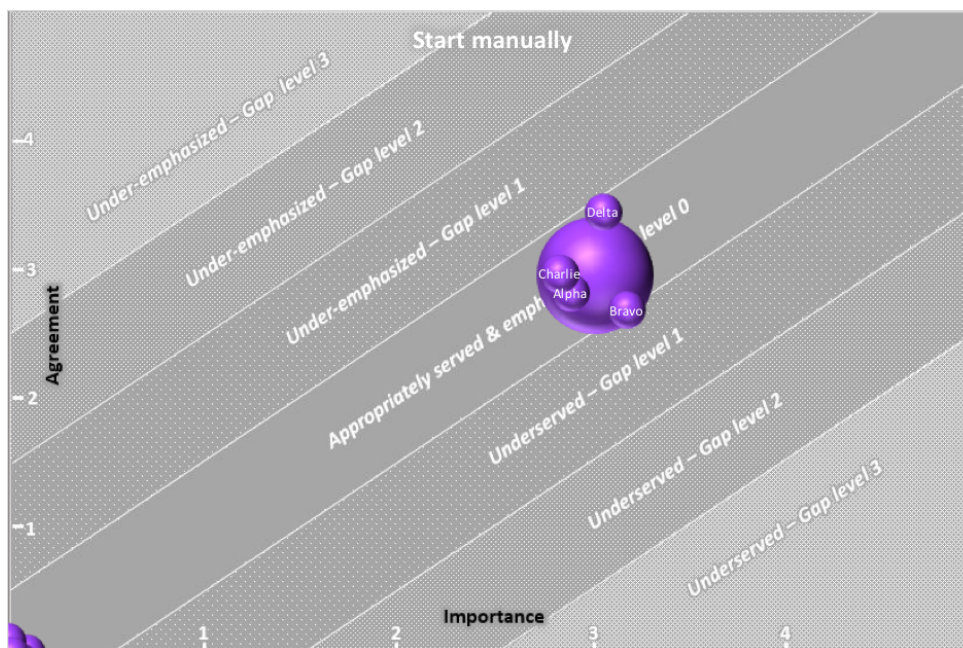


Chart 18. We usually start doing things manually that we later can automate

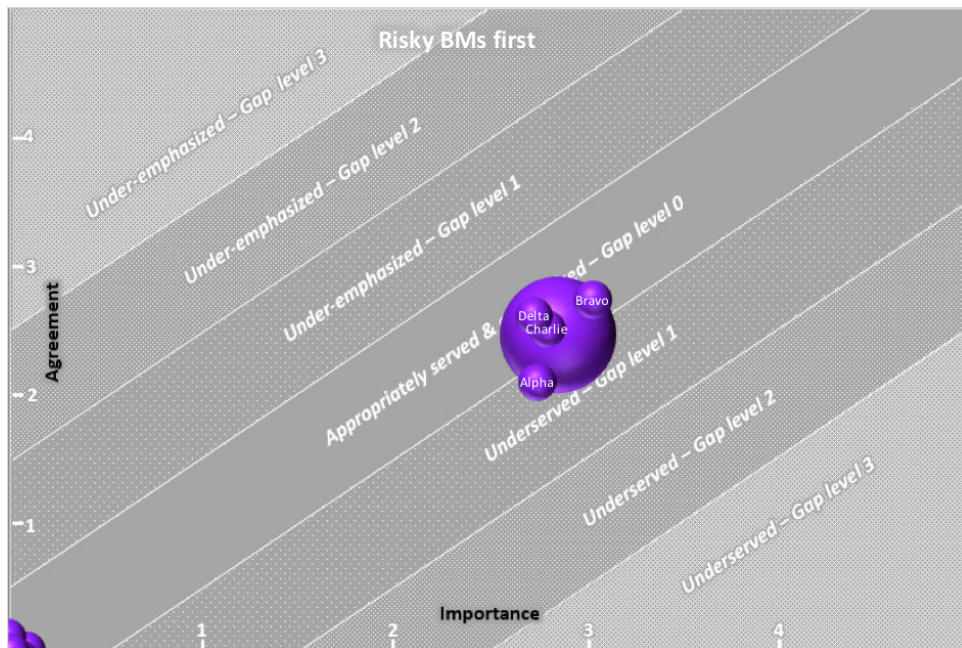


Chart 19. We test our riskiest assumptions about our business model first

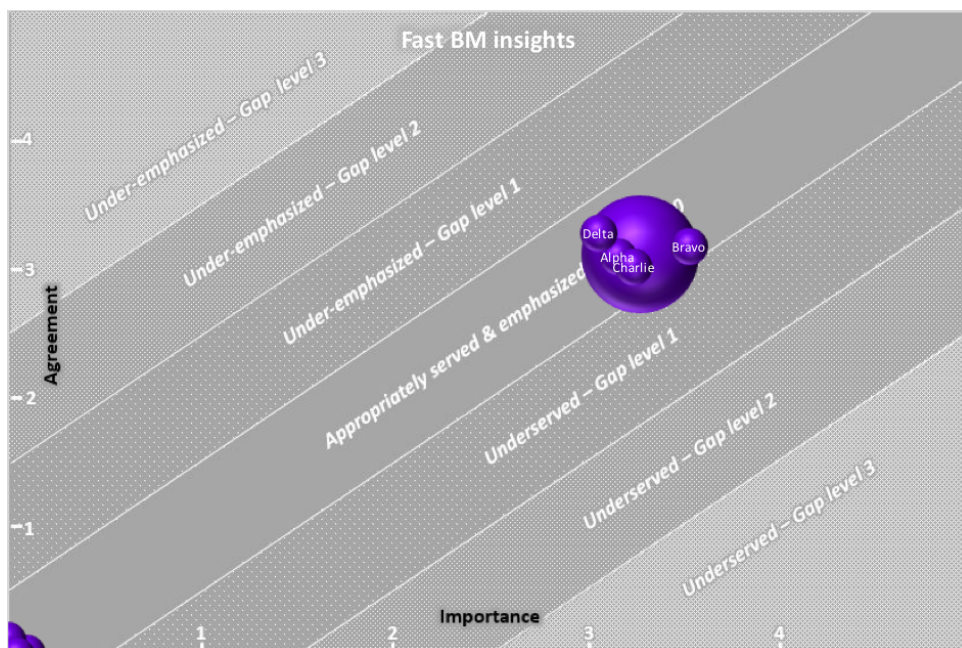


Chart 20. We aim to find insights regarding our business model as fast as possible

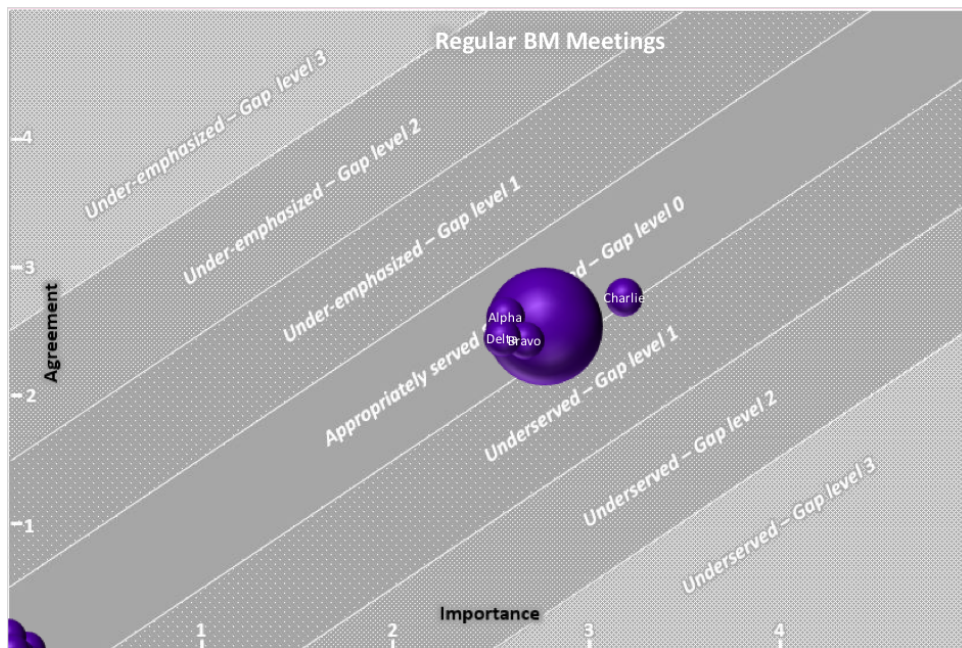


Chart 21. We have regular meetings scheduled where we discuss changes to our business model

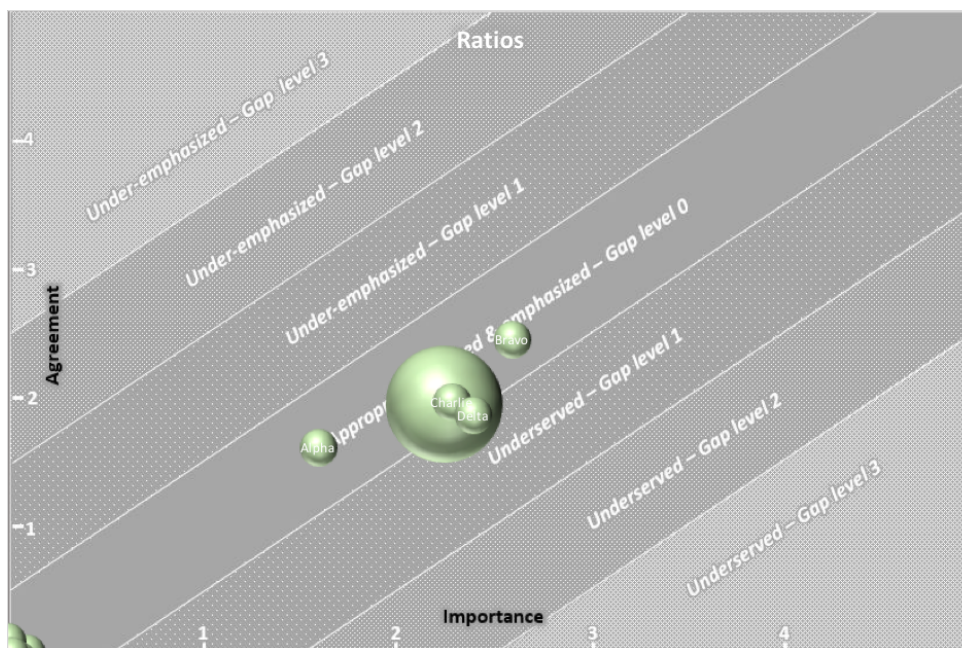


Chart 22. Our key metrics are ratios

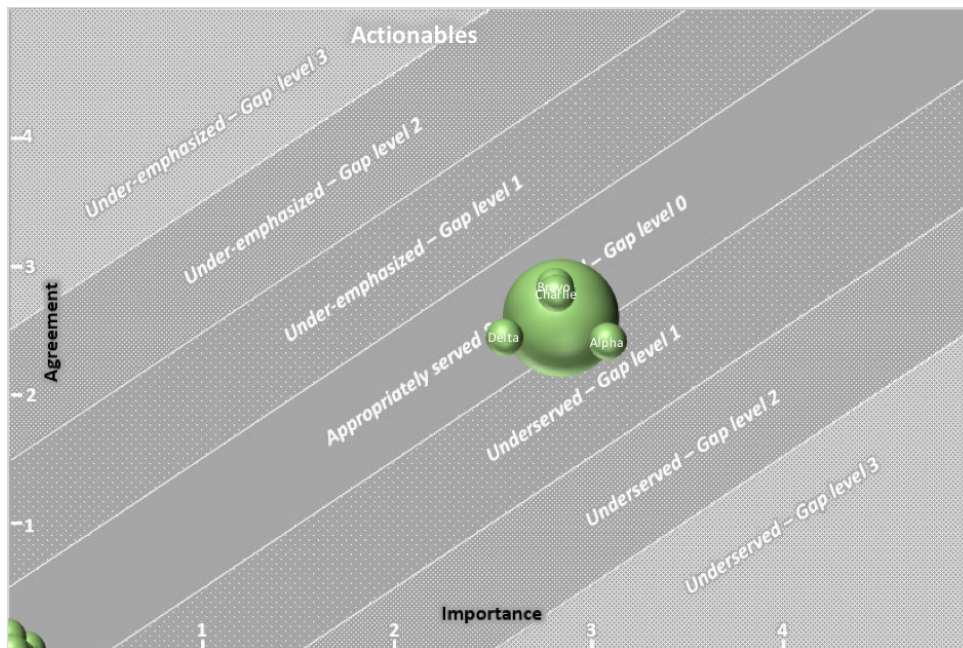


Chart 23. Our aim is to only measure things which we can take action on

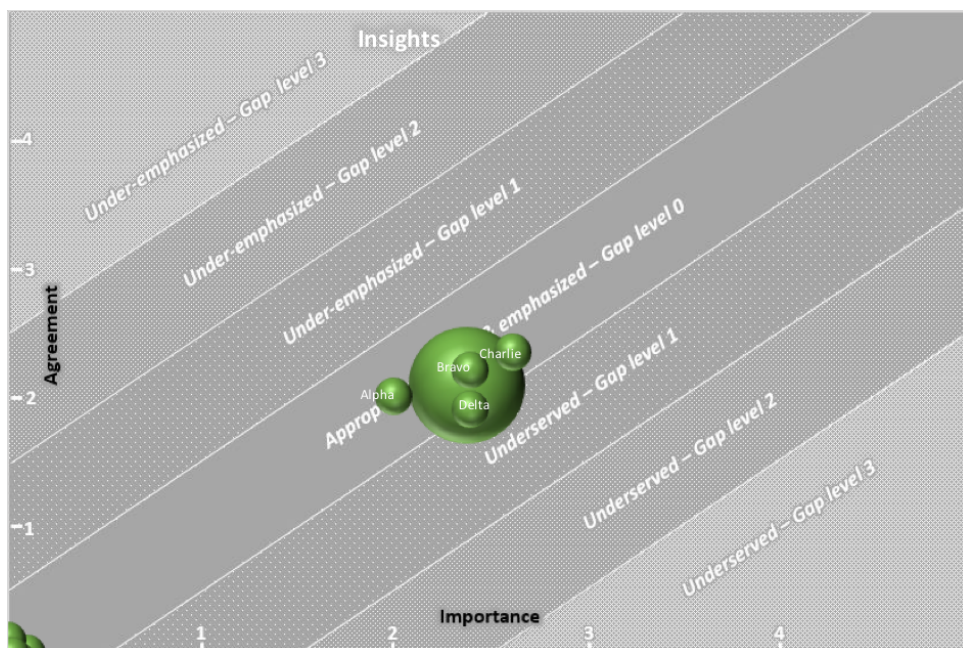


Chart 24. Our internal productivity is measured on how many insights we get about our BM and not how many hours work we have done

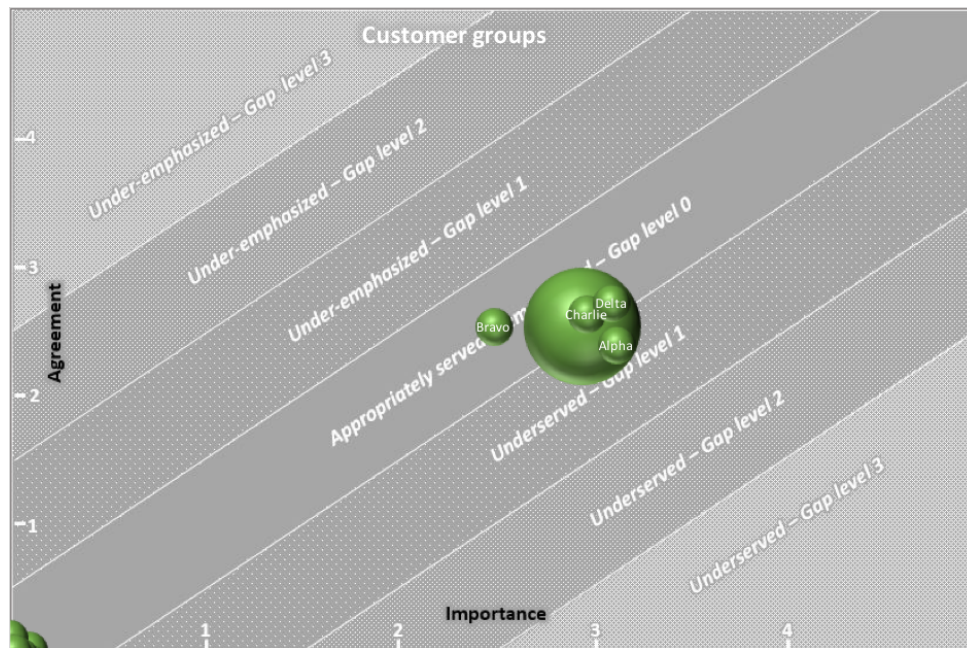


Chart 25. Our customers are broken down into related groups instead of looking at them in a cumulative way

5. Analysis

The empirical findings are used for a statistical analysis in 5.1. Table 13 shows the results in terms of means, standard deviations, discrepancies and number of respondents for every statement.

In section 5.2, the empirical findings are analyzed by using the theory groups from the literature. The possible implications of the findings are also brought up. This is further described. Note that section 5.2 follows the corresponding structure from section 2 and section 4.

5.1 Statistical analysis

The statistical analysis of the survey responses is described in table 13 below.

STATEMENT	AGREEMENT			IMPORTANCE			DISCREPANCY
	MEAN	STD	n	MEAN	STD	n	BTW AGR&IMP
1. Different expertise	3,27	0,67	41	3,31	0,57	39	-1,21%
2. Diverse background	2,66	0,96	41	3,00	0,74	41	-12,84%
3. Highly motivated	3,43	0,70	42	3,79	0,42	42	-10,42%
4. Expectation	2,90	0,79	42	3,38	0,58	42	-16,39%
5. Different measures	3,03	0,83	40	3,05	0,71	40	-0,83%
6. Unity feeling	3,24	0,62	41	3,50	0,63	42	-7,89%
7. Common goals	3,05	0,79	42	3,50	0,59	42	-14,84%
8. Equality	3,10	0,86	41	3,12	0,84	41	-0,79%
9. Try & Fail	3,38	0,76	42	3,69	0,47	42	-9,15%
10. Industrial	2,12	1,06	42	2,56	0,87	41	-20,86%
11. Role specific	2,48	0,83	42	2,52	0,83	42	-1,92%
12. Entrepreneurial failure	2,10	1,03	42	2,50	0,99	42	-19,32%
13. External	3,21	0,87	42	3,14	0,90	42	2,22%
14. Customers & BM	3,14	0,87	42	3,07	0,97	42	2,27%
15. Market adjustment	2,67	0,93	42	3,08	0,86	40	-15,31%
16. Customer behavior	3,24	0,85	42	3,55	0,71	42	-9,56%
17. Visible BM	1,50	0,83	38	2,00	0,95	39	-33,33%
18. Start manually	2,98	1,05	40	3,10	0,85	39	-4,29%
19. Risky BMs first	2,56	0,81	36	2,92	0,76	37	-14,22%
20. Fast BM insights	3,10	0,88	42	3,29	0,81	42	-6,15%
21. Regular BM meetings	2,49	1,12	41	2,79	1,00	42	-11,97%
22. Ratios	2,19	0,98	36	2,36	0,93	36	-7,59%
23. Actionables	2,56	0,94	36	2,78	0,90	36	-8,70%
24. Insights	2,16	1,07	37	2,39	1,10	36	-10,49%
25. Customer groups	2,64	1,06	33	2,94	1,08	32	-11,42%

Table 13. The statistical analysis of the survey responses.

5.2 Analysis of results

Each statement is analyzed separately below. Note that the standard deviation on average is 0.89 for agreement and 0.8 for importance.

5.2.1 Our solution needs many different fields of expertise in order to be completed

Note that the discrepancy (-1.21%) between agreement and perceived importance is negligible, even though the importance is rated higher (3.31). This means that the startups believe that it is of high importance to have complexity in their solutions. This would be beneficial for them by spurring their creativity and hence innovativeness (Denti, 2011; Hammond et al., 2011; Damanpour and Aravind, 2012; Somech and Drach-Zahavy, 2013; Denti and Hemlin, 2016).

As shown in table 13 the startups assessed that statement 1 was 3.27 out of 4. This means that they to a high degree agree that their solution is complex, as it needs many different fields of expertise in order to be done. Hence, taking what Hammond et al. (2011) and Denti (2011) argues into consideration; the ventures in our sample are creative, since their solutions are complex. This should hence, according to Damanpour and Aravind (2012) and Somech and Drach-Zahavy (2013), make the startups in our sample more innovative, as functional differentiation (complexity) is positive to for innovation.

Since the startups in the sample operate in environments with extreme uncertainties (Ries, 2011), the findings are aligned with Denti and Hemlin (2016) who mean that innovative work is usually done in unpredictable environments (changing industries or entering a market with innovative products).

5.2.2 Our team has a great diversity regarding education, background and culture

There is a medium discrepancy (-12.84 %) between how diverse startups are and how important they find it to be for their future success (3.00). As can be seen in table 13, startups are to a medium degree (2.66) agreeing on that they are diverse regarding to education, background and culture.

This might be explained by Kaisa and Müller (2015), who argue that the costs related to diversity in teams (e.g. coordination costs) can outweigh the benefits of heterogeneity. In combination with the complexity of their solutions (as mentioned in statement 1), startups should have the highest potential for innovation since they are both working on complex tasks and are quite heterogeneous (Denti and Hemlin, 2012). The diversity regarding education and background among startups is not as high as Kakarika (2013) states it should be in order to build successful entrepreneurial teams. This might lead to not having the right amount of information to evaluate options and see problems from differing angles (Klein and Harrison, 2007). Having a higher degree of diversity would be beneficial for startups as it would give them more legitimacy from investors, customers and suppliers.

5.2.3 Our team members are highly motivated

The medium discrepancy (-10.42%) indicates that startup members need even more of this intrinsic driving force to overcome the obstacles they face in their work. However, startup teams are to a high degree (3.43) motivated; this helps them overcome obstacles related to their creative and innovative work (Hammond et al., 2011). The high motivation among startups should lead to more individual innovation (Denti and Hemlin, 2016) from team

members. A possible reason for the result can be that startups to a high degree recruit candidates that show initiative and motivational characteristics besides the standard skills, something that Denti and Hemlin (2016) recommend.

5.2.4 Our team members know what is expected from them in their work

Startups have a high discrepancy (-16.39%), showing that startups believe that it is of higher importance to know the expectations than they are actually knowing them. Startup team members know to a medium degree (2.90) what is expected from them in their work. By stating expectations and goals in this rather clear way, startups avoid being inefficient, slow and frustrated (Gabarro and Harlan, 1986). Furthermore, it might lead to the "Pygmalion effect" coming true (Rosenthal and Jacobson, 1968); if the team members are expected to be more creative, the probability of them becoming more creative is increased. Should the objectives and expectations be better clarified than they are now, team creativity and innovation would be even higher (West, 2002; Hammond et al., 2011).

5.2.5 Our team members develop their individual capabilities through different measures

Note that the discrepancy is negligible (-0.83%), indicating that startups are content with the degree they develop their individual capabilities. Startups' team members to a high degree (3.03) develop their individual capabilities through different measures. Current literature recommends entrepreneurial institutions (educations, incubators, accelerators etc.) to encourage this type of behavior (Schwarz et al. 2009; Sánchez 2011; Zampetakis et al. 2015; Teixeira and Forte, 2017) as investing in this is positively connected to productivity, venture growth and innovation (Evans-Raoul, 2013; Holmberg-Wright and Hribar, 2016). Continuously developing the individual capabilities like this is beneficial for startups, as it maintains their competitive advantage (Holmberg-Wright and Hribar, 2016).

5.2.6 Our team members have a feeling of unity with the other members

The low discrepancy (-7.89%) indicates that startups would want to have somewhat higher intra-team unity. A possible reason for the discrepancy could be that there are relationship conflicts (), which could lower the venture performance. However, should there exist relationship conflicts, these are deemed to be small since the diversity (and hence "room for" disagreements in e.g. interpersonal styles, personal tastes or sociocultural norms) is of medium degree (2.66), in combination with the medium-high agreement of unity feeling (3.24). Regardless of this, startups' team members to a high degree (3.24) have a feeling of unity within the teams. This is beneficial for startups as team integrating processes (e.g. a safe psychosocial environment) enable startups to enjoy the benefits of having diversity in the teams (West, 2002). Furthermore, the result indicates that startup teams cooperate efficiently for their collective gain, since they are experiencing a feeling of "togetherness". This leads to an increased team performance as well as an increased individual performance (Denti, 2012) as a unity feeling signals a high level of safety within the group, which is crucial for team creativity and innovation (West, 2002). The result could also explain the high motivation (3.43), since positive relationships with coworkers stimulates innovation by affecting the motivation (Hammond et al., 2011). The high unity feeling also indicates that team members to a high degree feel that the other team members care about them, which leads to a greater meaningfulness about their work. This is positive for the venture since these employees are more probable to engage in innovative practices (Hammond et al., 2011).

5.2.7 Our team members have common goals with the future of the venture

The medium discrepancy (-14.84%) might indicate that the directives might come top-down (employees are told what to do by founders) (Denning, 2014). That the startups' team members to a high degree (3.05) have common goals with the future of the venture facilitates cooperation within the teams (Hülshager et al., 2009) as well as indicates that innovation can be high. A possible reason for this result can be that the founding entrepreneurs have shaped the team members' awareness so that the venture perception has become collectively shared within the firm (Witt, 1998). Aligning the team members' self-identity with the venture's purpose can impact the venture's growth (Yitshaki, 2012) and stimulates team members to take more risks and innovative actions (Moriano et al., 2014).

5.2.8 Our opinions in discussions are valued equally much regardless of whom they come from

The discrepancy (-0,79%) is negligible, indicating that startups are content with the level of opinion listening. Startups are to a high degree (3.10) agreeing to that opinions in discussions are valued equally much regardless of who expresses the opinion. This is a sign of low power disparity in a team, which Kakarika (2013) means is one of the key factors in order to build a successful venture, as it ensures that the venture is democratic and encourages all team members to actively participate. The result is aligned with Bayraktar's (2016) findings in building innovative cultures in entrepreneurial ventures; the venture thought of as "the founder's organization" (and hence listening more to the founder) acts as a barrier to building innovative cultures. The high result also indicates that the teams are not inefficient, as no one in the teams has so much influence that other's ideas are dismissed out of hand, which is especially dangerous when minority opinions are systematically rejected without sufficient exploration (Gabarro and Harlan, 1986). Since team members' opinions are valued to this extent, the ventures are more probable to identify negative aspects of ideas, which they would not do to the same extent with a high power disparity (Bayraktar, 2016). By being this equal, startups avoid suffering decision-making and suffering creative thinking (Conger, 1990, Janis, 1971; Jaussi and Dionne, 2003). This will lead to the team members being more committed to the decisions decided upon, as they have had the possibility to influence group discussions (Gabarro and Harlan, 1986).

5.2.9 Our atmosphere allows team members to try and fail

The low discrepancy (-9.15%) indicates that startups want an even more allowing atmosphere. This can be achieved by startup leaders further increasing their recognition and reward of creative efforts, which inevitably comes with risk taking (Hammond et al., 2011; Denti, 2012). Tolerating these risks instead of exterminating them is the best strategy for this (Denti, 2012). This strategy might be used by startups leaders, as the atmospheres in startups to a high degree (3.38) are allowing team members to try new ideas and fail. This indicates that startups have developed a safe psychosocial climate, which according to West (2002) is required in order for a team to be creative and innovative in demanding contexts. This result, in combination with statement 8, is beneficial to the implementation of innovation as it indicates that startups have "A climate in which it is safe to speak up and take risks [...]" (Somech and Drach-Zahavy, 2013, p.702). This result is furthermore in alignment with Somech and Drach-Zahavy (2013) who mean that it is of importance to innovation that team members feel safe when taking risks. Moreover, startups having this type of atmosphere may further stimulate their team members to engage in innovative behavior (Hammond et al., 2011).

5.2.10 We have industrial experience, gained before we joined the venture

The high discrepancy (-20.86%) indicates that startups are not content with the level of industrial experience they possess. Having a level corresponding to the medium importance (2.56) or at least higher than what startups have now, increases the sales and the survival chances for startups. However, it should be noted that these effects are not linear and may differ with the venture's age (Delmar and Shane, 2006). Furthermore, Usman and Vanhaverbeke (2017) means that having a low degree (2.12) of industrial experience can be a sign of lower credibility amongst the larger counterparts in the innovative network, especially for the implementation of open innovation. The lack of credibility in innovation networks can lead to less successful innovation processes. For instance, troubles in gaining new resources (e.g. funding or know-how) or issues in launching new products to the market can be experienced. (Lundberg, 2013; Soetanto and van Geenhuizen, 2015). This is because networks are central to innovation (La Rocca and Snehota, 2014), which is particularly true for startups (Corvello et al., 2017). Furthermore, as profitability and productivity have a positive relation to the founder's industry-specific knowledge (Castrogiovanni and Ribeiro, 2012), lacking industrial experience can result in less profitable and productive ventures.

5.2.11 We have role specific experience, gained before we joined the venture

The negligible discrepancy (-1.92%) indicates that startups are content with their low degree of role specific experience (2.48) gained before joining the venture. It is unsure to what degree this increases the startups' innovation performance, as the literature is not aligned.

This might enable individuals to come up with creative ideas to solve problems (Amabile, 1983), and henceforth leading to innovative performance (Perkins, 1986). However, this point of view is not supported by Hammond et al. (2011) who cannot find that education and tenure are consistently related to creativity or performance. Hammond et al. (2011) believe it can be, because role experience might not be linear, and suggests that creativity may develop and decline over time.

5.2.12 We have dealt with entrepreneurial failure at any time before the venture

The high discrepancy (-19.32 %) indicates that startups would have wanted to experience more failures in their past. However, an interesting finding is that startups' medium rating of the importance of dealing with failure (2.50) indicate that startups are not completely agreeing with Blank and Dorf (2012) on that failing should be considered an essential part of creating a successful venture. Gabrielsson and Politis (2009) mean that it is more important for startups to have closed a previous business than having critical failures in the process of creating the new venture. In light of this, it is negative for the startups to to a low degree (2.10) have experienced and dealt with entrepreneurial failure from before they engaged in their ventures. This is negative since they might not have developed a positive mindset towards failing, with Gabrielsson and Politis (2009) believing that firms should view failure as something useful and inevitable. Having a negative attitude to failure might lead to the startups not dealing with or learning from future mistakes, and not moving forward in the future (Gabrielsson and Politis, 2009). By instead coping with failures, startups can get valuable learnings and develop the venture (McGrath, 1999).

5.2.13 We get informal advice from people outside our team/board/investors on how to run our venture

The discrepancy (2.22 %) is negligible, but still indicates that startups to a very small degree turn more to their network than they believe is necessary. Startup leaders should thus recommend their team members to communicate even more with their network, even though startups already to a high degree (3.21) get advice from people that are not stakeholders in the venture. This stimulates team creativity since the team members are more likely to get exposed to different perspectives and new information (Hülshager et al., 2009; Hsieh and Kelley, 2016). Getting these advice from people in an external network is a huge asset to the startups (Read, 2017) as it can compensate for the lack of entrepreneurial orientation (Balodi and Prabhu, 2014). In order to stimulate even more innovation, startup leaders should recommend their team members to communicate even more with their network (Hülshager et al., 2009).

5.2.14 The development of our value proposition is driven by our assumptions about our customers or business model

The discrepancy (2.27 %) indicates that startups believe they emphasize a bit too much on hypothesis-driven development. However, this can be negligible as the discrepancy is small. Regardless of this, the development of startups' value propositions is to a high degree (3.14) driven by their assumptions about their customers or business model. This means that startups do not neglect the non-technical aspects of the venture creation processes and can hence be seen as on the right path in their venture creation; focusing on these softer parts is something that Klofsten (2005) means is necessary for the venture creation to "[...] get going [...]" (Klofsten, 2005, p.116). Furthermore, this result concludes that startups to a large degree use the hypothesis-driven approach to entrepreneurship (Ries, 2011; Eisenmann et al., 2013), which "[...] maximizes, per unit of resources expended, the amount of information gained (Eisenmann et al., 2013, p.1).

5.2.15 Our highest goal is, or has been, to adjust our value proposition perfectly to the market

The high discrepancy (-15.31 %) indicates that the startups to a higher degree than now would want to adjust their value proposition perfectly to the market. As of now, startups to a medium degree (2.67) agree that their highest goal is, or has been, to adjust their value proposition perfectly to the market. This means that they to a some degree aim to scale once they reach the perfect product-market fit, i.e. they aim to trim their offering to fit the market, meeting the needs of their targeted customers (Blank, 2007; Eisenmann et al. 2013).

5.2.16 We use real customers' behaviors as guidance for decision making

The low discrepancy (-9.56 %) indicates that startups to a higher degree would want to use real customer behavior as guidance when making decisions, as they believe this to be of very high importance (3.55); it shall however be noted that startups to a high degree (3.24) use real customers' behaviors as guidance when making their decisions. This is in alignment with what the lean startup methodology and the customer development preach, and that Constable (2014) lists as important: "Being told your idea is cool is not useful; seeing behavior that validates your customer's willingness to buy is very useful" (p.29). Based on this result, startups follow what Blank (2007) recommends them to do; the information and facts needed about the potential customers and markets are "outside the building" and have to be experienced by the entrepreneurs themselves in order to understand the potential market (Ries, 2011).

5.2.17 We have our business model visible in our office

The high discrepancy (-33.33 %) indicates that the startups believe it is more important for their future success to actively use a business model, compared to how much they actively work with it today; startups to a very low degree (1.5) have a business model visible in their offices. This means that they in reality do not follow Ries (2011) and Blank and Dorf's (2012) suggestion of using a business model canvas to keep track of the different hypotheses regarding each component, hence not making changes to it when they get more insights. This might hinder the startups' process of pivoting, since using a canvas visualises the venture's different alternatives (Blank and Dorf, 2012). The result also indicates that the startups might have troubles to see what needs to be changed in their business model (Blank and Dorf, 2012). According to Blank and Dorf (2012), not using a flexible business model canvas in favor of a static business plan can be the difference between having to close down and success. Furthermore, the low importance (2.00) means that startup believe it is only somewhat important for their future success. Hence, startups do not agree with current literature on the importance of using business model canvases (Ries, 2011; Blank and Dorf, 2012).

5.2.18 We usually start doing things manually that we later can automate

The discrepancy (-4.29 %) indicates that startups could do even more things manually initially; however as the difference is small, it can be considered negligible. Startups to a medium degree (2.98) do things manually initially, and later automatize them. This means that startups are rather efficient when they see if there is a demand for their solution; by doing this, they avoid putting effort into developing automatic solutions that there is no demand for (Ries, 2011; Graham, 2013).

5.2.19 We test our riskiest assumptions about our business model first

The medium discrepancy (-14.22 %) indicates that startups to a higher degree would want to test their riskiest business model assumptions first. Startups today to a medium degree (2.56) agree that they test their riskiest assumptions about their business model first. This indicates that startups might have untested *leap-of-faith* assumptions that can lead to the failure of the firm; Ries (2011) states that it is a waste of time having untested, risky assumptions, as it might lead to developing a solution there is no demand for. Startups could hence save much time and effort by realizing early on that their idea is not going to fly (Blank, 2007; Savoia, 2011; Blank and Dorf, 2012).

5.2.20 We aim to find insights regarding our business model as fast or cheap as possible

Even though the discrepancy is low (-6.15 %), it indicates that startups would want to come to business model insights faster or cheaper. The reason can be what Ries (2011) describes as the quality challenge; many professionals aim at always building high-quality products, which might hinder them from releasing MVPs. However, as Ries (2011) points out, this assumes having a set business model and known customers; startups have neither, and target early adopters (Ries, 2011; Moore, 1998). Startups agree to a high degree (3.10) that they aim to find insights regarding their business model as fast or cheap as possible. This means they share Savoia's (2011) idea of as quickly and cheaply as possible finding what is the right solution, by e.g. testing "[...] the initial appeal and actual usage of a potential new product by simulating its core experience with the smallest possible investment of time and

money.” (Savoia, 2011, p. 21) or through Ries’ (2011) *minimum viable products*. As Eisenmann et al. (2013) state, this does not necessarily mean through physical products, but by doing the smallest set of activities needed to validate or disprove hypotheses.

5.2.21 We have regular meetings scheduled where we discuss changes to our business model

The medium discrepancy (-11.97 %) indicates that startups to a higher degree would want to approach business model changes in a more structured way. However, startups to a low degree (2.49) agree that they have regular meetings scheduled where they discuss changes to their business model. This result indicates however that startups not fully are taking decisions of business model changes in a structured way, nor fully reflecting over the whether to pivot, persevere or perish (Blank, 2007; Ries, 2011). A side-effect of working this way can be that startups waste time by not dealing with the pivot question, i.e. by postponing the inevitable (Blank, 2007; Ries, 2011). A reason for this can be that it is an emotionally loaded decision (Ries, 2011).

5.2.22 Our key metrics are ratios

The low discrepancy (-7.59 %) indicates that startups would want even more ratio metrics. However; the low importance (2.36) indicates that startups are not agreeing with the lean startup methodology in how to work with key metrics.

Startups agree to a low degree (2.19) that their key metrics are ratios. This result indicates that they use other metrics that are not as easy to act on and that are not as comparative (Ries, 2011). This might make it harder for startups to see clear cause-and-effect of their changes or tests, as non-ratio metrics are typically non-actionable (Ries, 2011; Croll and Yoskovitz, 2013). Not being able to see these cause-and-effects can lead startups to believe they are improving when they in reality are not, and build features that are not changing customer engagement and behavior (Ries, 2011; Croll and Yoskovitz, 2013), leading them to waste their resources (Ries, 2011).

5.2.23 Our aim is to only measure things which we can take action on

The low discrepancy (-8.70 %) indicates that startups would want to focus more on measuring relevant metrics than they are now; startups agree to a medium degree (2.56) that they aim to only measure things they can take action on. This means that startups to some extent are using vanity metrics, which might mislead them in their struggle (Ries, 2011; Croll and Yoskovitz, 2013) by not showing them *how* the customers are using the solutions, or if the customers are engaged in using it.

5.2.24 Our customers are broken down into related groups instead of looking at them in a cumulative way

The medium discrepancy (-11.42 %) shows that startups would want more of cohort metrics; startups agree to a medium degree (2.64) that they use cohorts-based metrics. This shows that they ensure that the team members understand the metrics, as cohorts are easily comprehended (Ries, 2011). However, the result also indicates that startups to some degree might work on features that have no impact on the behaviors of customers.

5.2.25 Our internal productivity is measured in how many insights we get about our business model and not how many hours of work we have done

The medium discrepancy (-10.49 %) indicates that startups would want to work more with learning milestones. However, the low importance rating (2.39) indicates that startups are not agreeing with Ries (2011) that it is important with learning milestones. Furthermore, startups to a low degree (2.16) use learning milestones as a measure of productivity. This can mean that startups are focusing more on optimizing their solutions, which can backfire on them, since the solution can be based on the wrong assumptions (Ries, 2011). The result also means that startups might not have clear plans with what they are building; with learning milestones every product feature is built in order to test an assumption of the business model (Ries, 2011). The side-effect of not doing this can be that startups come to pivot insights later than they could have done.

6. Discussion and future research

In this section, the findings and their potential consequences will be further discussed. Some interesting patterns will be discussed and hypothesized about below. Proposals of future research will also be presented here.

6.1 Analysis discussion

As is seen in table 13, all factors except two have negative discrepancies. This means that startups could practice most factors more than they are doing today. However, only five of the factors have a high discrepancy; the majority of factors have a low or negligible discrepancy. Note that the highest discrepancy (in absolute numbers) is -33.33 %, whereas the lowest discrepancy is -0.79 %. As mentioned in the method chapter, a discrepancy means that there is a difference in how important a venture believes a factor to be for its future success and how much the factor is practiced by the venture. A negative discrepancy indicates that a venture believes a factor is more important to its future success than what the factor is practiced by the venture today. An interesting example could be if a venture rates a factor to be of very high importance for its future success but does not agree that the factor is practiced for the venture. A question that would then arise is why the venture would not go through with something it believes to be of that high importance for its future success.

However, the average discrepancy for the 25 factors is -9.80%. This is a low discrepancy according to the definitions in the method chapter. Further, as the standard deviations of both agreement and importance for this study can be considered low, the author's confidence about the validity of this study is increased. The standard deviation for almost all factors is below 1 (close to 1 for the others, the maximum is 1.12), with the average being 0.89 and 0.80 respectively. This can be considered low in a study where the respondents only can choose integers. The author is thus confident that startups in general have a low discrepancy in what IPLSM factors they believe are important and how much they practice them.

6.2 Rearranging table 13

When table 13 in the analysis is rearranged to table 17 below, with the agreement means in ascending orders, some interesting patterns emerge. In order to facilitate spotting these patterns, a new column has been added. A factor is labeled either "soft" or "hard" depending on what type it is. The soft factors are derived from the innovation psychology literature (due to their focus on human traits and behavior) and the hard factors are derived from *LSM* (due to being more of ways to work as opposed to intrinsic behavior). These patterns are described below.

STATEMENT	AGREEMENT			IMPORTANCE			DISCREPANCY	TYPE
	MEAN	STD	n	MEAN	STD	n	BTW AGR&IMP	
17. Visible BM	1,50	0,83	38	2,00	0,95	39	-33,33%	HARD
12. Entrepreneurial failure	2,10	1,03	42	2,50	0,99	42	-19,32%	SOFT
10. Industrial	2,12	1,06	42	2,56	0,87	41	-20,86%	SOFT
24. Insights	2,16	1,07	37	2,39	1,10	36	-10,49%	HARD
22. Ratios	2,19	0,98	36	2,36	0,93	36	-7,59%	HARD
11. Role specific	2,48	0,83	42	2,52	0,83	42	-1,92%	SOFT
21. Regular BM meetings	2,49	1,12	41	2,79	1,00	42	-11,97%	HARD
19. Risky BMs first	2,56	0,81	36	2,92	0,76	37	-14,22%	HARD
23.Actionables	2,56	0,94	36	2,78	0,90	36	-8,70%	HARD

25. Customer groups	2,64	1,06	33	2,94	1,08	32	-11,42%	HARD
2. Diverse background	2,66	0,96	41	3,00	0,74	41	-12,84%	SOFT
15. Market adjustment	2,67	0,93	42	3,08	0,86	40	-15,31%	HARD
4. Expectation	2,90	0,79	42	3,38	0,58	42	-16,39%	SOFT
18. Start manually	2,98	1,05	40	3,10	0,85	39	-4,29%	HARD
5. Different measures	3,03	0,83	40	3,05	0,71	40	-0,83%	SOFT
7. Common goals	3,05	0,79	42	3,50	0,59	42	-14,84%	SOFT
20. Fast BM insights	3,10	0,88	42	3,29	0,81	42	-6,15%	HARD
8. Equality	3,10	0,86	41	3,12	0,84	41	-0,79%	SOFT
14. Customers & BM	3,14	0,87	42	3,07	0,97	42	2,27%	HARD
13. External	3,21	0,87	42	3,14	0,90	42	2,22%	SOFT
16. Customer behavior	3,24	0,85	42	3,55	0,71	42	-9,56%	HARD
6. Unity feeling	3,24	0,62	41	3,50	0,63	42	-7,89%	SOFT
1. Different expertise	3,27	0,67	41	3,31	0,57	39	-1,21%	SOFT
9. Try & Fail	3,38	0,76	42	3,69	0,47	42	-9,15%	SOFT
3. Highly motivated	3,43	0,70	42	3,79	0,42	42	-10,42%	SOFT

Table 17. Rearranging table 13 with the agreement mean in ascending order.

6.2.1 Soft factors are more practiced than hard factors

It can be seen that the soft factors to a large extent are found in the bottom half of table 17 (medium to high agreement to statements). This might indicate that the soft factors are “easier” for startups to practice, since they mostly relate to positive human traits and behavior (e.g. high motivation, allowing atmosphere, team unity, advice from network). They are arguably easier to execute for everyone, since they by default are more natural to humans in general. Looking at the team unity for instance; humans as animals, Homo Sapiens, are social creatures living in tribes with other members of Homo Sapiens. Hence, feeling united with your team should be something that comes natural for all humans; at least the strive for it should (Harari, 2014).

The hard factors on the other hand, are mostly found on the top half of table 17. A possible reason for this could be that the hard factors are perceived as processes and hence require someone to be responsible for them. If no one is to take responsibility for these processes, chances are that they will not be performed. For instance, if no one is responsible for maintaining the visible business model in the office, it will probably not be done. Another example could be if no one is responsible for scheduling the meetings where changes to the business model are discussed, then it will probably not be done either. A way to validate or invalidate the hypothesis that soft factors are easier for startups to practice than hard factors, could be to do an experiment where the startups are given equally many recommendations regarding soft factors as hard factors. These could be completely other than the ones used in this study. The recommended factors could later be tested in the same way that this study has been performed. Should the soft factors actually be easier to practice by startups, they would most likely have a higher level of agreement than would the hard factors. Furthermore, this hypothesis would explain the large discrepancies that are mainly found in the top half of the table. The average discrepancy of the statements in the top half is -14 % whereas the average discrepancy for the statements in the bottom half is -5.93%. The negative discrepancy means that the startups in the sample believe that the factors are more important to the success of the firm than they are actually practicing them, i.e. they would probably be doing these better if they could.

Furthermore, another reason for the soft factors being more practiced than the hard factors, could be due to a knowledge diffusion gap between the two factor types. Looking at the hard factors in this study's literature part (section 2.14 and onward), the oldest literature reference is dated 2005. The Customer Development proposed by Blank (2007) was published for the first time in 2005; the first time the Lean Startup (Ries, 2011) was published was in 2011. As Mansoori (2017) states, a growing number of entrepreneurship programmes have the last years started favouring the lean startup methodology over traditional business approaches. This could be a sign of that it started to diffuse to society recently. Looking at the soft factors on the other hand, the literature is overall older; in some cases, it dates back to the 1980s. It can hence be assumed that that type of literature has had time to diffuse to society. A hypothesis regarding why the hard factors are less likely to be practiced than their softer counterparts could hence be that the knowledge about the hard factors has not managed to be diffused to the rest of society yet, since the LSM is very young. Furthermore, due to the young age of the LSM, it has not yet been scientifically proven to correlate to successful ventures. Blank's (2007) book is based on startups he himself was involved with, hence too small of a sample, and so is most of Ries' (2011) book). This could also affect the propensity of practicing the LSM; it can be argued that people in general would rather try the solutions that they know for sure work. A way to validate or invalidate this hypothesis could be to do a simple fact check among startups; the different theories presented in the literature could be turned into a quiz, testing the ideas behind every theory. The results could then be compared for the hard and soft factors; the one with the higher score could be considered the one that startups in general have more knowledge about.

6.2.2 Lack of experience

An interesting finding is that the soft factors regarding experience (industrial, entrepreneurial and role specific) are ranked as low agreement (industrial: 2.10, role specific: 2.48 and entrepreneurial: 2.12). Their perceived importance for success is (in this context) also fairly low (2.50, 2.56 and 2.52) seeing that understanding the customer segment's real problems is important for actually addressing the right problems, something that experience would enable. Nevertheless, these findings may be a result of that "startup people" are typically young and inexperienced; many of them may still be in the university, have dropped out of their studies, or started working with the startups immediately after graduating (the average age of the persons interviewed in the ten startups interviewed is 26.4 years and all of the people interviewed fit either to one of the three previously mentioned categories). Since most startup people are young, inexperienced and have not failed before, they might perceive these factors as less important due to their ventures still being alive (having a mindset of "We are inexperienced but we made it this far"). It can be hypothesized that if the sample was made up of serial entrepreneurs that had failed many times, the importance mean would be higher. A way to test this hypothesis could be by sending the survey used for this study to serial entrepreneurs only. Furthermore, there does not seem to be any differences between the age groups either.

A potential reason for why the soft factors regarding experience are rated less may be that the fields the startups are working in might be completely new, hence it being rather less likely to have the industrial experience gained from before. This hypothesis can also be used for the role specific experience; if a startup has developed a completely new technology, or found out how to do things in a new way, it might be less probable to have a role specific skill set that matches these new ways of working. However, this hypothesis would not support the lack of entrepreneurial failing. This hypothesis could be tested by evaluating the "novelty" of the startups' products or solutions. Another hypothesis which could explain the lack of role specific experience and the perceived medium importance of it, can be that startup team members have to be "Jack-of-all-trades" since the ventures assumably do not have many resources and need to solve everything in-house. Everyone have to take multiple roles, hence doing things that they are not used to. A way to test this hypothesis could be through

deep-interviews with startups' team members, in order to see if their experiences match what they are doing on a normal day at work.

Elaborating on the lack of experience among startups could explain many of the other factors, e.g. the large discrepancy (-16.4 %) for what is expected of team members in their work. Since the members of the startups are inexperienced in the industry, they might not be completely aligned with what gap they are trying to fill with their solution. Further, their lack of entrepreneurial experience may lead to team members not being aware of what is the "next step" for their startup, leading to less independence amongst some team members. Furthermore, the startups' propensity to get informal advice from their team members' networks might be a result of this lack of experience. It can be argued that people that are not sure what to do (expectations) ask someone they think that knows (informal advice). Furthermore, the atmosphere allowing team members to try and fail can be a reflection of the lack of entrepreneurial or industrial experience from before. The co-founder in Charlie 11 states:

"None of us had run a business before, so we couldn't really have doubts. None of us could go like "No way, I doubt your competence in this area". Because the answer was, of course, we are students. No one knows anything."

Since most team members are inexperienced, it can be hypothesized that there are not many, or very few, in the team being against an idea simply because they know more in the subject. This would allow team members to actually try their ideas. Furthermore, that opinions are valued equally much in discussions supports that the atmosphere allows team members to try and fail.

Furthermore, some of the interviewees believe that the founding teams lack of industrial expertise actually has been positive for them, which the three quotes below illustrate. They mean that had they known from the beginning how hard it would be to go through with their ventures, they would probably never even have started. A hypothesis could thus be that not having much industrial experience could be beneficial in some contexts. This hypothesis could be tested through doing deep-interviews with many startup founders.

"That we've been naive. Three years ago we thought that we'd be further than we are now but being naive has helped us and makes us continue. If we'd known that it'd take 7 years we would never have done this" - Co-founder in Bravo 32

"First of all, everything takes so much longer time than you expect it will take. But that might be stupid to tell yourself, because that might scare you off from starting the venture. Maybe you wouldn't go through with it at all if you knew." - Co-founder in Bravo 19

"Characteristics.. A naivety that I think has been positive. We had no idea how hard this would be, we thought that we'd be ready in six months but now after 2.5 years we are far from done. And if we would have known from the beginning, we would never have done it. I think it's good to be a bit stupid in the beginning. I would say all of us carry that trait" - Co-founder in Bravo 19

6.2.3 Prioritization problems

Even though the startups' team members agree that both testing the risky assumptions first and having meetings scheduled about business model changes are true for their ventures to some extent, there are medium discrepancies for both of them (-14.2 % and -12% respectively). This might mean that startups have issues prioritizing what is important for

them to do. This would furthermore explain the high discrepancy team members of knowing expectations on them (-16.39%). It can be hypothesized that these three factors are interrelated; team members ought, to a higher degree, know what is expected from them in terms of what they should do henceforth, but if there are no clear meetings where the assumptions can be discussed, the prioritizing gets harder for the team member.

6.2.4 Medium diversity

Even though the solutions to a high degree (agreement 3.27) are dependent on many different fields of expertise in order to be completed, the actual level of diversity in the teams is not correspondingly good (agreement 2.66). This difference is fascinating as a startup actually can get around low diversity by hiring people with different backgrounds, which is not the case for the startups in our sample. The co-founder in Alpha 7 says in the interview:

“It is hard enough running a startup, and if you get friction because you don’t go together well.. It will cost more than it tastes”,

This might be a possible reason; that startups usually employ people that are alike in order to avoid friction between team members. This would be in alignment with Kaisa and Müller (2015). Another possible reason could be that they are limited by their network when it comes to recruiting; if a founder has studied marketing, recruiting marketing peers should be easier than recruiting programmers. The field of study per se might not be the determining factor; it might rather be that the her/his network is limiting the founder. It can simply be that it is easier for a marketing alumni to recruit a marketing peer since that person might be a friend of a friend, hence passing the first screening of being a person that is easy to get along with. That person could also through friends have heard that the venture is recruiting. A programmer on the other hand, could have a harder time passing the first screening due to the lack of evidence of being a person that is easy to get along with. Furthermore, the programmer might not even hear of the possibility to work with the venture, since s/he has no friends-of-friends that are related to the marketing alumni. A way to test this hypothesis could be through looking at the interpersonal relationships (networks) between the team members in different startups and also compare if the team members have been part of the founders’ networks from before.

Should these hypotheses be true, a recommendation for startup founders would be to try to network with people outside their regular network. For instance, they could go to other career fairs than the ones they usually attend or arrange mingle events in institutions they do not have any ties with.

6.3 Filtering away soft factors

Another interesting finding, in line with what has previously said of the startups’ propensity to practice the soft factors, is that when filtering away the soft factors to get table 17 below. That there seems to be a tendency among startups’ team members to agree to the hard factors that are “fuzzier” is further supported by table 17.

STATEMENT	AGREEMENT			IMPORTANCE			DISCREPANCY	TYPE
	MEAN	STD	n	MEAN	STD	n	BTW AGR&IMP	
17. Visible BM	1,50	0,83	38	2,00	0,95	39	-33,33%	HARD
24. Insights	2,16	1,07	37	2,39	1,10	36	-10,49%	HARD
22. Ratios	2,19	0,98	36	2,36	0,93	36	-7,59%	HARD
21. Regular BM meetings	2,49	1,12	41	2,79	1,00	42	-11,97%	HARD

19. Risky BMs first	2,56	0,81	36	2,92	0,76	37	-14,22%	HARD
23.Actionables	2,56	0,94	36	2,78	0,90	36	-8,70%	HARD
25. Customer groups	2,64	1,06	33	2,94	1,08	32	-11,42%	HARD
15. Market adjustment	2,67	0,93	42	3,08	0,86	40	-15,31%	HARD
18. Start manually	2,98	1,05	40	3,10	0,85	39	-4,29%	HARD
20. Fast BM insights	3,10	0,88	42	3,29	0,81	42	-6,15%	HARD
14. Customers & BM	3,14	0,87	42	3,07	0,97	42	2,27%	HARD
16. Customer behavior	3,24	0,85	42	3,55	0,71	42	-9,56%	HARD

Table 18. Filtering out the soft factors from table 18.

In order to illustrate this, the author compared the top three factors with the bottom three factors. Even though all the hard factors are ways of working, i.e. processes, the top three are more tangible. For instance, should the author enter the startups' offices when no team member is around, he could easily see if they have visualized their business model canvas anywhere in their offices. The author could also see if their key metrics seem to be ratios, or if they split their customers into cohorts. However, in order to get an answer for the bottom three factors, the author would have to await the team members, as these are intangible.

6.4 Comparison with large companies

Comparing this finding to table 16 in appendix 7, which shows the results from a similar study done on large MNCs (albeit with a different framework than what has been used for investigating startups), an interesting difference can be spotted. Large companies have a much higher discrepancy between what they perceive is of importance and what they practice (-54.78 % on average); the discrepancy for large companies is hence almost five times bigger than the discrepancy for startups. Looking at the extreme values for MNCs, it can be seen that the highest and lowest discrepancies are -107.45% respectively -14.67%. For almost all factors, MNCs perceive that the factors are of high importance. However, they still do not agree on that these factors are practiced by their firm. This is further illustrated in table 16. It is hence reasonable to assume that there is something that is hindering the large companies from going through and practicing the innovative activities that they do know exist. Pfeffer and Sutton (2000) propose some reasons, calling this the knowing-doing gap: (1) instead of taking actions, time is wasted on making Powerpoint slides, reports and statements, (2) stuck in the old habits of "this-is-how-things-are-done-here" and (3) that employees are afraid of failing due to the personal risk this comprises.

It is hence *not* that the large companies do *not know* what activities are innovative; it is rather that they *are somehow hindered to practice* these innovative activities, perhaps by the factors Pfeffer and Sutton (2000) mention. Startups on the other hand, do not seem to have the hindering restraint that large companies have. Hence, startups *can practice* these innovative activities - if they *want*. This means that startups, to a high degree, actually do what they perceive is important.

A hypothesis can hence be that convincing a startup to work in a certain way, might actually work. The startup will not have anything hindering it; it just has to make sense to the team members. This hypothesis can be tested by giving many startups different recommendations on how to work, and afterwards measure how the convincement rate affects if the recommendations are actually lived up.

6.5 Hypotheses regarding the different groups

Below, attempts to create profiles based on the graphs where the Alpha, Bravo, Charlie and Delta startups have been sticking out. Note that these are based on hypotheses and will need to be validated or invalidated in the future. The hypotheses are based on how these startup groups have responded to the survey. Further note that since there are many graphs where none of the mentioned groups stick out, this part does not follow the structure of the rest of the study (with corresponding statements).

6.5.1 Our team has a great diversity regarding education, background and culture

The Alpha startups (2.20, 3.20) have a large discrepancy (-45 %) in diversity. This is in alignment with what the literature says (Kaiser and Müller, 2015), that startups to a beginning are homogeneous. This finding would add another dimension to this; startups' team members in their initial phase wish to be more heterogeneous, but there is something that holds them back from being so. A possible reason can be that startups initially recruit in their network. Furthermore, the Delta startups (2.33, 3.00) also have a large discrepancy (-29%) in diversity. What is interesting with this finding is that the Bravo and the Charlie startups have relatively low discrepancies (-8 % and -13 %, respectively).

It can be hypothesized that startups' team members initially (like the Alpha startups) feel they need to be more heterogeneous because there are many elements they lack in the teams initially (knowledge, skills etc.). If the ventures survive a couple of years, it is probable that the team members have acquired these knowledges or skills in some way. When it is time to scale up (like the Delta startups are more probable to do, compared to the others, due to their maturity), it can be that the team members feel that the ventures lack the "administrative" people needed for scaling up (financial, recruiting, dealing with authorities etc.).

6.5.2 Our team members are highly motivated

The Alpha startups (3.33, 4.00) stick out with that they are the only ones believing that having highly motivated team members is very much important for a successful venture (it shall be noted that the others also rate motivation high though). Continuing the hypothesizing of the Alpha startups, it can be argued that they believe this since they compensate for their lack of knowledge/skills (derived from a lack of diversity), i.e. they believe that they can overcome the knowledge/skills they lack by being even more motivated.

6.5.3 Our team members develop their individual capabilities through different measures

The Alpha startups (3.40, 2.30) stick out as their team members to a larger extent develop their individual capabilities, even though it is not deemed so important by the Alpha startups. A possible reason could be that since these startups are younger than the other startups, their team members have to initially develop more capabilities since there are more things that are unknown to them.

6.5.4 Our team members have common goals with the future of the venture

Even though this statement to a large degree is true for the Bravo startups (3.06, 3.73), the Bravo startups stick out due to their high rating of the importance. Hypothesizing, it could be

that these startups are relatively young (1-3 years) and just have started to experience that the team members have different wills and reasons for being in the venture.

6.5.5 Our opinions in discussions are valued equally much regardless of whom they come from

The Alpha startups (3.00, 2.67) stick out since they rate the importance the lowest. This could indicate that they to a higher degree believe in that their strong founders have more to say, i.e. perhaps being more top-steered than the others.

6.5.6 Our atmosphere allows team members to try and fail

Alpha startups (3.75, 3.83) have a more allowing atmosphere than the others. A possible reason could be that, in combination with the previous statements, Alpha startups lack diversity and try to compensate for this with their high motivation and developing their capabilities. It can thus be assumed that the Alpha startups team members to a higher degree try things that is not on their “home court”; team members need to do things they are not used to since they with their current capabilities are limited and would hence not get anything done otherwise.

6.5.7 We have industrial experience, gained before we joined the venture

The Alpha startups (1.75, 2.33) stick out with their lack of industrial expertise. What is interesting is that the oldest group of startups, the Delta startups (2.50, 2.83), agree to a medium degree that their members have prior industrial expertise. Since there is an age difference between the groups (0-1 year versus more than five years), it can be hypothesized that startups that started at the same time as the Delta startups, and that had low prior industrial expertise, might have ceased to exist after more than five years. A way to test this hypothesis can be to do this study in a couple of years and see which of the Alpha startups are still alive.

6.5.8 We get informal advice from people outside our team/board/investors on how to run our venture

In combination with previous findings, this finding further strengthens the hypothesis that Alpha startups (3.58, 3.42) to a very high extent are lacking experience; since they do, they to a larger extent have to rely on their network, furthermore believing this is more important than what the other startups do.

6.5.9 The development of our value proposition is driven by our assumptions about our customers or business model

An interesting finding is that, even though Delta startups (3.50, 3.67) agree the most to the statement, they are the only startups that believe they could do even more of this (-4.76% discrepancy). It can be hypothesized that the Delta startups through their age have had experiences where they learned that “pushing out” a solution does not work, and that there has to be a demand for a solution in order for it to be successful.

6.5.10 Our highest goal is, or has been, to adjust our value proposition perfectly to the market

The Alpha startups (2.08, 2.83) stick out since they to a low degree are aiming to find a product-market fit, even though they believe it to be of medium importance for their success.

This could be an indication of that the young Alpha startups are currently trying to see if they can get any traction with their current idea and not as interested in changing and adapting. This can be considered pushing out their technology. A hypothesis could be that the Alpha startups have not yet realized that they have to adapt to their customers, and not the other way around. The other startups on the other hand (Bravo, Charlie, Delta) to a higher degree (2.73 and more) are trying to find the perfect product-market fit. A possible reason for this can be that they have invested much time in the ventures and come to understand that the venture has to adapt its value proposition to the customers. Furthermore, another hypothesis can be that the Bravo, Charlie and Delta startups are more serious in their work with their ventures since they have invested more time in them (they would have “wasted” more time if the ventures fail).

6.5.11 We have our business model visible in our office

For the Alpha startups (1.33, 1.33), Bravo startups (1.28, 1.95), Charlie startups (1.33, 2.11) and Delta startups (2.17, 2.50), an interesting finding is that the perceived importance is increasing with the age of the venture, even though the actual agreement does not do this to the same extent (excluding Delta).

This might indicate that the older startups to a higher degree need to go through their business models, or at least think them through so that all the team members share the same perception. It can be hypothesized that the reason for this is that the older startups (Bravo, Charlie and Delta) to a higher degree are trying to find the perfect product-market fit (as described in statement 15) and hence in more need of external capital or advice. Reasonably, this would require the older startups to present their value proposition and business models to venture capitalists or incubators.

A possible explanation for why the agreement ratings are so low amongst Alpha, Bravo and Charlie may be that the startups in these earlier phases are more fast-moving. As argued in 6.2.1, it would require someone to be responsible for the business model which might be hard since it is changing rapidly. The Delta startups on the other hand, as they are more mature and hence more probable to scale up, can be hypothesized have already had their fast-moving phases and have more cemented business models.

6.5.12 We usually start doing things manually that we later can automate

The Delta startups (3.33, 3.17) stick out being the ones that to the highest degree start manually and later automatize. It can be hypothesized that since the Delta startups have been around for the longest time (more than five years), they have learned how to efficiently manage their resources. This would strengthen the motivation of their high rating of statement 14, and indicates that they to a larger extent are more efficient than the other startups.

6.5.13 We test our riskiest assumptions about our business model first

It can be hypothesized that Alpha startups (2.08, 2.75) are not aware of what their riskiest assumptions are due to the previous hypotheses; they are trying to push their technology out, lack expertise and do not have a good overview of their business model, and hence they are not able to properly test them. It can be argued that the Alpha startups have a “build it and see what happens”-mentality (Ries, 2011). Working in this unstructured way might lead them to working without an intention and goals, hence not knowing if they are doing well or not.

6.5.14 We have regular meetings scheduled where we discuss changes to our business model

An interesting finding is that the Alpha startups (2.60, 2.58) are content with their level of scheduled meetings, whereas the others have quite some discrepancies (-11.71 %, -15.79 % and -14.29%, respectively). A possible explanation could be that the Alpha startups (as already hypothesized) are not working as structured as the other startups. Since the Alpha startups are in the beginning of their venture creation, their team members have to do more changes to their venture's business models and hence have more cases of “fire extinguishing”. This could mean that the Alpha startups have meetings where they discuss changes to their business models - the meetings are just not scheduled and are decided on the spot.

Another possible reason can be that the Alpha startups' team members lack industrial expertise to a higher degree than the other startups' team members (see statement 10). Hypothesizing on this, it could mean that the Alpha startups' team members are not used to work in a “real” office setting, hence not used to scheduling meetings etc.

6.5.15 Our key metrics are ratios

The Alpha startups' team members (1.60, 1.60) are not concerned of their lack of ratio metrics; the contrasts are quite big to the Delta startups' team members (1.75, 2.50) who have a discrepancy of -42.86 %. A possible explanation for the 0% discrepancy might be that, in combination with previous hypotheses, since the Alpha startups' team members are young and not as structured as the other startups' team members, it can be assumed they use a lot of metrics that most likely are not useful to them. However, that the majority of the current metrics are not useful to them, is not an insight yet. What makes matters even more interesting is that Alpha startups have a large discrepancy (-29.17 %) for statement 23; this further strengthens the hypothesis about the Alpha startups' team members not knowing what metrics are useful to them. It seems to be though that they are not aware that key metrics could help them have more actionable metrics.

6.5.16 Our aim is to only measure things which we can take action on

In combination with statement 22, it can be assumed that Alpha startups (2.40, 3.10) to a large degree do not use metrics that are useful to them since they do not know what they actually need to measure (this can be derived from working in a rather unstructured way).

6.5.17 Our internal productivity is measured in how many insights we get about our business model and not how many hours of work we have done

An interesting finding is that Delta startups (1.80, 2.50) have the highest discrepancy (-38.89%) and also the lowest agreement rate. A possible reason for the low agreement rate can be that the Delta startups are more likely to be in or close to the scaling stage. The insights have in this stage already been found, and it is more about execution of the business model scaling rather than business model discovery (Ries, 2011; Blank, 2007). This would however not explain the large discrepancy.

6.5.18 Our customers are broken down into related groups instead of looking at them in a cumulative way

The Alpha startups (2.38, 3.13) has the highest discrepancy (-31.58%), which might be a result of the unstructured way of working with metrics. It can also be because of other, more natural reasons, e.g. that Alpha startups due to their novelty do not have as many customers, hence not being able to split them down in related groups.

6.6 Future research

The author recommends that the findings of this study are used in a future study in order to see what factors in the IPLSM factors are actually correlated to a successful performance. As the framework is made up of both positive and negative matches according to the definition in section 3.5 and, as some of the factors as shown are practiced to a very little degree by startups, it would be highly interesting to see if any of these factors are more important than others in order for a startup to be successful. It could perhaps be that some of the most practiced factors do not affect the performance at all; or that the least practiced factors actually do affect the performance positively. The results of the proposed future study could be of great value for venture capitalist firms, banks or startup accelerators.

The proposed future study should ideally use a multivariate analysis of some sort. However, in order to be able to get generalizable findings, the sample needed will have to be much bigger than the one used for this study. It is hence recommended that a pre-study identical to this master's thesis should be performed in order to get a larger sample. Ideally, more startup accelerators are reached out to.

Furthermore, the future researchers will have to decide on what definition should be used for a "successful performance", as this can vary across startups. Some startup founders find having a startup that is running in the background, with low revenues but that does not need any operational involvement, as successful; this allows them to focus on creating new startups without having to worry about money. Another issue that might arise is that some of the startups might be bought by incumbents; the performance of that startup will be counted into the balance sheet of the incumbent, hence not being traceable. Is this still considered a successful performance? The author believes that a good indicator of a successful performance in, for instance, ten years from now, could be: if (1) the startup is still alive, as it can be assumed that it is making sufficient revenues or (2) if the startup has been bought by another firm.

In appendix 5, hypotheses have been made about some of the ventures that responded to the survey. The hypotheses were made since these ventures' responses stuck out compared to their peers' responses and concern the characteristics of the venture, and what implications these might have to the venture in the future. In order to validate or invalidate

these hypotheses, deep-interviews would have to be done with the team members of the ventures hypothesized about.

7. Conclusion

As discussed, the average discrepancy for the 25 IPLSM factors is -9.80%, which can be considered a low discrepancy. However, in relationship to the average discrepancy for large companies (-54.78%), startups are much better at practicing what the factors they perceive are important. This might be because of the large companies' knowing-doing gap, or be related to the size of their organizations.

It can thus be concluded that startups in Sweden in general have a low discrepancy between the IPLSM factors they perceive are important for success and how much they practice them. It can safely be assumed that Swedish startups would practice these factors a bit more than they are practicing them today, but that they in general are quite content with the level they practice the factors. Furthermore, startups seem to have a propensity for practicing the softer factors, which is illustrated in the tables in the discussion chapter. Moreover, attempts have been made to create profiles regarding the startups surveyed. These are hypotheses based on the responses that have stuck out in the survey and should be tested in the future. To conclude, a future study should look into which of the IPLSM factors correlate to successful performances for startups; the IPLSM framework proposed will add even more value to the academia and industry if this is done.

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Appendix A

1. Interview template

Below is the template used for interviewing the co-founders of the ten startups. Note that these were mere guidelines; the interviews also covered other topics, depending on what topics the interviewee found important.

[ice-breaker]

Introduction to why the author is conducting this interview; letting them know that the author is trying to find an IPLSM framework and needs the input from startups in order to find the most important and interesting factors.

[telling them about the structure of the interview; length, anonymity etc.]

Questions:

- Tell me about your venture
 - Elevator pitch
 - Idea origin
 - Product optimization vs. business model building?
- Financials
 - Without mentioning any numbers, can you briefly walk me through your money flow? (bootstrapping, VC investors, incubators etc.)
- Knowledge
 - Tell me about the relevant knowledge you had with you when starting this venture
 - Why do you think you have a possibility to succeed?
- Personality
 - Tell me about team members' personality traits that have been important for you
- Team
 - Tell me about the team unity
 - Tell me about how you see on experimenting and failing
 - Is everyone's opinion worth equally much when discussing matters?
- Lean Startup + Customer development
 - Tell me about the purpose of your startup
 - Tell me about how you work with your business model
 - Tell me about if you use hypotheses
 - Can you tell me about how you work with testing things related to your business model?
 - Tell me about your metrics
 - Why are these the "right" things to use?
 - Do they make you change?
 - Tell me about how you measure productivity
 - Tell me about how your venture grows
 - Tell me about how you work with
 - How often do you discuss if you should change your business model?
 - Has anyone influenced you to use the lean startup methodology?
- Frameworks
 - Tell me about if you use any frameworks or methods when solving a problem or discussing ideas
- Support

- Tell me about all the type of help you have received (professional/unprofessional)
- Self help
 - Can you tell me how you have learned what and how to do in creating a new business?
- Development
 - When looking back on your journey, which factors have been the most important for you?
 - Tell me about if you have done any major changes?
 - Have you ever thought of giving up?
 - Tell me about the factors that have not been important or been dangerous to you
 - Tell me about what you have failed with
- The future - if you would start a new venture tomorrow
 - What advice would you give yourself?
 - What do you believe would be your team members' strengths?
 - What is the first thing you would do with your venture?
- Is there anything you would want to share with me, thinking of the subjects we have covered in this interview?

2. Constructs

- -- BMC is only good when the venture is not yours
- Used parts of BMC
- Does not use BMC (initially maybe)
- Canvas helps to communicate vision in structured way to whole team/others
- Changes to product
- Common goals and vision with the venture
- Good understanding of problem
- Important to clarify administrative parts prior to starting
- Wanted to build a successful venture
- Will to always keep inventing ("we're not satisfied")
- Should have invited customer much earlier
- LSM first method to think of
- External factors changing the industry, uses this
- Experienced the problem themselves
- Wanted to create venture
- Idea originated from something else
- -- Didn't help with support from incubators/accelerators
- Support from incubators/accelerators
- People with expertise surrounding that they can ask
- Network of entrepreneurs surrounding which has given advice
- Iterative work
- -- Not iterative work
- Dependency to partners
- Customer segment changes
- Experimented with revenues
- -- No regular meetings on to discuss future of business model
- -- No structured way of approaching problems
- -- Product development drives the venture
- -- Avoids "All eggs in the same basket"
- People's opinions matters
- Structure and consistency
- Copy as much as possible of how others do things
- Customer insight driven
- -- Founders have more insights and therefore have more to say
- Important to understand limitations in the technology
- Hypothesis driven
- Do things manually initially that can be automated later
- Important to allow to fail
- Selling something that doesn't exist and developing afterwards
- Importance of sales
- Important that people own their own processes
- Important to let people be independent
- -- Poor data from the beginning
- Metrics help people forward
- -- Do not measure productivity in validated learnings
- Important to have trust in the team's ability
- Inner will to build and deliver
- -- Non-realistic in time estimations
- Important with loyalty to the team
- Important to coach and acknowledge
- -- Uses vanity metrics
- Cohorts used
- Engagement

- Team spirit is important
- We complement each other
- Important with sharp team players
- Important to enjoy working with colleagues
- --Not frightened by low or non-existing technical expertise
- Prior entrepreneurship
- -- Hard to use LSM testing
- Uses/has used LSM testing
- --Not followed LSM
- Have some basic/general knowledges that we are good in (writing, talking etc.)
- Handles setbacks
- We are self-confident in what we do
- -- Had no/very low prior industry experience
- Positive and happy
- Not afraid of making errors
- Are driven
- Have a will to develop abilities
- Read self-help entrepreneurial books before
- Underestimated the time/effort it would take
- Perseverance - do not give up

3. Email template

The template used to send emails to startups. The English version is below the Swedish one. Note that ARSSO is another renowned startup accelerator in Sweden.

Hej [STARTUP],

Vi har fått ditt namn och emailadress av Y, som stödjer oss i vår undersökning som omfattar utvalda startup-bolag främst från RSSA och ARSSO. Undersökningen är anonym och går fort att göra. Ni kommer senare få ta del av det färdiga resultatet.

Vårt syfte med studien är att hitta de minst och mest viktiga respektive de minst och mest utförda framgångsfaktorerna bland startups.

I självskattningen kommer ni få se påståenden rörande ert dagliga arbete och vi vill att ni:

1. Utvärderar hur mycket du håller med om att påståendet beskriver situationen i ert startup (1 = Jag håller inte alls med, 4 = Jag håller med till fullo)
2. Utvärderar hur viktigt du tycker att påståendet är för er framgång, OM påståendet vore sant (1 = Inte alls viktigt, 4 = Väldigt viktigt)

Studien är en del av ett examensarbete på MEI-programmet på Chalmers och er medverkan är helt anonym. Ni kommer dock bli ombedda att skriva namnet på ert startup och er email-adress. Detta är för att vi ska kunna separera vad de olika startup-bolagen har svarat. Information rörande er identitet kommer inte presenteras i det färdiga examensarbetet eller i någon presentation av något slag. Tanken är att vi ska följa upp med en ny studie om 3-5 år och jämföra hur bra det har gått för de deltagande startup-bolagen, samt korrelera detta till resultaten av den här utvärderingen. Vi kommer kontakta er då för godkännande att vara med i korrelations-studien.

Ni kommer få en summering av era svar jämfört med genomsnittet av andra startups när vår undersökning är färdig i december.

Vi vore hjärtligt glada om ni hade kunnat svara omedelbart eller i alla fall innan 10 november.

Klicka på länken nedan för att komma till enkäten.

<https://goo.gl/forms/dXCGKSfBSNnbyHEj1>

Med vänliga hälsningar,
Bengt Järrehult (adj. professor, Chalmers)
YlIdrin Halili (MEI-student, Chalmers)

[ENGLISH]

Dear [STARTUP],

Your company has been recommended by Y who supports us in a quick and anonymous assessment among startups, primarily from RSSA and ARSSO. It will take just a few minutes and you will of course have the aggregated results.

The purpose is to find out the least and most important success factors respectively the least and most applied by startups.

In the assessment you will be see statements regarding your daily work and we would like you to:

1. Rate how well you personally agree that the statement describes the situation in your startup (1= I do not agree at all, 4= I fully agree)
2. Rate how important you think that the statement would be for the success of your startup IF the statement was true (1= Not important at all, 4= Very important)

The investigation will be part of a Master's Thesis in the MEI programme at Chalmers. Your contribution will be fully anonymous, although you will be asked to state the name of your company and your email address. This is for us to be able to separate what the different startups have answered. The information will not be presented in the ready master's thesis or in any presentation of any sort. The idea is also that we will follow up this study in 3-5 years and compare how well the participants have made it in their startups and correlate this to the results of this assessment. We will contact you then for approval to use your results in the correlation.

You will be presented with a summary of your own answers compared with the average of other startups when the performing investigation is done in December.

We would be so happy if you respond immediately or at least before the 10th of November.

Press the link below to get to the survey.
<https://goo.gl/forms/dXCGKSfbSNnbyHEj1>

Best regards,
Bengt Järrehult (adj. professor ChalmersI)
YlIdrin Halili (MEI student, Chalmers)

4. Survey feedback

In the end of the survey, the respondents had the possibility to add feedback regarding the survey or write deeper about a certain topic. The responses can be found below:

- I felt many of the questions don't apply to a pharma startup where you have one product (patent) and a very limited set of potential customers (big pharma actors with access to a specific molecule) Hope you still get something out of our answers.
- We try not to work with assumptions. We need to make the assumptions into facts as quickly as we can.
- I do not fully understand every question / Applies to us
- "Some questions in the end I believe was primarily aimed at typical B2C SaaS business where it's generally much easier to measure cohorts than in our industry for instance digital health B2B with a medical device where it can take a lot more time to get a clear answer whether this actually is a viable route to go. So I had a hard time answering some of the last questions regarding metrics, dunno if you can make the questions though so you can incorporate both b2c saas business and ours. Otherwise, very good questions.
- Some questions do not apply to a hardware company according to me.
- Focus on sales and revenue could have been a topic.
- I think that the most important factor for startup is the ability to focus when facing many areas with low resources.
- Related to testing assumptions about value propositions with customers: my experience so far is that in the products where we have been able to partner up with customers where we can be transparent about the immaturity of our product and they can be transparent about real problems in their operations we have been able to find really crisp value props and selling arguments.

Appendix B

5. Company level - interesting graphs

In this part, hypotheses have been made about the ventures based on the survey answers that have stuck out the most. Attempts have been made to create profiles of the ventures.

Alpha startups

Some hypotheses have been made in order to make profiles for the Alpha startups that stuck out in the graphs.

Alpha 7

The co-founder of Alpha 7 was one of the interviewees. The venture was also one of the ventures sticking out the most amongst the Alpha ventures. Some of the findings from the interviews may help explain some of the replies to the survey, for instance that the venture is using a technology already created by Epsilon X, a startup founded by one of the co-founders of Alpha 7 but in another context. The business models will however be very similar. The Alpha 7 team members are thus tweaking the technology to fit them, rather than developing it from scratch. It shall be noted that Epsilon X has started its scaling and is now operating internationally. It thus has a proven track record. See the relevant quotes from Alpha 7 in the end of this subsection.

A hypothesis is that the members of Alpha 7 have a very clear roadmap of go-to-market since they can do the same things as Epsilon X that created the actual technology is doing. The hypothesis can be backed by that the Alpha 7 team members to a little extent think their solution is complex in order to be completed. This is understandable, since the technology was developed and tested by other developers; the Alpha 7 team has thus not experienced the creation of it and most likely does not understand the complexity of their solution. Furthermore, the Alpha 7 team members rate that opinions are not valued equally in the venture, nor is it important. Assuming that the venture has a very clear roadmap, this rating can be understood better; they do not feel there is a need to discuss matters, since the venture knows what it needs to do already. This might work on a strategic level, however; on a task level this can arguably be something bad for the venture.

What also strengthens the theory of a clear roadmap is that the Alpha 7 team members have dealt with entrepreneurial failures before; both of them have had several startups before. Due to their entrepreneurial experience they might have become more structured and see the venture development as many processes. Their entrepreneurial experience would also explain their efficient way of working by manually doing things that they can automate later; they have learned not to waste time. Furthermore, the very high role specific experience of the team, also argues for a clear roadmap. Since co-founders know exactly what needs to be done, they can hire the people with the exact, relevant skills. Since one of the co-founders already has proven performance with Epsilon X, the team members are not trying to “figure out” new insights; they are just trying to make the technology work in their setting.

“It’s not the exact same technology, but the idea is very similar. We instead target X [other market]. It was the other co-founder’s idea [note that this is the same co-founder as for Epsilon X]. [...] The other co-founder knows what is possible to do with the technology and so on. We will build our unique technology of course. But knowing the limitations with technology, or knowing what you can do with the technology, is super important. In other ventures I’ve had we haven’t known if things will take one week or five months. That gets

problematic. The nice thing here is that we know how the technology should be, what kind of language we can develop etc.” - Co-founder of Alpha 7

Alpha 27

The co-founder of Alpha 27 was one of the interviewees. The venture is newly-started (the idea was born just 7 months ago) with no customers yet.

In combination with the complexity of the venture's solution, and the team members' belief that the team members lack diverse backgrounds, it is assumed that the venture is operating in a market the team members do not have much experience or knowledge about. The team members would want more diversity and knowledge into the company as they believe it would help the venture, but are somehow hindered from recruiting it. A probable reason is that the venture is very young and lacks customers; it can be hard for the co-founders to recruit someone when there is yet no income. Furthermore, in the interview it is indicated that the venture “wants nice and skilled people”, and would not settle for less. The co-founder means that they have been very restrictive with taking in new people due to this. A possible reason could be that the startup faced internal problems when deciding to refocus from product development to customer development. This is further illustrated by the quote in the end of this subsection.

An interesting result is that the team members of Alpha 27 are not testing their risky business model assumptions first. This might be due lacking confidence in that they are doing the correct things, a hypothesis that can be backed with the venture being young and inexperienced. Another hypothesis can be that, since the venture idea was given to the co-founders by experts within the field, as illustrated by the quote further down, the co-founders believe the riskiest assumptions have been verified already, and that it is a matter of execution. A further rating indicating that the venture is not adhering to the *LSM (Lean Startup Methodology)* is that the venture is not splitting its metrics in cohorts. However, this rating has to be looked at in the light that the venture is new and has no customers yet; the team members simply do not have any data to look at yet. Furthermore, the venture being young can also explain the lack of scheduled meetings to do discuss changes to the business model; things are changing on a day-to-day basis so it would not make sense to schedule them, see quote below).

The team members of Alpha 27 are following the principles of the *LSM* regarding working efficiently. Rating the insights as productivity measure highly in both agreement and importance indicates that the team members of Alpha 27 actually aim on working on the right things. They avoid investing in things/features that might be useless by doing things manually in the beginning in order to automatize later on. However, a hypothesis can be that the team members do these things more out of necessity than because it is deemed as the best alternative. Seeing that the team members of Alpha 27 have rated low diversity and overall low expertise (though having a high complexity and role specific experience), they are still very few in the venture as of now. It can thus be that the team members of Alpha 27 do not have the competence or time to build the things they would want to build; they are simply too inexperienced and lack the time to build.

Another interesting takeaway from the interview is that the co-founders of Alpha 27 actually were given the advice by other entrepreneurs to stop working on product development and focus more on the business model instead. As they are young, lack confidence and experience, they actually listened (as proved by stopping the product development and letting go of the two team members working with this). However, this is conflicting with their response in the survey where “customer development” is rated low.

"The contract with the others that were in the team initially. They wanted to split equal with the ownership. When we then didn't want to split equal, they wanted to be reimbursed for the time they had spent on this, or take the idea further themselves. Nothing happened but things went up for discussions and it felt tough. We should've written a contract where it would've said that there was no money reimbursement and that no one could take the idea further. That we weren't more careful with the contract made us think that things would go really bad, we had a lot to think about that time." - the co-founder of Alpha 27 when asked what factors have been bad for the venture. Note that the two co-founders initially took in two developers. These are the ones mentioned in the quote.

"In our master's thesis we worked on this topic. We did many interviews with experts and it was basically them giving us the idea." - co-founder of Alpha 27 when asked how they got the business idea.

"Almost all the time. We are in such an early phase, and have extremely many meetings every week. There's a lot of new information. Almost everyday things take a new turn. We need to discuss everything that comes in"

Alpha 34

Based on the responses, it can be assumed that the team members of Alpha 34 would want to amore diverse set of team members, but are hindered to fulfill it. Having rather homogeneous networks can be a possible reason. This finding is however interesting since the importance of experience is rated rather low for all cases of experience; a possible reason for this could be that the team members have a clear roadmap of what is needed to do and hence hiring people to execute what they are told. This theory is further backed by that the team members' opinions are not equally listened to in discussions. The opinions not listened to might simply not be listed in the roadmap; it can thus be assumed that Alpha 34 is rather hierarchic or top-steered, with team members new ideas being shot down simply because they are not on the roadmap. This would also explain the lowly rated motivation and expectation knowledge for the team members; the team members might be perceived as less motivated, since they do not take much own initiatives, which in turn might be because they are not sure of what to do. This could in turn be derived from the team members not being listened to in the first place; there might be a resistance from e.g. the engineers to follow things in the roadmap, when they do not agree on that it is the right thing to do but not having their opinion listened to. This theory would furthermore explain the low common goals of the venture's future; the people are simply not agreeing on where to go and how to go there.

A hypothesis is that the team members in Alpha 34 blindly follow a business plan without realizing the business plan does not make sense. Ries (2011) means that this could lead to "scapegoating", where leaders blame the lack of success on that employees are not working hard enough. This hypothesis would be supported by the fact that the team members in Alpha 34 do not test their riskiest business model assumptions first, which means that there is a possibility the team members in Alpha 34 have been working on the wrong things all along - there might be no demand for the solution they are working on from the first place. This would explain why the venture's team members do not start by doing things manually and later automating them; having a clear business plan/roadmap that is trusted blindly, team members are told what to build and later on blamed for "not being motivated enough" when the results are not showing. Furthermore, it is evident that the team members of Alpha 34 do not actively work with business model visualizations. A possible reason is that they do not realize that it is their business plan that is wrong; they rather believe that the *execution* is not done well enough. This is further supported by not measuring productivity with insights; productivity is probably measured by seeing how much of the roadmap has been done.

A reason could be that the venture's team members, just like the team members of Alpha 7, are using another venture's technology (proven performance record). However, it might simply not be working in the context of Alpha 34. Rather than acknowledging that, the team members of Alpha 34 are trying to "muscle their way through". The team members clearly not following the lean startup principles.

Based on the written above, a hypothesis is that Alpha 34 is a venture in uproar; the team members have a clear roadmap of what to do, but it is not working. The team members are probably "scapegoating" each other (Ries, 2011); Ries (2011) means that this is common when a team follows a business plan that is doomed to fail since it is based on the wrong assumptions. The lack of success might be believed to be caused by a lack of motivation; if people worked harder, the thinking goes, the results will come. This would be in alignment with the rating of motivation (2,4). However, Ries (2011) means that as long as the underlying assumptions are wrong, results will never come.

Alpha 21

This startup is a spin-off from an entrepreneurial programme; the co-founders have master's degrees in entrepreneurship.

An interesting finding is that the team members do not know what is expected of them in their work; a possible reason could be that it is not clearly defined what the team actually is supposed to do. This seems like the most reasonable hypothesis since the Alpha 21 team members do not have common goals with the future of the venture. Something indicating this is that the team members develop their capabilities to a high extent, even though it is thought of as not important at all to do so. Two possible reasons for the large discrepancy could be that the "wrong" capabilities are developed, or, that capabilities are developed by measures that are unnecessary for the venture. Assuming either of these two possibilities is true, a hypothesis could be that the team members are not in the venture for the same reasons; some want to learn as much as possible and develop their in general low role specific skills, whereas others might want to earn money.

Assuming that the previous hypotheses about Alpha 21 are true, the hypotheses could to some degree explain the market adjustment discrepancy; it can be argued that developing skills and capabilities are hindering the team members of Alpha 21 from adjusting to the market by e.g. creating features that are not needed, but where the creator of the feature develops his/her technical skills.

Furthermore, it can be noted that the venture rated actionable metrics and cohorts as important. However, the venture has no opinion to what degree these statements are true today. This is also the case for the other two metrics statements. This was probably because the respondent felt that the questions were not relevant for the venture, something that is supported by the reply in the "Do you want to add something"-box.

"Some questions do not apply to a hardware company according to me." - respondent from Alpha 21

Alpha 28

The co-founder of Alpha 28 was one of the interviewees.

The venture's team members to a large degree gets information from their network. They do not believe this is important, but a hypothesis is that the venture's team members sanity-check with people that either are entrepreneurs or have knowledge in a field. The latter is further backed by the interview, see the quote below.

The team members do not test their risky business model assumptions first. It might be that the members are not clear on what their risky assumptions are, as it can be assumed they are working in a rather unstructured way (see bottom paragraph for Alpha 28). This is based on that one co-founder in the interview state that the venture does not use the business model canvas (in the survey one of the co-founders responds with a 0 in agreement for this statement and the other a 3 in agreement). A result of this can be that the team members rely on the wrong assumptions, which risks to shut down their venture. Furthermore, rating the *MVP mentality* of getting insights as fast or cheap as possible very low, indicates that the team members are rather inefficient in their insights search and that they are not building products according to the Build-Measure-Learn methodology proposed by the LSM ("everything you build shall have a reason for being built"). This might lead to the team members wasting resources on things that do not add value for the customers. This might happen since the team members do not have regular meetings regarding changes to their business model. In combination with the high drive of the team members (highly motivated and high team unity), the team members may work in the wrong direction for a very long time before realizing this.

The team members furthermore stick out by not aiming to measure things which they can take action on. A possible reason might be that the members in this stage are unsure of what to do, and therefore try to measure as much as possible since it can be handy later on. They might also believe that the more data the merrier, hence measuring everything they can get over.

Another hypothesis can be that the team members have communication issues. The co-founders are based in two different cities and can hence not meet that often. For instance, one of the co-founders only rates a 2 in agreement if the team members know what is expected from them, whereas the other co-founder rates a 4. This hypothesis would be further strengthened by that the two co-founders are not aligned in if they have their business model visible in their office (one of them rates a 0 in agreement and the other one a 3). They are also not aligned in if they test their riskiest assumptions about their business model as fast as possible (one of them rates a 0 in agreement and the other one a 2).

"We've changed a lot with time. Now we take in people from the outside, people that are good in that area. We take them in a couple of times so that they are with us when we brainstorm. We might have a session that goes on for a couple of days. And we get this foundation for a functionality, or whatever we're trying to create"- co-founder of Alpha 28 when asked about how they go about to develop something

Bravo startups

Some hypotheses have been made in order to make profiles for the Bravo startups that stuck out in the graphs.

Bravo 3

Bravo 3 is a medicine technical startup with a medication that is going through medical clinical trials for the solution. The solution allows people with a common injury treat themselves at home. The team members perceive the solution as quite complex. The team members were part of an entrepreneurship master's programme and were matched together based on their personalities.

The venture's team members are inexperienced in the medtech industry and entrepreneurial field, even though they are very experienced in their specific roles. However, the team members are passive on developing new capabilities. A hypothesis is that the "force-fitting" of the team members in combination with their lack of industrial and entrepreneurial experience causes their lack of direction; the team members do not at all have common goals and the atmosphere is not fail-friendly. This would further explain that the team members to a low degree know what is expected from them in their work and that they have a rather low feeling of team unity even though they would want a better one. The low degree of motivation could furthermore be explained by this. Due to their rather high power parity (everyone's opinion in discussions not valued equally much), a hypothesis can be that the venture has experienced conflicts regarding the future of the venture where some team members have lost; it can be further hypothesized that this also causes the lack of motivation and lack of expectations knowledge.

Overall, the team members rate low in the factors related to *LSM*. A probable reason is that they due to the nature of their solution and in combination with their clinical tests, feel that they can not practice these factors (they should be highly aware of the *LSM* through their education in entrepreneurship). For instance, there might be ethical issues developing using e.g. MVPs such as smoke tests. Legal charges would likely happen should the team members use the *LSM* testing. A hypothesis is that there is a clear demand for their solution as it is quite common that people have this type of injury at some point in their life, and there is no possibility to self-medicate as of now. The team members' struggle is thus to scientifically prove that the solution works and does not harm anyone. Furthermore, as the solution has not passed the clinical tests yet, it is not possible (to the same extent) to test real customer behavior and hence it can be assumed that the team members have not developed metrics yet, which would explain not using ratios or cohorts as metrics. This would further explain the low agreement to having regular meetings regarding changes to the business model (the cycle times of medicine testing are long).

However, a hypothesis can be that the startup actually could use real customer behavior and adjust to the market, by testing the assumptions that are not related to the actual product itself, e.g. key partnerships, revenue models, cost structures etc.

Bravo 6

Bravo 6 is an AI system provider, mainly for SMEs. The author has heard the co-founder speak about creating the venture, and key takeaway was that the team members aim to be efficient but do not do everything according to the book.

The solution can be considered complex enough to spur the creativity of the firm, and the team members see themselves as competent enough, even though the team members are inexperienced in this industry and the team members are not experienced in their roles. A

hypothesis is that the venture members are young and full of self-confidence. What further sticks out for the team members of Bravo 6 is the relatively low unity feeling in the team. To a little extent do the team members agree that they have a feeling of unity between each other, and they perceive it to a little extent important as well. A hypothesis can be that the team has grown quickly and the founders want to have a more “professional” setting. This is however in contrast to how startups usually are.

The key takeaway of being efficient from the guest lecture speech held by a co-founder of Bravo 6 is not supported by the survey. Even though the team members to a high degree aim to find insights as fast or cheap as possible, they are to no extent doing things manually and later on automating them. This is highly inefficient as they might waste resources on assumptions that are not true (especially since they are developing an AI system). This scenario can be considered probable since the venture’s team members do not have any regular meetings scheduled to discuss changes to the business model. A possible reason for this can be that they have a clear roadmap to reach to where they want to, hence not feeling the need to discuss any changes. Having a clear roadmap is further supported by that they do not measure their productivity in validated learnings. These factors in combination might cause the venture trouble in the future since they might have been working on the wrong assumptions all along.

Overall, the venture’s team members have some of the mentality from the *LSM* (hypothesis-driven, aiming to do things efficiently etc.), but do not do all the of the processes proposed by the *LSM*, such as using ratios as metrics or splitting customers into cohorts. This is further supported by the guest lecture speech held by the co-founder, who meant that they did what they believed was important and skipped the rest. This is in alignment with the findings and can be considered to be efficient in some way; the venture to a large extent appropriately serves most of the factors (low discrepancy).

Bravo 33

Bravo 33 offers a complex solution; however the experience of the team members is quite low and they to a little degree develop their individual capabilities. Nevertheless, the team believes its experience is sufficient. It can be assumed that the venture is confident that it has the ability to handle the commercialization of its solution. What might be an issue is that the venture’s team members to a low degree have common goals with the future of the venture (even though this is believed to be very important); this can, in combination with the rather low value for an allowing atmosphere to trying and failing, leading to that the team members settle with a business model that works alright but which is not the perfect product-market fit. This is something that is further supported by that the venture’s team members to a low degree adjust the value proposition to the market; a hypothesis can thus be that the venture’s team members are not interested in earning as much money as possible (assuming that the perfect fit to the market allows you to do so).

The venture’s team members have a rather hypothesis-driven approach to the development of their business model. However, the members are to a low degree efficient in their way of working, as they to a low degree aim to find insights regarding the business model as fast or cheap as possible and do not do things manually and later automize them. In combination with the low value of common goals and low allowing atmosphere, a hypothesis can be that the venture’s team members, should they work on the wrong assumptions, waste much resources in time and money, and also risk to damage the interpersonal relationships. It can also be assumed that the low aim of finding insights regarding the business model as fast or cheap as possible is due to the low level of allowing atmosphere. Furthermore, the venture’s team members not scheduling regular meetings to discuss changes to the business model can be the source of the low common goals (team members not formally aligning how they

view the future) and low allowing atmosphere (changes proposed can feel “sudden” and not “thought through” and hence be shot down).

An interesting finding is that the venture’s team members aim to measure actionable things but do not use either metrics nor cohorts. They are not measuring their productivity in insights of the customers, which further supports the theory of the venture’s team members not working efficiently.

Bravo 16

Bravo 16 is a venture with team members that have a high level of education. Almost all of them have a PhD and a couple of them are professors at one of the leading technical universities in Sweden.

The solution is very complex, and it can be assumed that the team members (due to their education level) are in the forefront of the core technology. However, the low diversity indicates that the competence in the team might be quite technical and “one-sided”. A hypothesis is that the team members have much competence in the technical parts but lack the business development side, which might lead to the team members feeling less confident with their solution. This theory is further supported by that the team members do not know what is expected from them in their work; being engineers/“techies” by heart, doing the “soft” factors might come with more challenges to them and they might need strict methods to use. Furthermore, a possible reason for the team members not developing their individual capabilities can be due to the already very high educational level in the team; it can be hard to improve in a field in which the person already is in the forefront. However, there are other fields where the team members could improve in.

One extremely interesting finding for Bravo 16 is that the venture’s members do not have an opinion how much team unity there is, even though it is ranked as of very high importance. A hypothesis can then be that the team members are rarely together, making it hard to evaluate. A probable reason for the team members not meeting that often can be that this is most likely something most of the team members do as a “side-activity” and hence are not too emotionally attached to neither the venture nor the team. This is supported by that many team members also work for the university. This would furthermore explain the large discrepancy of motivation; the venture’s team members believe it is important to be motivated but still do not agree at all that it is motivated.

The team members to a low degree having common goals might be an indication of that the team was not “organically” created but rather has been put together to commercialize the solution. A hypothesis can be that the venture is hierarchical, which might be indicated by the venture agrees to a low degree that everyone’s opinions is valued equally much. This is not unlikely as the academic world is very hierarchic; a hypothesis can be that the professors in the teams are listened to more than the others since they likely are more specialized.

As the overall atmosphere can be seen as quite bad for innovation (combination of atmosphere that does not allow team members to take risks, low motivation, low unity, low expectation knowledge and low common goals) and also not “friendly”, a hypothesis can be that the team members were force-fitted together because of their competence (high industrial experience). It can be further hypothesized that the reason they joined was due to the high level of competence in the group. However, the team members are not used to working in entrepreneurial teams and most likely not used to working in the roles they have today (coming from the academia, it can be assumed that they have not worked in a “role” previously), which might be reflecting in the low unity and expectations. Furthermore, seeing that this venture’s team members are older than most other startups and together with their

high level of education, they do not have a large network to ask for advice, which can explain the low degree of informal advice from people outside their team.

The team members of Bravo 16 are to a large extent hypothesis-driven, and they are also quite stringent with the *LSM* methods. A hypothesis can be that the team members' academic background makes the members trust the processes in the literature more "blindly" than other startups. This would further explain the fact that the venture's team members highest goal is adjusting the value proposition perfectly to the market and that they use real customers' behaviors when making decisions. The venture's team members are furthermore sticking out by using ratios as key metrics and breaking down the customers into cohorts, and using real customers behaviors as guide for decision making.

Not having an opinion regarding if there is a business model visible in the office further supports the theory that the venture's members do not meet that often. It can be assumed that they use their own offices from the university for meetings etc. Furthermore, the venture's team members are not always as efficient when actually doing things (even though it aims to be, by finding insights as soon as possible). They do not start things manually in order to later automatize them, nor measuring their productivity in validated learnings. This, in combination with not having an overall view of the business model, indicates that the venture's team members might miss important components of their assumptions to test.

Bravo 19

The co-founder of Bravo 19 was one of the interviewees in this study. The venture is in the medicine industry. The team members were participants of a programme and were put together based on their different competencies. The venture's team members are now raising capital for the second time.

The team members have a very complex solution with many different many fields of expertise. Despite this, the team members do not consider themselves to be diverse. It is however stated in the interview that the team members have different educations; the lack of diversity might be derived from the background or culture. Furthermore, the team members to a low degree had role specific experience before starting the venture; something which is mentioned in the interview, see quote below. What is characteristic for the venture is that team members have a close-knit team; the team members feel very united. The co-founder interviewed from Bravo 19 many times said that team spirit was probably the most important thing, and also explained how the venture had to let go of one of the co-founders since s/he lowered the team spirit. A hypothesis can be that due to the high team unity, the team members have had it easier to align their common goals.

As the co-founder from Bravo 19 states in the interview, the venture's team members were initially very hypothesis-driven and worked stringently with *LSM*, setting up different tests and making sure to prioritize the most important ones first. This is in alignment with how the venture's team members have rated the statement regarding testing the riskiest assumptions first. Furthermore, the business model canvas was good in order to condensate so everyone had the same picture and was initially used extremely much. Nowadays, the co-founder said, the team members do not use it as much since they have found a good business model, believe they have a relatively good product-market fit and changes are not occurring as frequent any longer. This is seen in the results, as the team members of Bravo 19 do not agree that they have a visible business model but believe it is of relatively high importance. Furthermore, a possible explanation for the low agreement on fast and cheap insights could be that the venture's team members already have tested most of their assumptions; the team members are now raising capital for the second time. The team members however rate the fast and cheap insights as very much important.

The venture's team members furthermore stick out as not using ratios as key metrics. A possible explanation for this is that the team members have to go through retailers (pharma companies) and do not sell directly to end-customers; since there is no day-to-day sales, like there would be by selling straight to end customers, it might simply be harder to break down the sales data used now into ratios. The co-founder from Bravo 19 says in the interview that it makes it hard to use metrics, when the user of the product is not the same as the one who pays for it.

An interesting aspect with Bravo 19 is that the team members initially tested what price end-customers would find reasonable to pay for the solution. However, the team members realized that in the Swedish healthcare market, people are not used to pay for their medicine. Hence, they had to pivot and change their revenue model to fit the Swedish market, targeting pharma companies. This is a sign of the team members adjusting their value proposition to the market.

"No, I wouldn't really say so.[...] There's a lot we had to learn the hard way" - the co-founder of Bravo 19 when asked if they had relevant knowledge prior to starting the venture.

Bravo 15

Bravo 15 is a financial application that helps private users get an overview of their finances. One of the co-founders has a master's degree in entrepreneurship.

Overall, the Bravo 15 team members were quite inexperienced regarding the industry and the roles they would have in this venture. However, they to a relatively high extent had dealt with entrepreneurial failures previously, which indicates that the team (or at least the founding team) are of entrepreneurial nature. The team members are furthermore highly motivated and are feeling unity between them.

What sticks out with Bravo 15 is that the team members to a very high extent follow the *LSM*, agreeing to almost all statements to a very high extent. The venture discusses changes to the business model in regular, scheduled meetings, uses ratios as key metrics, and aims to only measure things they can take action on. A possible reason for this could be the entrepreneurial nature of the team members.

Charlie startups

Some hypotheses have been made in order to make profiles for the Charlie startups that stuck out in the graphs.

Charlie 5

Charlie 5 is a clean technology/energy venture that solves an existing problem but where the solution takes less physical place for the customers, than do competing solutions. Since the solution is installed by the venture's team members at the customers' sites, a hypothesis can be that its solution is high value-low volume with relatively high fixed costs.

The team members of Charlie 5 have a fairly simple solution. A possible explanation could be that the team members to a very high degree are experienced (industrial and role specific). An interesting finding is that the team members are feeling quite united, even though they to a little extent have common goals with the future of the venture or have their opinions valued equally much. A hypothesis is thus that the venture is hierarchic, or at least that the team members have a hierarchic background.

Overall, the team members of Charlie 5 to a little extent follow the *LSM*, nor do they believe that the *LSM* is important. Almost all the hard factors are appropriately served. It can be discussed if the low rating on some factors is due to the nature of the solution; assuming that the solution is high value-low volume with high fixed costs, it can be hard to see clear cause-and-effects. This would for instance not allow for using real customers' behaviors as guidance for decision making. Not using real customer behavior can also be explained by technology push. Hypothesizing further on high value-low volume, this would explain why the venture to a low degree uses cohorts as well. Furthermore, an explanation for to the low degree of adjusting to the market might be that the underlying problem that is solved is both known and demanded; the venture's team members hence "only" need to make their solution work better than the competitors in order to reach success.

Furthermore, the venture's team members are to a low degree aiming to find insights fast/cheap, and to a low degree believe that this is important. This might indicate that the team members are confident in that they have found all the insights, or that the venture is a "side-quest" and hence not in a rush. Both these explanations would further explain the low degree of measuring productivity in insights.

Charlie 24

Charlie 24 is a retail startup (physical product) and one of its co-founders was also one of the interviewees for this study. The co-founders have experience in running a smaller retail business together but have to a low degree experienced entrepreneurial failure

The team members of Charlie 24 believe the product to be of medium complexity, and the co-founder says in the interview that the product is not hard to do. However, the team members still have a high diversity in the group, mainly due to growing much lately. This can be a possible explanation of why the team members are not aligned with what is expected of them in their work. It is especially hard for the co-founders since they are not used to having to back-check with the employees, see quote below.

The venture's team members ought to visualize their business model even more than they do now (to a medium degree), as the new team members could benefit from it by to a higher degree knowing what is expected from them. However, a possible explanation for not using a business model canvas as much as necessary might be that the venture's team members, to

a low degree, seem to be insights-driven. This is hypothesized since the venture's team members to a low degree aim to find cheap/fast insights. What further indicates that the team members are not insights-driven, is that the team members do not measure their productivity in terms of insights, even though they rate this of high importance. Based on these assumptions, a hypothesis can be that the venture's team members still have more important insights to find.

The venture's team members agree with the literature on what type of metrics to use, and as of now uses ratios as key metrics and split customers into cohorts. However, they could probably be more efficient in the measuring of sales data; to a medium degree they aim to only measure things that are actionable, which indicates that they might be measuring data that is non-relevant to them.

"And I mean you make mistakes all the time, for example excluding someone that works with e.g. marketing. You're used to taking decisions without briefing everyone else, you're used to doing things fast. And then you realize that you've hired someone who works with exact that thing, and that person might think that you have worked behind her/his back, or stepped on her/his toes" - co-founder of Charlie 24 when asked about the team

Charlie 22

The team members have a relatively complex solution, and are rather skilled in terms of role specific experience and previous entrepreneurial experience. The venture's team members however lack industrial experience and diversity; a hypothesis is that this can make the team members have a one-sided view of the underlying problem(s), taking into account the relatively complex solution. Further hypothesizing, the team members might be compensating for their rather one-sided view by getting informal advice by the people in their network. They might not understand the importance of this, as they rate the importance rather low. A hypothesis can be that the team members of Charlie 22 are "sanity-checking" with others.

An interesting finding is that the venture's team members seem to not be actively using a business model canvas of any sort, even though they are hypothesis-driven. A hypothesis is that the team members risk focusing on less important hypotheses by not being able to clearly see all of them. Furthermore, since the team members are not manually doing what they can automate later on, a further hypothesis is that the team members risk to waste time and resources developing features which are less crucial for their success. This hypothesis is further supported by the fact that the team members do not measure productivity in the insights ("solved hypotheses") they get; this might lead to the team members working even more on less important matters. Another sign of inefficiency is that the team members do not aim to measure only actionable metrics. In combination with the previous responses, a hypothesis is that the team members might be measuring everything in order to later on see what is important.

Charlie 8

The team members in Charlie 8 are not diverse, which risks to lead to a one-sided view of the challenges they face. The magnitude of this increases since their solution to a relatively high degree is complex. In combination with the low overall experience rate, and especially the lack of entrepreneurial failure, a hypothesis can be that the venture's team members

compensate for their “flaws” by to a very high degree being motivated and developing their individual capabilities, even though it might be within fields that are not important for their success. The hypothesis would be in alignment with the venture’s team members rating in the survey. Something that might be negative (or perceived as negative) for the team members is that they seem to lack a network to get advice from.

An interesting finding is that, even though the team members have a hypothesis/customer development approach, they believe it is of somewhat low importance to actually do so. This would explain why they to a low degree aim to adjust the value proposition to the market; a hypothesis is that the team members are confident that they have the right solution, hence pushing it out to the market. This hypothesis is further supported by the fact that the team members seem to have low entrepreneurial experience. Furthermore, the team members not testing their riskiest assumptions first might indicate that the team members have based much of their solution on the wrong assumptions. It shall furthermore be noted that the team members overall seem to use real customer behavior when making decisions; it can however be questioned if the customer behavior used is to test market pull or to work on optimization of the product.

Charlie 2

The co-founder of Charlie 2 was one of the interviewees for this study and has just raised capital for the second round; the venture’s team has the last nine months grown almost six-fold, with the headcount closing in on a hundred employees. The venture has also entered many foreign markets.

The team members in Charlie 2 to a little degree know what is expected from them, even though they believe it is very much important that they know this. A possible reason for this discrepancy can be that the number of team members has grown extremely much lately. Furthermore, the team members develop their individual capabilities to a little degree even though they believe it to be very much important for their future success. In combination with the very high motivation of the team members, a hypothesis can be that the new-hires are good at executing orders but are not aware of if they are supposed to find insights about the business model or not. Another hypothesis is that it might not be sure to the co-founding team either if the team members should find insights or just execute. Further on, the team members’ opinions are to a very high degree valued equally much, even though this is perceived as only somewhat important. This result could further explain the low degree of expectation; since all opinions are valued equally much, it might be hard for the new-hires to understand which opinions are the “valuable ones”. The low importance rating indicates that the team members believe the venture should be more hierarchic. Furthermore, it shall be noted that the co-founders actively try to avoid everything that is not value-adding to their core business; in the interview the co-founder states that it is a waste of time going to events and implies that it does not help their venture. This would explain why they also perceive getting informal advice as less important. Lastly, even though the team members do not agree on having experienced entrepreneurial failure, both the co-founders have been engaged in entrepreneurial endeavors before.

The co-founder states in the interview that and the venture take decisions on their gut feeling (see quote below) and it is in this light that these results should be interpreted. The team members do not agree on that their goal is to adjust their value proposition perfectly to the market; this can be a sign of that the team members have a clear roadmap of what is needed to be done, being sure that they are solving the underlying problem for the customers. Furthermore, the co-founder states in the interview that they do not use a business model (which is also the rating in the survey) and means that they have a “just try selling and see what sells”-approach. This might be negative for the venture in the future as the team

members might miss important assumptions about crucial business model components. This would further explain why the team members rate testing the riskiest assumptions first rather low; it might be that it is not clear to the team members which these are. However, the team members aim to work efficiently, which the co-founder indicates in the interview when saying :“everyone has been an intern first, doing things manually”. Further on, a hypothesis might be that the good initial market pull worked as a “proof of concept”, supplying the sufficient insights for the team members to continue. This would explain why the team members agrees to a little extent that it is aiming to find insights fast and/or cheap. However, it can be argued that the team members are working without a clear direction when they are building and then seeing what works; without regular meetings scheduled to discuss changes to the business model, it can be questioned if the team members will find as good product-market fit as they could have gotten with a more structured approach.

In the interview, the co-founder further states that the team members have not worked well with metrics and that they are looking into applying the right KPIs to the teams. This explains why the team members to a little extent agrees to using ratios as key metrics. An interesting finding regarding the metrics is that the result for only measuring actionable metrics contradicts the interview, in which the co-founder states that their metrics do not actually make them change. An unlikely explanation could be that the venture changed their way of working in the few weeks between the interview and the survey. Furthermore, that the team members are not using learnings as a measurement of productivity is aligned with that they might not be insights-driven, or that they are rather hierarchic; productivity might be measured by doing what the leaders say shall be done.

“Usually we make a decision without knowing and go for it. We have an intuition that has turned out to be quite accurate”- co-founder of Charlie 2

Charlie 11

Charlie 11 is an education startup and one of the co-founders was interviewed for this study.

The venture’s team members to a very high degree has the same background, both educational-wise but also culture-wise. A hypothesis is that the team members might not get a multi-sided point of view when discussing certain issues. The team members furthermore lacked expertise; which is illustrated by the quote below. They have however managed to compensate for this by having team members that have developed their own capabilities to a relatively high extent. When it comes to unity feeling, the team members rates themselves to medium agreement and believes it is of much importance; this can be explained by that the venture took in everyone who wanted to be part of the venture initially, as a co-founder from Charlie 11 states in the interview. The co-founder also says that s/he would not create a team like this again; much stress would have been avoided by looking at competence and loyalty.

Overall, the venture’s team members seem to follow the *LSM* quite well, being customer insights-driven and using the literature’s recommended metrics to a high degree. However, they stick out by not scheduling regular meetings to discuss changes to the business model, and also rate this of low importance. In the interview, the co-founder implies that they during a while had too many meetings, see quote below. A hypothesis is that the team members found it inefficient working this way, and have probably intentionally focused on not working this way any longer. It can be questioned however if the team members’ new approach is as efficient, and if they risk missing the forest for all the trees.

"This was a stupid constellation for a software startup. Being six people, and one learning how to code along the way, is not that optimal." - co-founder of Charlie 11 when asked if they had any knowledge before starting the startup.

"The key is, comparing to before, where we had more meetings and gatherings. [...] Maybe we thought too much of what direction we have right now, maybe you should not think on that too much,. Between the meetings you're supposed to actually get to the places you discuss on the meetings" - co-founder of Charlie 11 on how they approach problems

Nyckeln där är väl att om man jämför med tidigare, där det var mycket mer avstämningar och möten.

Charlie 31

Charlie 31 is an IT startup.

A hypothesis can be that the team members have a clear roadmap, as they to a very high extent know what is expected from them. This result is in contrast to the common goals of the team members; they to a little degree have the same goals with the venture's future. However, it can be hypothesized that the team members afford the discrepancy in common goals since they know what is expected from them. The clear expectations might further be explained by the low role specific experience and relatively high team unity; the team unity might be high because the low-skilled team members are happy that there are clear guidelines of what they need to do.

Overall the team members are highly hypothesis-driven and use real customer behavior when making decisions. They are furthermore working efficiently by measuring productivity as insights rather than other metrics, and also aim to make sure that they are working on the right things before optimizing them. However, they to a little extent visualize their business model, even though they believes this is relatively much important. A hypothesis can be that the team members would align themselves better with the common goals by using a business model actively. Furthermore, the team members are not using ratios as key metrics nor breaking down customers into cohorts, even though they believe both things are of relatively much importance. A hypothesis is that the team members can be even more efficient in their work by using these types of metrics, as this would allow them to see clear cause-and-effects.

Delta startups

Some hypotheses regarding the Delta startups, based on their responses.

Delta 10

The team members of Delta 10 are working with quite a complex solution, and are rather limited in their knowledge due to low industrial experience and quite low role specific experience. Due to their knowledge limitations (which continue since the team members to a low degree develop their capabilities), a hypothesis can be that there is a possibility that the team members targeting the wrong problem, or customer segments. Furthermore, the team members have experienced entrepreneurial failure before, which implies that they are of entrepreneurial nature. From this, it can be assumed that the team members ought to want to make sure they are addressing the right problem. However, they do not follow the lean startup methodology as thoroughly as can be expected for a startup in this position; neither do the members believe the principles to be important. This might mean that the team members build/have built a solution in order to see if it works, and have got some positive response from stakeholders and/or customers (seeing that the venture has not failed after more than five years). However, it can be argued that the performance could be improved should the team members make sure they are working on the right assumptions and solving the correct problems.

Delta 17

The Delta 17 team members were quite inexperienced before starting the venture; it can be assumed that they have had knowledge limitations due to this and the low diversity, and they would want to be more experienced. The team members have not developed their capabilities to the same extent that it was deemed important by them. However, the team members seem disciplined and structured (team members know very well what they are expected to do in their innovative work). What is furthermore interesting is that, even though, or maybe even *because of*, their lack of entrepreneurial experience (a hypothesis since they have not dealt with entrepreneurial failure before), the Delta 17 team members follow the lean startup methodology and its principles to a very high extent. A hypothesis can be that the team members can have been afraid of “not being entrepreneurs”, reading as much as possible about how to work like an entrepreneur. Furthermore, another hypothesis can be that Delta 17 team members probably are targeting both the right problem and the right customers, since they have worked rigorously with their business model. It can be assumed that the Delta 17 team members are closer to a perfect product-market fit than what the Delta 10 team members are.

Delta 30

Delta 30 sticks out in many graphs. The team members have a lot of expertise related to the actual solution, even though this is not believed to be that important. The low diversity agreement implies that the team members might be good in a limited area; the diversity importance implies that they are lacking knowledge in other important areas that are not related to the core technology. It can be assumed that, due to the age of the venture, less focus is on the technology and more on the surrounding areas; a hypothesis can be that since the team members are not skilled in the surrounding areas, they have quite divergent thoughts on how to run the venture from here. This could further explain why the team members to a low degree knows what is expected from them.

Overall, the team members seem to not follow the lean startup methodology even though some of the “lean mentality” is there. The team members seem to be quite stringent on doing the right things and being efficient. However, due to the low involvement of customer behaviors and the unstructured way of working, a hypothesis can be that the team members

are good at doing the right things *according to themselves*, and do not actually get any market “approval”, i.e. the team members are working very efficiently, but on the wrong things.

Delta 4

The team members of Delta 4 seem to be a group of individuals that are highly skilled; they are very diverse and have much expertise, having experienced entrepreneurial failure as well. This might explain why they are getting less informal advice than the other startups - there might not be any need for them. To a quite high extent the team members use the lean startup methodology and its principles, even though not following it all the way. It can be argued that the nature of their offering does not allow them to use all of the lean startup methodology.

Appendix C

6. Business model canvas

Below, the components of Osterwalder's (2005) business model canvas are described.

Building block	Explanation
Customer segments	An organization serves one or several Customer Segments.
Value proposition	An organization seeks to solve customer problems and satisfy customer needs with value propositions.
Channels	The organization's value propositions are delivered to customers through communication, distribution, and sales Channels.
Customer relationships	Customer relationships are established and maintained with each Customer Segment
Revenue streams	Revenue streams result from value propositions successfully offered to customers.
Key resources	Key resources are the assets required to offer and deliver the previously described elements
Key activities	by performing a number of Key Activities.
Key partnerships	Some activities are outsourced and some resources are acquired outside the enterprise.
Cost structure	The business model elements result in the cost structure

Table 19. Osterwalder's Business Model Canvas further described (Osterwalder, 2005).

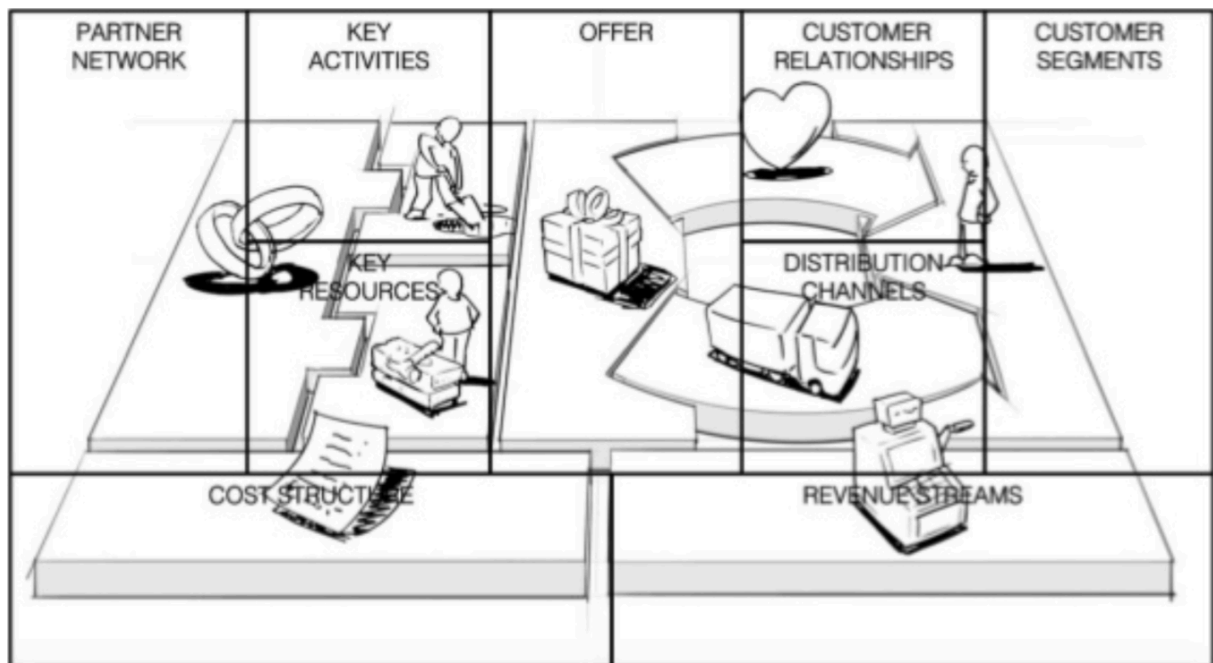


Illustration 1: The Business Model Canvas (Osterwalder, 2005) and how it captures the value of a venture.

7. Study done on large companies

Below the findings are presented from surveying large companies. Note however that there was another framework used for this purpose. This thesis is not comparing the factors per se; the aim is to illustrate that large companies have higher discrepancies.

7.1 Raw data from surveys

Note that the data in the table below is representing the average from every company. Multiple surveys have hence been conducted by every company.

COMPANY	Sierra 1		Sierra 2		Sierra 3		Sierra 4		Sierra 5		Sierra 6		Sierra 7		Sierra 8		Sierra 9	
QUESTION	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP
1. The vision	1,00	4,00	2,00	3,00	4,00	4,00	3,10	4,00	3,00	4,00	3,00	3,00	3,00	3,00	3,00	3,00	1,00	3,00
2. Internal factors	1,10	4,00	1,00	3,00	3,00	4,00	3,00	4,00	2,00	3,00	1,00	4,00	2,00	4,00	2,00	4,00	3,00	4,00
3. External factors	4,00	4,00	3,10	3,00	3,90	4,00	2,00	4,00	4,00	4,00	2,00	4,00	4,00	3,00	3,50	4,00	3,00	3,00
4. Innovation strategy	0,90	2,00	1,00	3,00	3,10	4,00	2,00	3,00	1,50	4,00	1,00	3,50	4,00	4,00	1,00	4,00	1,00	4,00
5. Organisation	2,00	3,00	3,00	2,00	3,00	3,00	3,10	3,00	2,10	3,10	2,00	4,00	2,00	4,00	2,00	3,00	2,00	4,00
6. Resources	1,00	4,00	3,00	3,00	3,00	4,00	3,00	3,00	2,50	4,00	1,00	4,00	3,10	4,00	2,00	4,00	4,00	4,00
7. Governance	3,00	3,00	3,10	4,00	3,10	3,00	2,00	4,00	3,00	4,00	2,10	4,00	3,00	4,00	1,00	2,50	3,00	3,00
8. Complexity	2,10	3,00	4,00	4,00	2,00	3,00	3,90	3,00	2,00	3,00	4,00	4,00	2,50	4,00	1,50	4,00	2,00	3,00
9. Talent	3,00	4,00	2,00	3,00	3,00	4,00	3,50	4,00	2,30	3,70	2,00	4,00	3,00	4,00	2,00	4,00	2,00	4,00
10. Motivation	2,00	4,00	2,00	4,00	3,00	3,00	3,00	4,00	3,00	4,00	2,10	4,00	2,00	4,00	3,00	4,00	2,10	4,00
11. Culture & climate	1,00	4,00	1,50	3,00	3,10	4,00	2,50	4,00	2,90	3,90	1,90	4,00	2,50	4,00	2,10	4,00	1,90	4,00
12. Hot spots	2,00	3,00	4,00	4,00	3,10	3,00	3,50	3,50	4,00	3,00	1,50	4,00	4,00	4,00	3,00	2,00	1,00	1,00
13. Metrics	1,00	3,00	1,00	3,00	2,00	4,00	1,50	3,00	1,00	3,50	1,00	3,00	1,00	4,00	1,00	2,50	1,00	3,00
14. Processes	1,00	4,00	1,10	3,00	3,00	4,00	2,00	2,50	4,00	4,00	2,00	4,00	3,00	4,00	1,00	2,00	1,00	4,00
15. Idea Management	1,10	3,00	0,90	3,00	2,00	2,00	2,00	2,00	1,00	2,50	1,10	3,00	1,00	3,00	2,00	3,00	1,00	2,00
16. Intellectual property	2,00	3,00	3,00	4,00	2,00	3,00	3,00	2,00	4,00	3,00	1,00	2,00	1,00	1,00	1,00	3,00	1,00	1,00
17. Customer insights	3,00	4,00	3,00	4,00	3,00	4,00	3,00	4,00	4,00	4,00	2,00	4,00	2,00	4,00	3,00	4,00	3,00	4,00
18. Network & Partners	3,00	3,00	2,00	3,00	2,00	4,00	2,70	3,00	2,50	4,00	1,50	4,00	3,00	4,00	2,00	3,00	2,00	4,00
19. Brand	2,00	3,00	2,50	3,00	2,00	3,00	2,00	3,00	3,50	4,00	4,00	4,00	3,00	4,00	3,00	4,00	3,00	3,00
20. Internal communication	1,00	3,00	1,00	3,00	4,00	4,00	3,00	2,80	1,00	3,40	2,00	3,50	2,00	3,00	1,00	3,00	1,00	4,00
21. External communication	3,00	3,00	1,10	3,00	3,00	3,00	3,00	3,50	2,50	4,00	3,90	4,00	4,00	4,00	3,10	4,00	2,00	2,00
22. Business Intelligence	3,10	3,00	3,00	4,00	1,00	4,00	2,00	3,00	3,00	4,00	2,00	4,00	2,10	3,00	1,00	4,00	2,50	4,00
23. Portfolio mgmt	1,00	4,00	2,00	4,00	2,00	3,00	2,00	3,00	1,00	2,50	1,00	3,00	1,00	3,00	2,00	4,00	2,00	3,00
24. Business Modeling	1,10	4,00	1,00	2,00	2,00	3,50	1,00	3,00	3,00	3,00	1,00	2,50	1,10	3,00	1,00	4,00	1,00	4,00
25. Types & Areas	1,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	2,90	2,90	1,00	4,00	2,00	3,00	1,00	3,00	3,00	4,00

COMPANY	Sierra 10		Sierra 11		Sierra 12		Sierra 13		Sierra 14		Sierra 15		Sierra 16		Sierra 17		Sierra 18	
QUESTION	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP	AGR	IMP
1. The vision	3,00	4,00	2,70	3,67	3,00	4,00	1,00	3,00	2,80	3,40	2,00	4,00	1,00	4,00	4,00	4,00	2,00	4,00
2. Internal factors	4,00	4,00	2,03	3,33	2,00	4,00	3,00	3,00	2,20	3,80	2,10	4,00	2,00	4,00	2,50	4,00	3,00	4,00
3. External factors	2,00	3,00	2,63	3,00	2,00	3,00	2,00	4,00	2,90	3,40	2,00	3,00	4,00	4,00	3,00	3,00	3,00	2,00
4. Innovation strategy	1,00	3,00	1,33	3,67	2,10	1,00	4,00	4,00	1,10	3,20	1,00	3,00	1,00	3,00	2,00	2,00	1,00	3,00
5. Organisation	2,10	3,00	2,00	3,33	3,00	4,00	1,10	4,00	1,60	3,50	2,00	3,00	1,00	4,00	3,00	4,00	3,00	3,00
6. Resources	2,00	3,00	2,75	3,33	2,00	4,00	1,00	4,00	2,00	3,60	2,90	3,00	2,00	4,00	2,10	4,00	2,00	3,00
7. Governance	2,00	2,00	2,65	3,33	3,10	4,00	2,10	4,00	1,70	3,60	3,00	3,00	1,10	4,00	4,00	4,00	3,10	3,00
8. Complexity	3,00	3,00	1,90	3,00	1,00	3,00	2,00	4,00	1,80	2,50	2,10	3,00	3,00	3,00	2,00	4,00	1,90	3,00
9. Talent	3,00	3,00	2,03	3,67	2,00	4,00	3,00	4,00	1,80	3,50	3,00	3,00	2,00	3,00	2,00	4,00	2,00	3,00
10. Motivation	2,10	4,00	2,67	4,00	2,10	4,00	2,00	4,00	2,10	3,90	3,00	4,00	2,00	4,00	3,20	3,00	3,00	3,00
11. Culture & climate	2,00	4,00	2,00	3,67	1,00	4,00	3,10	4,00	1,90	3,80	2,00	4,00	2,10	3,00	3,00	4,00	3,00	4,00
12. Hot spots	2,00	2,00	3,00	3,00	1,10	3,00	1,00	1,00	1,70	3,10	1,00	2,00	2,10	4,00	3,00	3,00	4,00	3,00
13. Metrics	1,00	3,00	1,97	3,00	2,00	3,00	3,00	3,00	1,55	3,30	2,00	3,00	1,00	3,00	3,20	4,00	1,00	2,00
14. Processes	2,00	2,00	2,03	3,33	3,00	3,00	2,00	4,00	1,60	3,60	3,00	4,00	1,10	3,00	3,00	4,00	3,00	3,00
15. Idea Management	1,00	2,00	2,70	2,67	2,10	3,00	4,00	4,00	1,45	3,10	1,90	3,00	0,90	3,00	2,00	3,00	2,90	3,00
16. Intellectual property	2,00	3,00	1,67	2,33	3,10	3,00	1,00	2,00	1,10	2,10	2,00	4,00	1,20	3,00	4,00	4,00	3,10	3,00
17. Customer insights	2,00	4,00	2,00	3,67	3,00	4,00	2,00	4,00	2,70	3,90	2,90	4,00	2,00	4,00	2,50	4,00	2,00	4,00
18. Network & Partners	1,00	4,00	2,00	3,00	2,00	4,00	2,10	4,00	2,10	3,50	3,00	4,00	2,10	4,00	2,00	4,00	1,90	4,00
19. Brand	3,00	4,00	3,00	3,33	3,00	3,00	3,00	3,00	1,60	2,80	2,00	3,00	1,00	2,00	3,00	3,00	3,00	3,00
20. Internal communication	1,00	2,00	1,33	3,33	4,00	4,00	1,00	3,50	1,45	3,20	1,00	4,00	2,00	2,00	3,00	4,00	2,10	3,00
21. External communication	3,00	2,00	3,00	3,00	3,10	3,00	4,00	3,00	1,35	3,10	2,10	3,00	2,00	3,00	3,00	3,00	2,00	3,00
22. Business Intelligence	2,00	3,00	2,37	3,00	4,00	3,00	2,00	3,00	2,40	3,30	3,00	2,00	2,10	3,00	2,50	3,00	3,00	2,00
23. Portfolio mgmt	2,10	4,00	1,37	3,67	1,00	4,00	1,00	4,00	1,40	3,00	3,00	4,00	1,00	3,00	3,20	4,00	1,90	3,00
24. Business Modeling	2,00	4,00	1,00	3,33	2,00	4,00	3,00	3,00	1,60	3,10	3,10	4,00	3,00	4,00	3,00	4,00	2,00	4,00
25. Types & Areas	1,90	4,00	1,07	3,67	4,00	3,00	3,10	3,00	1,50	2,40	1,00	2,00	2,00	3,00	3,00	3,00	3,00	3,00

Table 15. Raw data from survey with large firms.

7.2 Analysis of the survey data

FACTORS	AGREEMENT		IMPORTANCE		DISCREPANCY
	MEAN	STD	MEAN	STD	
1. The vision	2,48	0,98	3,61	0,47	-45,89%
2. Internal factors	2,27	0,80	3,79	0,40	-66,45%
3. External factors	2,95	0,81	3,41	0,60	-15,78%
4. Innovation strategy	1,67	1,03	3,19	0,84	-91,01%
5. Organization	2,22	0,66	3,39	0,58	-52,33%
6. Resources	2,30	0,81	3,66	0,46	-59,45%
7. Governance	2,56	0,79	3,47	0,63	-35,58%
8. Complexity	2,37	0,86	3,31	0,52	-39,34%
9. Talent	2,42	0,55	3,66	0,44	-50,95%
10. Motivation	2,46	0,49	3,83	0,38	-55,30%
11. Culture & climate	2,19	0,66	3,85	0,32	-75,61%
12. Hot spots	2,50	1,14	2,87	0,94	-14,67%
13. Metrics	1,51	0,71	3,13	0,50	-106,86%
14. Processes	2,16	0,92	3,41	0,71	-58,20%
15. Idea Management	1,73	0,85	2,79	0,52	-61,89%
16. Intellectual property	2,06	1,05	2,69	0,89	-30,31%
17. Customer insights	2,62	0,58	3,98	0,08	-51,95%
18. Network & Partners	2,16	0,52	3,69	0,46	-70,95%
19. Brand	2,62	0,71	3,20	0,52	-22,36%
20. Internal communication	1,83	1,04	3,26	0,62	-78,61%
21. External communication	2,73	0,84	3,14	0,59	-15,16%
22. Business Intelligence	2,39	0,74	3,24	0,64	-35,37%
23. Portfolio mgmt	1,66	0,69	3,45	0,54	-107,45%
24. Business Modeling	1,83	0,86	3,47	0,63	-89,77%
25. Types & Areas	2,25	0,97	3,11	0,52	-38,30%

Table 16. Statistical analysis of the data from surveying the large companies.