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The (re)evolution of the lean startup methodology

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Abstract

This paper examines the validity and application of ‘lean startup’, a methodology developed by Eric Ries, which is now considered in the startup community as a modern approach to product development for startup companies. In comparison to other lean theories, the successful application of the lean startup methodology is brought into question, highlighting areas of the model that may need further development. Comparing lean theories to strategic management theory and the external market environment, the lack of a competition orientation is highlighted as an area in need of investigation. The findings confirm the identified gap in the literature and validate competition analysis as a recommended component of an updated lean startup methodology.

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1. Introduction

1.1. Background

A great deal of attention has been drawn to a new product development model from Eric Ries' book, "The Lean Startup" (Ries, 2011). Ries describes a new ideology for product development that utilises the speed of modern technologies and focuses on the iterative process of product development to build a solution that closely matches the needs of consumers (Blank, 2013). Through focusing on the process by which firms develop and continue to develop their products, Ries (2011) argues that companies who follow the lean startup steps in the new venture growth process have a higher chance of success, due to a strong product offering designed in the early stages of the life of the startup (Bosch et al, 2013). In contrast, Patz (2013) argues that since the publication of the book, and six years on from its origins surfaced in the startup world, there has been little empirical proof that the methodology is beneficial to startups. From its inception in 2011, the lean startup methodology has been applied practically in a variety of business types, especially in service startups (Blank, 2013). However, Heitmann (2014) argues that from a theoretical perspective the lean startup has not been thoroughly investigated. The literature, therefore, is not in agreement about the utility of the lean startup methodology, indicating that there is still more areas to be investigated and components to be clarified. Blank (2013) acknowledges previous research that surrounds the lean startup has strong theoretical attention; lean thinking, lean production/ manufacturing, lean management and lean software development. By understanding and analysing the said theories a discussion can be formed around the lean startup, identifying potential methodological gaps using a research based approach.

Inherent to every new model there are areas for improvement that should be identified and explored. Therefore, this paper will investigate the theoretical perspective of lean that is directed to understanding the lean startup, drawing attention to any gaps in the model and making empirical suggestions for further research. Currently the model is used by a variety of different startups, in different contexts, developing very different product offerings. Even though the lean startup methodology has been noted for having practical success, there are still many entrepreneurs and businesses that would benefit if a theoretical approach was taken to understand the flaws of Ries's

method. As such, an investigation into the lean startup methodology, and its potential flaws, could provide insight into how startups could improve their chances of survival and success.

1.2. Aims and Objectives

The aim of this paper is to investigate the lean startup methodology and surrounding theories, searching for theoretical gaps in the literature and highlighting areas of the model that could be improved or challenged based upon empirical data. Furthermore this paper aims to assess how closely the lean startup methodology and the surrounding theories are used in practice; identifying areas for further research and development in the methodology. Differences between the theory and the reality of the model's application could yield interesting conclusions about the validity of the model and indicate areas for improvement. To achieve this goal, the following objectives have been developed:

- To conduct a literature review to identify the theoretical underpinnings of the lean startup methodology.
- To compare lean theories and strategic management theory in order to identify potential drawbacks of the lean startup methodology.
- To investigate the similarities and differences between the theoretical principles of the lean startup methodology, strategic management theory and the practical application of the lean startup methodology, identifying potential gaps in the lean startup methodology.

1.3. Research Purpose

The purpose of this paper is to find theoretical gaps in the lean startup methodology and highlight areas that should be challenged or addressed for improvement, based upon the empirical findings. Using a relevant case study that has applied the principles from the lean startup methodology, this paper will explore the practical application of lean principles in comparison to the theoretical recommendations. By comparing theory to practice, further research could be undertaken to alter and improve upon the lean startup methodology, potentially forming an adapted model that more closely fits a practical application. The use of such an improved model could enhance the probability of firm success. For this paper, however, the research will seek to identify a case study example where a combination of recommended theories and the lean startup have been combined to

successfully build a product, highlighting gaps in the lean startup methodology and therefore indicating the need for further research for a more comprehensive model.

1.4. Thesis Outline

The remainder of this paper is broken into five sections. Firstly, a literature review of the extant literature on the lean startup and the surrounding theories, drawing on the literature and the conceptual framework to identify possible gaps in the lean startup methodology. The second section of this paper is an analysis of the methodology for qualitative research for this paper. Thirdly, the empirical research data collected from the interview process. Fourthly, the analysis and discussion of the findings from the empirical research is conducted. Finally, a section to conclude the findings of the paper, drawing upon extant literature and the empirical research of this paper to review the reliability of the lean startup methodology and, as indicated by the results of the empirical research, offer recommendations for future research.

2. Literature Review

2.1. An Overview Of Lean

Over many centuries lean principles have been applied in product development and business, however, the term was only coined as lean from the philosophy of lean manufacturing (Blank, 2013) in the book “The Machine That Changed The World” written by Taiicha Ohno (Womack, Jones and Roos, 2008; Ries, 2011). Stemming from the philosophies in lean manufacturing, the principles were implemented by Henry Ford, the automobile manufacturer (Shingo, 1981, 1988; Monden, 1983; Ohno, 1988). Womack, Jones and Roos (2008) argue that expending resources for any other purpose than value to the end consumer is considered waste in the manufacturing system. Furthermore, Womack, Jones and Roos (2008) believe that the innovations from Ford and Toyota Motor Corporation evolved from a lack of resources and an intense domestic competition. Drawn from this concept are the rudiments; just-in-time (JIT) manufacturing system, respect for employees throughout with education in decision making and efficient error proofing systems (Shingo, 1981, 1988; Monden, 1983; Ohno, 1988). Hence, the lean principles now are current through the entire production development line, instead of a capital-strong mass-production tactic (Womack, Jones and Roos, 2008).

The lean terms have grown in theory and concept, with principles of waste minimisation, production optimisation and the creation of a market viable product (Blank, 2013). Despite the immense popularity lean developments and principles have had with practitioners, the research on the lean methodologies is meagre within relevant literature. The extant literature on lean theories is detailed below, namely Lean Thinking, Lean Manufacturing, Lean Management and Lean Software Engineering. The Lean Startup Methodology, which is a practitioner’s tool that has been developed from the aforementioned lean theories, is subsequently described.

For a comparison of lean principles with traditional principles, see Appendix 1.

2.2. Lean Thinking

Lean thinking has created an impact on both the industrial and academic areas since its inception a few decades ago (Womack and Jones, 2010). This was nurtured by an intense use in a variety of industry sectors outside the automotive industry (Patz, 2013). Lean concepts have transferred from localised development to a more theoretical perspective (Aziz, 2012). Hines, Holweg and Rich (2004) believe its faults are the lack of human integration and its application beyond mass production, repetitive manufacturing situations (Hines, 2004). Lean's lack of a clearly defined term has presented confusion and uncertain boundaries with further management models (Hines, Holweg & Rich 2004).

To quote Womack and Jones (2003, p.15), lean thinking is to "provide a way to do more and more with less and less—less human effort, less equipment, less time, and less space while coming closer and closer to providing customers with exactly what they want". From another perspective, lean thinking is a wide-ranging bundle that comprises decreasing inventory, regulating work procedures, refining methods and educating employees to make choices about value (Smith and Hawkins, 2004). Research from Aziz (2012) points to the lean theory as a method that evolves around the concept of less – less in resource consumption and asset capital in the combination with creating a desirable product for the customer. Pettersen (2009) argues the adaptation of lean principles should take into consideration the context for which the product is iterated to enhance the product outcome within the lean startup.

Womack and Jones (2010) provide the widest understanding of lean application with an in-depth study on the subject, the principles noted are; customer value acknowledgement, value stream organisation, the smooth course of production, "pull" mechanisms to sustain resource flow within restricted operations and finally the aim of minimising waste to nothing in the production process. Melton (2004) identifies the two common drawbacks of lean thinking as an unnoticeable palpable reward and the utilisation of sufficient business methods. Womack and Jones (2010) argue that lean processes are swifter and bring a more efficient process to the customer response and product development, whilst consistently reviewing the entire supply chain to create an efficient resource management process, as bottlenecks and areas of waste are identified constantly.

Lean theories are discussed universally throughout the use of lean thinking philosophy. To execute lean theories managers will use the mind-set created by lean thinking, literature suggests that lean thinking is an umbrella term for lean theory application.

2.3. Lean Production/Manufacturing

It is crucial for companies, more importantly managers, to understand lean as a whole to apply the correct tactics to deliver customer value (Anvari & Roholah Moghimi, 2013). Moreover, this is important as the distinction and application of lean thinking at a strategic level and lean production as an operational perspective differ (Anvari & Roholah Moghimi, 2013). With an aim of delivering a consistent value proposition to the final consumer, the lean value system is a result of this as it incorporates a value-adding framework of processes across businesses and resources (Shah and Ward, 2003). Shah and Ward (2007) continue, the lean principles are suitable for manufacturing and sharing circumstances as they are customer value driven. The lean production practices considers the waste of capital and resources, by a means that any goal that doesn't add value for the end customer is deemed as wasteful, henceforth more value with less work is created (Ohno, 1988). The five commonly identifiable principles of lean production are listed as (McCurry and McIvor, 2001; Wanga and Chenb, 2011):

- Customer value - customer's state as value is significant
- Value stream analysis – understanding customer values
- Flow – production process flow throughout
- Pull - commodities to stock production is prevented
- Perfection - non-value-added elements are removed through iteration improvements

Shah and Wards (2007) state that lean production's main mission is to eradicate waste by coincidentally diminishing the supplier, customer or inner inconsistency. Moreover, the production strategy that is lean has convinced many industries of its worthwhile use by succeeding in delivering greater levels of production proficiency at an operational and strategic level (Moreira, et al., 2010).

The supply chain viewpoint is stressed in lean, from the suppliers to the end customers the internal production systems are one with the value stream (Rother and Shook, 1998; Womack and Jones, 2010; Talib, et al., 2011). Efficiency in manufacturing operations and the delivery of quality products dictates the success of in the short, medium and long term of the business (Talib, et al., 2011). Moreover, Mejabi (2003) argues that to attain a stable path towards business superiority businesses need to apply lean production strategies, with a focus on waste reduction and production rationalisation.

Kovacheva (2010) argues that if the lean production strategies are used without a conceptual grasp, cultural and structural preconditions can have negative implications for any business. Another criticism by Anvari and Moghimi (2013) is that the tools of lean production should be used by trained professionals that can grasp the theoretical and practical perspectives and uses of lean production. Schonberger (1982) poses a critical viewpoint that the key aspect of the lean approach in lean production is to have the competence to be able to adapt to variability in the supply chain.

2.4. Lean Management

The lean management system supports the lean production system, blending conceptual and practical tools (Gabriel, 1997). Warnecke and Hüser (1995) define lean management as an intelligent method containing an organisation of actions, when they are applied in their entirety there is an opportunity to become lean and create an efficient and competitive state in a company. Jackson's (1996) view of the lean management system is as a complete programme that focuses on long term tactical enhancement and day to day objectives to create a business that is customer oriented, agile, and prepared for the tasks in the future.

Within lean management it is advised to acknowledge lean project management, a broad edition of the lean concepts; lean thinking, lean manufacturing and lean production taken into a project management context (Warnecke and Hüser, 1995). The lean management system successfully uses specific model documents that provide guidelines to stay on path as the business consistently develops and changes directions and goals (Jackson, 1996). Lean Project Management consists of many methods that are used in business development, one of the prime methods is standardisation; the process of creating and applying technical benchmarks (Warnecke and Hüser, 1995).

Organisations employ lean management by having a particular outline regarding the development and preparation of management protocols. The features apparent in lean management organisations are listed by Jackson (1996) below:

- Entire employee training with developmental programmes
- Groups focused on quality and task flexibility
- Attribution to customer placement and organisation
- Line management accountability
- Use of team conferences and value circles

The relationship between lean management and training and development is apparent (Gabriel, 1997). What is also apparent through research is the contextual, company and cultural variables that can have impacts on the use of lean management systems (Warnecke and Hüser, 1995). Gabriel (1997) recommends the business must be competent for it to be lean; therefore, the management must acknowledge the level of the business capabilities and the employee's aptitude to ensure that lean methods are applied via lean management.

2.5. Lean Software Development

The main bulk of literature on lean software has been conducted by Poppendieck (2011), this research declares that when lean thinking is suitably used and comprehended, then the thoroughly tested solution that lean software development practices can be built. The method of lean software is valued by Ries (2011), who credits this process to assess the market for a feasible product. Bosch, et al. (2013) believe that to find solutions to give the customers value with a minimisation of resources that is less than the competitors, the entrepreneur needs to review the value chain to produce an irrefutable competitive advantage. Fagan’s (1976) design and inspections to reduce faults in program development paper inspired the lean software development framework, and is deemed as a refinement. Fagan’s (1976) solution revealed how to relate technical quality and progressively regulate methods to feasible solutions on paper. Münch, et al. (2013) argue that it is vital that companies make premature valuations of customer value for software companies, startup spin-offs, and novel product development in present businesses. Björk (2013) goes further to

discuss that software technology frequently outlines the unique selling point in entrepreneurial environments that influence customer worth.

Poppendieck (2003, 2011) raises the issue of slow software development, to continue on this point, suggesting that rapid development solutions should be deliberated before it is perceptible. A paradigm shift is initiation once agility is created, as altering from a mass production system to a lean software development frame of mind (Poppendieck, 2011). Therefore it is recommended that the lean software development principle should be applied to Evade mass production paradigms:

- Add nothing but value
- Centre on the people that add the value
- Flow value from demand
- Optimize across organisations

Fundamental to lean thinkings role in software development and within the lean startup are the principles; removing waste, authorising front line employees, immediate customer response to requirements, and enhancement through the value chain (Melton, 2004). Poppendieck (2011) translated the seven types of production waste that Taiichi Ohno (2008) listed to suit lean software development create a deep framework for enhancing software development. The Seven Wastes of Software Development (Software in **bold**) are:

Overproduction = **Extra Features**

Inventory = **Requirements**

Extra Processing Steps = **Extra Steps**

Motion = **Finding Information**

Defects = **Defects Not Caught by Tests**

Waiting = **Waiting, Including Customers**

Transportation = **Handoffs**

Lean thinking has been rapidly applied to many situations, and this the creation and development of lean software development was the swift answer to a recognised need to reduce the time to create a software solution to a problem lean instruments have been created. Poppendieck (2011) certifies that lean software development is enhanced when the value adding developers upgrade their

competences relevantly and frequently via training – creating teams and approaches that solve problems with swift solutions.

2.6. The Lean Startup Methodology

The lean startup methodology is a new concept that was created for specialists with a rational approach directed towards the startup area focusing on product development, with an amalgamation of the above lean theories. A popular definition of a startup, by Eric Ries (2010), states that "a startup is a human institution designed to deliver a new product or service under conditions of extreme uncertainty." Ries can be credited with coining the term Lean Startup. Reis's work is heavily influenced, in particular, by the work of Steve Blank, who outlined the Customer Development Model in 2005 (Blank, 2013).

An observation by Björk et al. (2013) states that Ries uses Steve Blank's Customer Development model as part of the lean startup as the present agile methodologies do not equate to meet the desires of the customer. In Ries book he states that entrepreneurship is a type of management (Heitmann, 2014). Heitmann (2014), continues to discuss the Lean Startup, declaring that agile and iterative principles should be used throughout product development in the lean startup. Therefore, the attention of the business should be on a practical learning-by-doing approach, rather than the traditional method that is dictated by a general predicting business model. The use of goal focused tests will certify the business model hypothesis, deeming it viable or not (Blank, 2006; Blank & Dorf, 2012). The lean startup draws upon concepts from the aforementioned lean theories to push the product to the market as soon as possible and then make adjustments iteratively, based on customer feedback (Ries, 2011). For the key components of the Lean Startup Methodology, see Appendix 2.

The aforementioned components of the lean startup methodology can be compared to the lean manufacturing principles, as Ries has listed these features more suited to the twenty first century needs of the startup environment to which the process is deemed to be valuable. The typical business plan strategy is to predict the strategies and activities that should be taken over the next few years and be listed in a text heavy document, which is contrasted by the lean startup methodology business model canvas which can consist of only one page. By using lean thinking

principles this paves the way for lean startup principles, being that applying the lean thinking processes will create a swift and efficient approach to creating a valuable solution to a problem (Patz, 2013). Alexander Osterwalder's Business Model Canvas is edited to provide an outline for the lean startup business model (Clark, 2012; Osterwalder & Pigneur, 2010).

Problem solution and product market fit need to be met in order to validate the expectations that the business model canvas generates from all the specific information about the customer and the product, that are bonded through the value proposition (Maurya, 2012; Ries, 2011., Osterwalder & Pigneur, 2010). Lean management theory adds a value perspective to the lean startup, where using smart systems and approaches to create a smooth process throughout the company, from the top down, with a variety of goals that will create the most valuable product with the least amount of wasted resources (Gabriel, 1997). Blank (2013) commended the Lean Startup as a revolutionary idea that would "change everything". Patz (2013) argues that there is still no empirical findings that can validate the use of the lean startup will be beneficial to creating a business or developing a product. This raises cynicism that this widely applied phenomenon of the lean startup is as groundbreaking as suggested. The lean startup has scarce evidence of the practical success, just statements, and there are fewer statistics to reveal the faults in the 'epic' methodology, thus leading to a much needed investigation in its potential empirical flaws and benefits to address the scepticism.

Through an in-depth overview of the lean startup, it becomes apparent how the aforementioned theories have shaped the lean startup methodology. Lean thinking provides a philosophical framework to approach the situations, whilst lean manufacturing gives the more practical solutions that are adapted to a more modern and diverse environment. Furthermore, the lean management ideology is consistent through the lean startup, by realising the value in the empowerment of the front line workers and how decisions should be handled to achieve a viable product for market. Finally, lean software development is the closest to the lean startup from a methodological viewpoint, as it addresses the most suited environment for the employment of the lean startup.

2.7. Lean Theories Summary

The Lean Startup Methodology is an augmentation of theoretical concepts from Lean Thinking, Lean Manufacturing, Lean Management and Lean Software Development into a simplified model for practitioners, using a reductionist approach. In general, the lean theories focus primarily on the internal processes of the company to reduce development time and reduce wasted resources. In comparison, the lean startup methodology takes a different approach to reducing waste, by focusing on customer desires. Rather than producing a certain product, which may or may not exactly match consumer requirements, in the most efficient way possible, the lean startup focuses primarily on the perfect product-customer fit in order to reduce wasted efforts on building undesirable products. In this way, the lean startup methodology moves from a product and process driven approach to a customer driven approach. To further analyse the validity of the shift in focus of the lean startup methodology from a product to a customer driven approach, the next section of this literature review will explore the development and application of strategic management theory as a point of comparison.

2.8. Strategic Management Theory

The lean startup methodology combines key theoretical findings from lean theories into a simplified practical model. As a relatively new area of research, with many components yet to be explored, it is useful to compare the lean startup methodology and lean theories to a similar, but more established, area of the literature, namely strategic management theory. The connection between these two can be considered close enough for comparison as lean theories and the lean startup methodology can be considered management strategies, falling under the umbrella of strategic management theory. As such, this section will explore the comparison of the principles of lean startup and strategic management theory, with the aim of identifying theoretical gaps in the lean startup methodology.

The seminal works of Peter Drucker, Philip Selznick and Kenneth R. Andrews in the 1950s, ‘60s and ‘70s marked a period of transition in the understanding and investigation into business strategy (Andrews, 1971; Drucker, 1954; Selznick, 1957). In the early stages of the development of this area of academic research the theory focused on the internal strategies and processes of a business

(Andrews, 1971; Ghemawat, 2002). The inception of research on business strategy initiated a shift from an internal approach with a product focus, to an external approach with a market and customer focus. Further to the customer focused strategic processes (Wind and Mahajan, 1997), more recent research has indicated another shift in focus, from a customer focus to a market focus that incorporates competition considerations. This key transition brought about theoretical models such as the SWOT analysis (Humphrey, 2005), Porter five forces analysis (Porter, 1979) and the PEST analysis (Aguilar, 1967), which incorporate the wider business environment, including macroeconomic factors such as the supply chain and competition. Porter (1980) argues that a company should focus its strategic efforts on either cost leadership, differentiation, or focus. For each of these three generic strategies a firm must first conduct a comprehensive competition analysis to understand the business model and product offering of competitors to decide which of these three strategies to follow. Porter's generic model is designed to be applied in a variety of different industry contexts as a recommended step in the product development process (Miller & Dess, 1993).

The literature on competition analysis offers a broad choice of various models and techniques to conduct an analysis of the competition (Fleisher & Bensoussan, 2002), identifying competitor focus as a key stage in the market positioning process. Since the 1990s, additional attention has been given to the importance of competition as a point of comparison. According to Gatignon and Xuereb (1997) strategic orientation is defined as the specific approach a firm implements to create superior and continuous performance. It is comprised of customer orientation and competitor orientation, providing a foundation of guidelines upon which to continuously improve a company's performance (Sinkovics and Roath, 2004). Adding a third element, inter-functional coordination, creates what is described as market orientation in the literature (Kanovska & Tomaskova, 2012, p72). As the terms of strategic orientation and market orientation are often used interchangeably throughout the literature, the term market orientation will be used hereafter.

Market orientation is a framework developed by Kohli and Jaworski (1990) to outline the importance of an external market perspective for business strategists. According to Baker & Sinkula (1999), market orientation represents the degree to which firms acquire, distribute, use and ultimately depend on customer, competitor and supplier market information as inputs into the innovation process. Lukas and Ferrell (2000) argue that market orientation and product innovation

are positively correlated, where customer orientation tends towards ‘new-to-the-world’ products, whilst a competitor orientation tends towards ‘me-too’ products. Grinstein (2008) argues that the relationship between innovation consequences and market orientation is stronger in highly competitive markets, but weaker in markets that are technologically turbulent. The literature therefore indicates that it is common for firms operating in established (competitive) markets, and developing similar products to existing solutions in the marketplace, to tend towards a competitor orientation - focusing on the role of competitors in the marketplace to develop the business strategy.

Foreman et al. (2014) argue that the competitive intensity of an industry may moderate the relationship between market orientation and performance. Furthermore, Han, Kim, and Srivastava (1998) argue that a more highly competitive environment puts a greater focus on competitors than in a less competitive environment. This perspective is also supported by Kai-Yu, Wenpin & MingJer (2015), who claim that companies use the success of competitors in the same industry as a motivator to persevere through failure. However, Armstrong and Callopy (1996) recommend that competitor benchmarking should not be used to set objectives for the firm, as focusing too closely on the activities of competitors detracts from logical goal setting for the firm in question. DiMaggio and Powell (1991) argue that companies often model their business strategies and product offerings based upon other, more successful firms in the same industry. Such mimesis occurs in an attempt to enhance efficiency, taking on a proven model of success from a competitor to reduce the uncertainty of utilising an unproven business strategy (Selznick, 1996). These findings indicate that firms utilise an external focus for motivation and inspiration, not just as a means of differentiation. Companies can use the failures and successes of the competition to save resources by implementing features that have been proven to be successful by competitors, whilst refraining from building functionalities that have been proven not to be well received by customers. In this way, a strong market orientation, focusing on the product offering of competitors, links to the principles of lean thinking - maximising the use of scarce resources whilst minimising waste.

2.9. An External Environment Perspective

The current lean startup methodology focuses on interacting only with customers for feedback to provide inputs into the strategic decision making process, without consideration for the wider external environment of the marketplace. Despite some negative findings in the literature (Foreman

et al., 2014), the majority of the literature on strategic management indicates that competitor considerations would be valuable in order to gain a competitive advantage (Kumar et al. 2011; Slater & Narver, 1994; Zhou, Zhou & Su, 2008). Porter (1985) argues that a firm can gain a competitive advantage over competitors by either lowering cost or through product differentiation. As such, to gain a competitive advantage, a firm could first conduct a competitor analysis to assess the competitor's offering to differentiate from.

Benchmarking is an approach to understand and use competitors as a guide for the minimum viable product (Fleisher and Babette, 2003). The strategy of benchmarking is important both conceptually and practically (Clark, 1993). More concisely, benchmarking is an ongoing, systematic process for measuring and comparing the work processes of one organisation to those of another, by bringing an external focus to internal activities, functions, or operations (Kempner 1993). The two benchmarking types identified in the literature are competitive benchmarking and functional benchmarking. Functional, or industry, benchmarking is similar to competitive benchmarking, except that the group of competitors is larger and more broadly defined (Sarkis, 2001). A comparison can be drawn here to lean thinking, where the literature implies the possibility for startup founders to reduce waste and increase efficiency by mimicking the development processes of their competition through benchmarking. The key conclusion to be drawn from the literature is that competitors can be used as an information resource, where a detailed competition analysis can provide direction for product development and business strategy.

In summary, the strategic management literature demonstrates a series of paradigm shifts across the last 60 years, where the traditional literature initially recommended an internal focus on a high quality product, followed by an external focus on the customer, followed by a broader external focus that incorporates the activities of the supply chain and competitors. The first transition, from an internal focus to an external focus, took place after nearly 20 years since the inception of strategic management theory to the literature. Drawing comparisons to the lean startup methodology, which was first developed in its current form in 2011, strategic management theory has had far longer to be challenged, investigated and developed. As the lean theories can be placed within the umbrella of strategy theory, it is not unreasonable to assume a similar transformation of the lean theories, and specifically the lean startup methodology; moving from an internal focus to an wider focus on the external market environment. In the current model, an external focus is

lacking as part of the lean startup methodology, which opposes the recommendations from the literature. Therefore, based upon the extant literature of business strategy, it is reasonable to assume that there may be a gap in the lean startup methodology in the form of an external environment perspective, which could include product development based upon competitor product offerings.

2.10. Literature Review Summary and Theoretical Framework

The literature review has a number of interesting implications. The comparison of lean theories with strategic management theory indicates the development of strategy from an internal focus, concentrating on the product, to an external focus of the customer, to a wider market focus that incorporates the wider external environment. Lean theories have begun to be developed in a similar manner, where traditional lean theories concentrated on internal processes to minimise waste and maximise efficiency, but have more recently shifted focus to concentrate on customer requirements, exemplified with the Lean Startup Methodology. The extant literature frequently argues for a external environment focus, where the more competitive the industry, the greater the focus on competitors should be (DiMaggio and Powell, 1991; Foreman et al., 2014; Han, Kim, and Srivastava, 1998). Furthermore, the literature points towards a wider market focus means of benchmarking and mimicking business and product development, due to the proven customer demand of successful competitors (Kempner 1993; Sarkis, 2001). Such a process is, in itself, is a form of lean thinking, as the company reduces wasted resources by only building products and features with proven demand.

However, despite the findings and recommendations from the literature, the transition to the wider approach of considering the wider market environment for the lean theories and the lean startup has not yet been put into motion. As such, the findings from the literature indicate a potential gap in the Lean Startup Methodology in the form of a wider market orientation; specifically a competitor orientation. This finding can be diagrammatically represented in a theoretical framework, shown below in Figure 1:

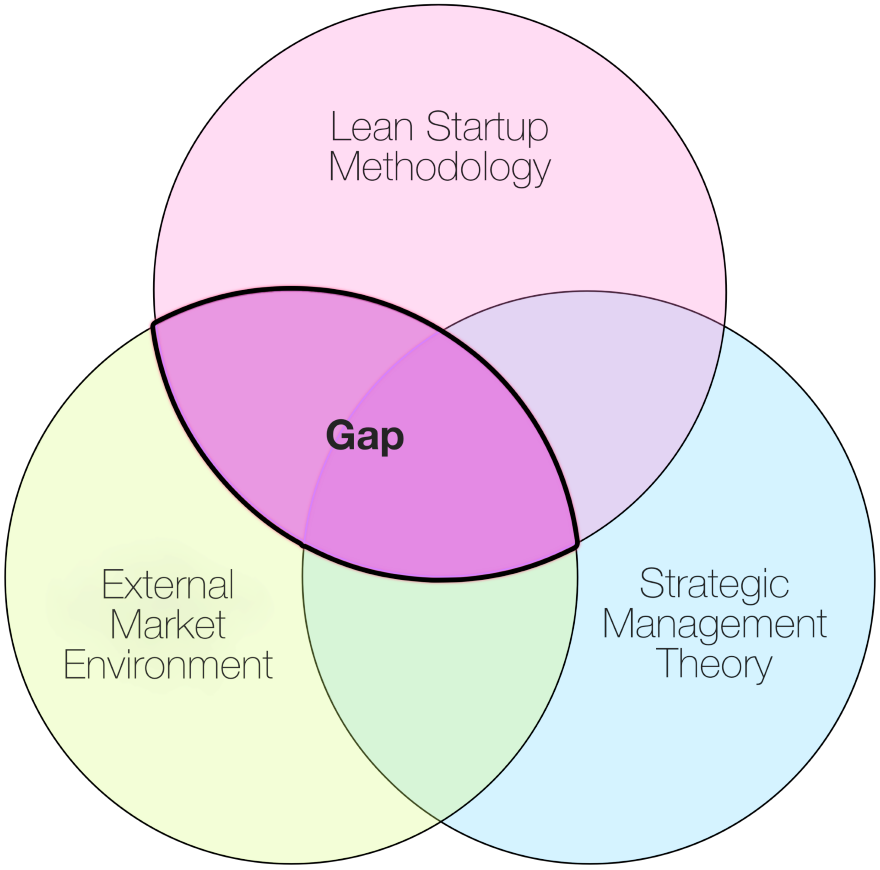

Figure 1: Theoretical Framework

Using the framework, the empirical research for this paper will investigate the gap found in the literature between the lean startup methodology and the external market environment. The assumption drawn from the literature, to be investigated in the empirical research, is that the lean startup could be improved by incorporating a market orientation with more attention paid to competitors in the marketplace.

3. Methodology

The purpose of this paper is to find theoretical gaps in the lean startup methodology and highlight areas that should be challenged or addressed for improvement, based upon the empirical findings. Using a relevant case study that has applied the principles from the lean startup methodology, this paper will explore the practical application of lean principles in comparison to the theoretical recommendations. The theoretical framework from the literature review has been developed to highlight the links between lean theories (specifically the lean startup methodology), strategic management theory and the wider external market environment. Now the findings from the literature will be used to design an empirical study, using semi-structured qualitative expert interviews and criteria for questions based upon the theory. The aim of this paper is to investigate the lean startup methodology and surrounding theories, searching for theoretical gaps in the literature and highlighting areas of the model that could be improved or challenged based upon empirical data. Additionally, this paper aims to assess how closely the lean startup methodology and the surrounding theories are used in practice; identifying areas for further research and development in the methodology. As such, empirical research will be conducted to identify a case that could challenge the use of the lean startup methodology and test the assumption that it could be improved with competitor orientation and competitor analysis. In doing so, the lack of competitor orientation in the lean startup methodology may be identified as a flaw in the methodology.

3.1. Research Design

One company was chosen, Survey Legend, as the aim was to investigate a study with great depth; to evaluate the application of the lean startup methodology within a business. Eisenhardt (1989, p25) explains the use of case study methodology, arguing that “case studies are rich, empirical descriptions of particular instances of a phenomenon that are typically based on a variety of data sources”. This paper will use the deductive approach (Eisenhardt, 1989) to test lean startup theory using a case study, in order to identify theoretical gaps in the lean startup methodology and highlight areas for improvement of the theory. The case study will be conducted and analysed to investigate the application and validity of the lean startup theory in a specific practical setting (Bryman, 2011), therefore fulfilling the purpose of this paper.

Verschuren and Doorewaard (2010) argue that researchers must first decide between breadth and depth for empirical research. Due to the limitations of the specific criteria (see 3.2. Case Selection criteria below) of the study that rule out many companies from being able to participate, the researchers focused on depth of analysis using a qualitative approach. Whilst there are limitations of selecting only one company to be used as a case study, the company chosen underwent a major relaunch and a pivot of the business model, from an internal focus to an external market orientation using principles from the lean startup - in effect providing two independent case studies from the same company to investigate the findings from the literature. A single company, operating in the same industry, but with two cases, provides a good opportunity to investigate the effects of a change in business strategy, comparing a traditional development approach to an approach utilising lean principles. Yin (1994) argues that selecting multiple cases that are chosen for theoretical reasons, being replication, extension of theory, and elimination of alternative explanations, can weaken the empirical findings and make the study more complicated. By selecting a single company, but with two cases, the researchers aim to keep the complexity of the study to a minimum, whilst maximising the validity of the findings.

3.2. Case Selection

The research criteria, detailed below, were devised to form a comparison of results between two different approaches for a new company, specifically where one model used lean theories and principles, and the other did not. To validate the success of following a certain model, the criteria outline that the company should be relatively successful within their industry and also should be offering an online solution in order to have good access to quantitative metrics on business development. Based upon the research criteria, the researchers found the case of Survey Legend AB (www.surveylegend.com) due to their close network with entrepreneurs in the Ideon Science Park in Lund, Sweden. Before the full set of research was carried out, the researchers informally filtered a number of companies to ensure that the one chosen would fulfil the research criteria and would therefore be suitable to be used as the only case study of the research.

The case study was chosen based upon the following research criteria:

- a company that tried, and failed, at using a traditional (non-lean) development approach

- a company that used lean theories in their business strategy and product development
- a company that used lean theories in conjunction with a competitor orientation
- a startup founded within the last 5 years
- a company that has been relatively successful in the industry in which it operates
- an online product solution for quick iteration cycles and clear distinction between versions (lean)
- good access to the CEO/founders and employees that have been with the company from the beginning

The chosen company, Survey Legend, provides an online service to create unique, customisable surveys and was founded in 2010 under the name Survey Supplier (see Appendix 3). This company was similarly filtered by a number of informal conversations with the company founder and an analysis of the website to ensure that the company fulfilled the research criteria. A key contributor to the selection of Survey Legend was that in June 2013, the company underwent a major relaunch, changing name from Survey Supplier into Survey Legend (see Appendix 4). The change of name was brought about by an entirely new business model and development strategy, in part due to the realisation of the lean startup methodology. This company, therefore, offers two detailed case studies which can be used to compare a traditional development methodology, which was unsuccessful, and a methodology based upon lean principles, which was successful. This is a way of explicitly combating validity in a qualitative research study by comparing and triangulating results from different settings, groups, and companies (Yin, 2010). The company was also selected due to the adaptations of the lean startup methodology that Survey Legend made; going beyond the recommended methodology and adding components of an external market focus to improve its effectiveness.

The close proximity to the main office and the good relationship with the CEO allowed for high amounts of access to the founding team for interviews. Moreover, the company has recently been claimed as one of the top 20 survey solutions in the world, fulfilling the criteria of a relatively successful company (Guay, 2015). However, the selection of Survey Legend as the sole business to be used as a case study also has its drawbacks. Availability bias and the potential confinement of the applicability of the results to the context of startups in Lund or in Sweden are negative factors that should be considered. Due to time and budget constraints it was not feasible to continue the search for other businesses that would also fit the selection criteria.

The first three criteria were selected as this is the basis of the study - to find a company that has used both a traditional approach and then lean theories for company and product development, but which has focused on competitor analysis for the development process. The remaining criteria were selected to ensure access to a large amount of data for analysis. The opportunity for very good access gave the researchers the basis for a firm selection for a single case (Yin, 1994). Yin (2010) argues that it will strengthen the study by having a high exposure to the company and the individuals as this will create a deeper understanding of the case studies in order to triangulate results and compare findings more consistently.

3.3. Data Collection Method

Each of the five semi-structured interviews were conducted in the Survey Legend office, taking over an hour each, to ensure the interviewees felt comfortable in a familiar setting. The interviews were on a one to one basis, with a semi-structured question approach to enable the interviewee to elaborate as much as desired for each question. Each of the interviews were recorded, transcribed and then analysed for meaning (Berg, 2004; Novick, 2008). Notes were also taken to catalogue the more important data for easier transcribing and categorising (Bluhm et al., 2011). The research was conducted in a way to maintain progressive focus on qualitative analytic techniques and to draw from the information collected and enhance the focus (Bennett, 2003). In order to validate the findings, the interviews were conducted with the CEO of the company and another team member for cross analysis (Bygrave, 2006).

After each interview, the findings were compared to the findings from the literature to provide the most relevant set of questions to be used for the next interview (Bennett, 2003). In this way, the researchers were able to deduce the most appropriate questions to ask in order to achieve the most valid and comprehensive set of results to fulfil the research aims and objectives, learning more and more about the internal and external processes of Survey Legend from each interview (Thurston, 2012). The semi-structured questions (see Appendix 5) were developed throughout the interviews process and based upon the recommendations from the literature, using the theoretical framework.

3.4. Data Collection and Analysis

Five semi-structured interviews of an average of 1 hour each were conducted with members of the founding team of Survey Legend. The interviews were face-to-face and recorded with an audio recorder. Compared with other forms of data collection, such as surveys or phone call interviews, the face-to-face, one-on-one interview allows for a much deeper analysis of the meaning of the respondent, due to various non-verbal communications that can take place (Yin, 2010). Each interview was conducted in an informal manner, beginning with a period of small talk to ensure that the respondents felt comfortable in the situation and able to fully divulge information about their work and experience. The full set of semi-structured interview questions can be found in Appendix 5.

The interviews were structured to progressively learn about Survey Legend and the business model used for business and product development, analysing the findings from each previous interview to shape the focus for the next (Cope, 2005). The first interview was used to establish the timeline of the company and key milestones since its establishment. From the findings of the first interview, the researchers identified two distinct cases: Survey Supplier and Survey Legend. The second interview asked questions to reveal the details of the two different case studies and the business models used for each. The findings indicated a traditional, internal development approach for Survey Supplier and an adapted lean startup methodology used for Survey Legend. The third interview then questioned the details of the adapted lean startup methodology to identify how the model was adapted and in what way. The findings identified a market orientation, where Survey Legend used information from the external market environment to make decisions about product development. The fourth interview probed the process by which Survey Legend analysed data and utilised it within the development strategy. The findings identified that a detailed competition analysis was undertaken to assess market positioning and the minimum viable product needed to be competitive within the industry. The final interview was an explanation of the competitor analysis tools used by Survey Legend and the findings from the market analysis, visually presented in a series of powerpoint slides.

A table with details of the interviews can be found in Figure 2 below:

Interview	Date	Time	Interviewee	Transcribed
1	23/03/15	10:00 to 11:00	Jasko	No
2	26/03/15	10:00 to 11:00	Jasko	No
3	30/03/15	14:00 to 15:00	Robert & Jasko	No
4	02/04/15	10:00 to 11:00	Jasko	No
5	07/04/15	11:00 to 12:00	Jasko	No

Figure 2: Interview Details Table

After the interview process, all of the interviews were subsequently reanalysed and compared with the recommendations from the literature to draw conclusions. By progressively analysing the responses from each interview in order to create questions for the next, the researchers were able to gather a much deeper level of data from the five interviews. In this way, the data represents a more comprehensive account of the development of the two cases, Survey Supplier and Survey Legend, than could be achieved if all of the questions were designed before the interview process began. Yin (2010) states that using one to one qualitative studies based on open-ended interview syntax, rather than numerical data, can enhance the depth into a case study. By creating a conversational interview technique on a one to one basis, Yin (2010, p32) states, "illustrates an important topic, revealing both the interviewee's information and perspective about the topic. The dialogues thus form the actual data for the entire study."

Eisenhardt (1989) states that capturing the viewpoints of the participants in the study is how the qualitative research will provide solid results that can be cross referenced with co-workers in the study, providing transparent and valid findings. Triangulating the data collected from Jasko with Robert and the other members of the team adds to the credibility and trustworthiness of the study (Yin, 2010). Therefore, Yin (2010) advises that this study should not be based on a questionnaire, but rather interviews, so the conversation can evolve. This research will be driven to explain and unearth true underpinnings of a concept in real world terms. The dialogues will form the entire data used for the study. The deductive approach will let the interviews take a categorical approach based on common forms of actions that will create the relevant data that needs to be collected (Yin, 1994).

The recommended methodic approach by Yin (2010) created a dialogue that evolved so the questioning was based on our continual findings. These findings were then analysed to identify themes and patterns in the development process of the case study company, linking practical actions to theoretical principles by comparing the results with the findings from the literature. Identifying these links both enabled more accurate questioning for subsequent interviews and also set the foundation for a deep analysis of the results to fulfil the purpose of this paper. In so doing, the key areas for improvement and alteration to the model will be approached and left open for discussion for further empirical studies on this new phenomenon.

In summary, the main points in the approach to the analysis were:

1. The questions would evolve throughout the interviews.
2. The researchers would review the interviews and register themes in the product development strategy.
3. The researchers would then relate changes in product development strategy to findings from the literature to assess how closely the theoretical recommendations matched practical application.

3.5. Validity and Reliability

The interview process was designed to probe the reasons behind the decisions that were made to develop the Survey Legend company and its product offering. Numerous interviews were conducted, asking the same or similar questions many times to draw out consistent results to be used as examples in the findings (Strauss & Cobin, 2008). Furthermore, an interview was also conducted that included Robert, one of the other team members of Survey Legend, to confirm the opinions of the founder Jasko. Robert's input also provided an independent perspective on the decisions that were made and their effectiveness. Through conducting the interviews in such a way, the validity and reliability of the results from this case study were increased. The purpose of this research was to explore the detailed account of one startup that first used an internal approach to business and product development, followed by an approach that used the lean startup methodology together with an external market environment focus, in order to identify potential flaws in lean theory and the lean startup methodology. A single company was chosen, which offered two distinct case studies, using different approaches. The validity and reliability of the results is favourable

using such an example as many of the variables remain the same - the same industry, a similar product offering and the same founding team.

3.6. Methodology Summary

Survey Legend was chosen to be the case study for the empirical research of this paper as the company offered two case studies; an internal development approach that focused on the product and did not consider the wider external market, and a second case that applied lean theories in conjunction with a competitor orientation strategy. The chosen method of data collection was chosen to be interviews as this allowed for the deepest level of data collection and analysis, whilst avoiding unintentionally biasing the responses through assumptions made in the questions, as much as possible. The interviews were designed to be progressional to enable a deeper analysis of the data gathered. Using open ended questions during the interview allowed the respondents to speak freely and convey the desired meaning about the story of the company, identifying the two case studies and the potential gap within the lean startup methodology.

4. Empirical Results

The aim of the interviews was to extract qualitative data from the company, specifically from the founder Jasko, to progressively develop the interviews to enhance the empirical findings around the similarities and gaps between the lean startup methodology and lean theories. As outlined in the Methodology section, specifically 3.4. Data Collection and Analysis, the focus of questioning for each new interview was dependent on the findings and analysis of the interview that preceded it. For simplicity and clarity, the findings will therefore be presented with a chronological approach so the interview findings can be followed like a conversation and empirical data can be extracted to reveal themes and the progression of findings. The interviews began from a broader perspective of Survey Legend as a company and then progressively focused more into the details of the company's product development. See below for a summary of the interview analyses. For the extended interview analysis and relevant quotations, see Appendix 6.

Interview 1 - The Company Timeline

- 2010 Survey Supplier did not implement lean theories or principles.
- With little customer feedback and high competition with other solutions in the online survey market, Survey supplier was unsuccessful.
- A team reformation happened, new developers and designers were recruited.
- Internal iteration was used, this was still not sufficient to provide a USP.
- Identifying that the solution offered little value to end users, customer feedback was collected and integrated into the iterative product development cycle.
- It was identified that customers required a diverse range of functionality, with high customisability, on a smooth running platform.
- Multiple user groups were targeted using varied pricing strategies, reducing risk and allowing for a greater presence in the market.
- Loyal users and experienced online survey users would become most valuable for insights into the market and product value creation.

Interview 2 - Two Development Approaches

- Survey Supplier was created with internal through processes, no customer or competitors were used in the analytical development for a USP.
- With no theoretical principles, Survey Supplier offered little functionality, which forced users to switch to more versatile competitors with more valuable offerings.
- Survey Legend adopted lean principles from the lean startup methodology and lean thinking, as well as an additional external focus (external focus being competitor analysis and iterative design).
- Sustainable demand was made from external interactions that used customers to market solutions to guide the offerings.

Interview 3 - Realisation of a More Suitable Model

- In the third interview, Robert joined Jasko to discuss the methodology that created the product offering and validate previous findings while giving his own insights to Survey Legend from a developer's perspective. Robert identified two distinct stages of the company development: the first unsuccessful launch focusing on the product, but ignoring the wider market, and the second launch with the product offering based upon the competition followed by the lean startup iteration process.
- Once market research was complete, as competitors had analysed the market and customers, Survey Legend integrated customer needs into the product development process. Using the latest technology to keep up with platform providers and the customers' needs at the speed of demand.
- Competitor offerings were matched with functionality and strong branding of Survey Legend.
- Feedback incentivised the shaping of the solution and tailored the product to customers.
- Meritocracy and internal drive in the team helped create the best environment for a lean development cycle where the customers based their wants for Survey Legend that would succeed their competitors.

- Market and industry movements were observed, leading to adjustments to utilising relevant technologies, such as adapting the technology to Apple's latest releases to capture the new market and customers of other products.

Interview 4 - Competitor Orientation

- Jasko used the competitors as benchmarks.
- By copying the best products with the highest demand and adding Survey Legend branding, it proved faster than developing a new product which would need to be tested and iterated with customers.
- The Survey Legend MVP was not the minimum needed for a customer to be able to use the product, but, as Jasko defines it, the minimum standard to be competitive within the industry.

Interview 5 - Competition Analysis

- The key components of Survey Legend's competition analysis can be found in Appendix 9.
- Firstly, Jasko analysed the market and how the solution could compete. This was achieved when his developer, Johan, created an in depth competitive analysis of the online survey market, researching the top 50 direct competitors and listing what they offered customers and ranking them accordingly. The features and offerings by the competitors were compared to the pricing mechanisms and would form Survey Legends pricing strategy.
- The MVP of Survey Legend would be to offer all of the free features that the best online survey companies offered.
- Survey Legend began to use lean principles for product development (maximising efficiency and minimising waste). In summary, Jasko looked to competitors for inspiration, conducting a detailed competitor analysis in order to benchmark his product offering based upon competitor features. By realising competitor features were not compatible with iPads, Jasko drove Survey Legend to be one of the strongest on the market on this device, and as the popularity for this apple product grew, so did Survey Legend.

A summary of the Survey Legend team members and their roles can be found below:

- Jasko Mahmutovic: Founder & CEO
- Robert Michalski: Software Developer
- Kiarokh Moattar: Graphic Designer
- Rick Wahl: Chief Product Officer
- Bjarne Bülow: Senior Developer

For further information on the Survey Legend team members, see Appendix 7.

For more information about the Survey Legend product, see Appendix 8.

5. Analysis and Discussion

The purpose of this paper is to find theoretical gaps in the lean startup methodology and highlight areas that should be challenged or addressed for improvement, based upon the empirical findings. Using a relevant case study that has applied the principles from the lean startup methodology, this paper will explore the practical application of lean principles in comparison to the theoretical recommendations. The chosen company, Survey Legend, gave an enlightening account of the product and company development of a startup operating in an established market. The remainder of this section will compare the results of the two case studies, Survey Supplier and Survey Legend, referring to the literature and the theoretical framework to discuss the implications of the findings and whether or not the practical findings from the research conducted for this paper are consistent with the lean startup theory from the literature review.

The remainder of this section will discuss the three areas that create the framework so that we can compare and analyse to form our conclusion.

- Lean Theory and The Lean Startup Methodology; where we will determine if there is a clear and distinct difference between the approach taken by Survey Supplier and Survey Legend that links to the said theories.
- Strategic Management Theory; This theory will identify the relationship between strategic management theory and the two case studies; survey supplier and survey legend.
- External Market Environment; at this point we will take the results from the Survey Legend case study and analyse if they correspond to the recommendations from the market competition literature, rather than the lean literature.

By displaying the findings in this way we are able to identify each component of the theory independently first, as this validates each part of the theory that has been used within the case study. From this the components can be compared and any gaps between the literature and practice identified.

The literature framework is shown below in Figure 3:

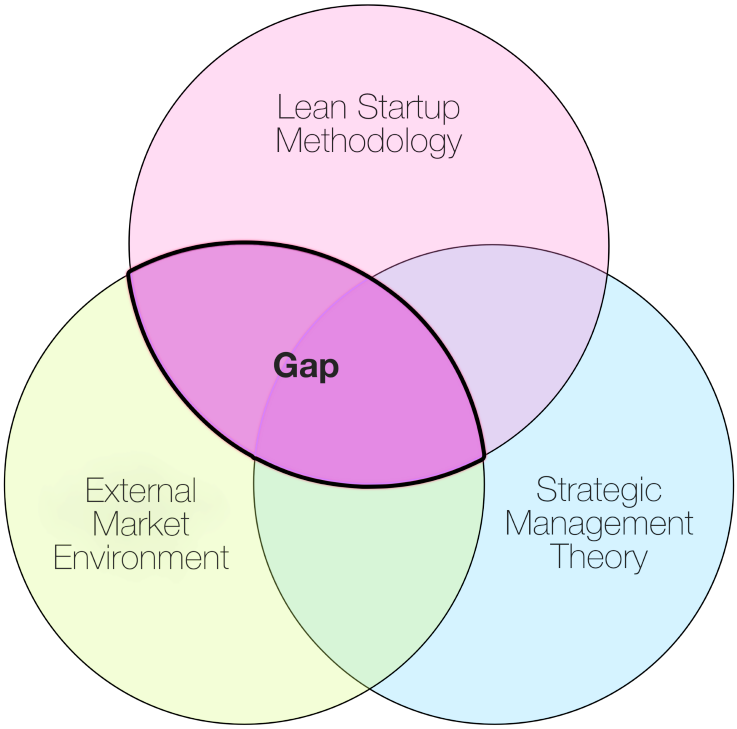

Figure 3: Theoretical Framework

5.1. Lean Theory and The Lean Startup Methodology

In the case of Survey Supplier, the team did not follow the recommendations of the literature regarding lean theories or the lean startup. The approach taken was internally focused, where building a product according to the specifications devised by Jasko was the main objective. Customers were not approached to provide feedback for product development, so all developments were made based upon the team's opinions. However, it could be argued that there were some elements of lean management present in the approach taken. Drawing upon the findings from the literature, Survey Supplier did utilise concepts of 'attribution to customer placement and organisation' and the 'use of team conferences and value circles' (Jackson, 1996). However, the utilisation of lean principles was minimal for Survey Supplier. The result of this approach was a lack of information on customer demands and what was required for a strong product-customer fit, ultimately concluding in the failure of Survey Supplier.

Comparatively, it was found that Survey Legend followed many principles from lean theory, even without prior knowledge of the recommendations from the literature. The company used flash demonstration software to test the desired product solution on customers at the beginning of the development process, saving time and the possibility of wasted developments (Womack and Jones, 2010). Focusing on customers during the development period allowed Survey Legend to follow principles of lean production, such as customer value, flow and perfection (McCurry and McIvor, 2001; Wanga and Chenb, 2011), and lean product development, such as 'add nothing but value' and 'center on the people who add value' (Poppendieck, 2011). Additionally, Jasko employed lean thinking and lean management principles for his team, concentrating on principles of refining methods, educating employees to make choices about value and implementing a lean resource chain (Smith and Hawkins, 2004).

The lean management decisions made by Jasko for Survey Legend resulted in a close comparison to the recommendations of the lean startup methodology (Ries, 2011), where many of the key principles of the methodology were followed despite Jasko having a weak knowledge of the lean startup methodology during the development of Survey Legend. The team used continual deployment to add features even after the launch. The solution was launched as an MVP, although Jasko's definition of an MVP differs from the definition offered by Ries (2011). Finally, the company operate using an iterative process of testing the product on customers to gain feedback to be used for further product development. In summary, therefore, Survey Legend unintentionally utilises many of the key principles of both lean theories and the lean startup, drawing close parallels to the recommendations of the literature.

Regarding the lean theories and the lean startup methodology, there is a clear and distinct difference between the approach taken by Survey Supplier and Survey Legend. The introduction of lean principles from the lean theories and the lean methodology changed the focus of the company from an internal focus on product development to an external focus that considered customer feedback to shape product and company development. The findings from the literature coincide with the findings from the two case studies, where using the lean startup methodology improves the probability of a successful startup, compared to the traditional, internally focused approach. However, the development of Survey Legend has been based upon a wider perspective than just a

product and customer orientation (Gatignon and Xuereb, 1997), which will be explored in the next section.

5.2. Strategic Management Theory

In the case of Survey Supplier, there was a clear focus on the internal strategy of the company, linking to the early strategic management theory (Andrews, 1971; Ghemawat, 2002). This traditional approach to product development resulted in a product focused strategy where due to a lack of customer input, the team found that they were building a solution that was not in high demand from users. This was highlighted in the second interview by Jasko explaining how new customers would quickly leave Survey Supplier and move to a competitor, as they had more required features. This implies that the customer-product fit was not strong, whilst the strategy chosen to develop the product did not account for customer feedback, limiting the ability for the team to adjust the product to better suit customer demand. Relating this to the theory, it is clear that Survey Supplier did not utilise a customer nor a market orientation (Kohli and Jaworski, 1990).

For Survey Legend, Jasko highlighted a clear competitor orientation regarding product development and strategy, identifying the need to focus on the activities of the competition to sustain a competitive advantage and improve company performance (Gatignon and Xuereb, 1997; Sinkovics and Roath, 2004). Jasko also highlighted the advantages of a market orientation over a customer orientation, stating that the path of product development has already been identified and proven by the competition, reducing the risk and increasing the probability of success. This ideology is supported in the literature by DiMaggio and Powell (1991) as well as Selznick (1996), who argue that firms model their strategies on more successful firms to increase efficiency and avoid development problems. Drawing comparisons to the literature, Jasko confirmed his use of competitors as a source of inspiration, not just differentiation, validating the theoretical findings.

The strategic management literature demonstrates a development in the theory over 60 years from an internal focus, to a customer focus, to a market focus. The case of Survey Supplier indicates the same rudimentary approach of the early strategic management literature. In comparison, Survey Legend compares to the more contemporary theoretical recommendations from the strategic management literature, using an approach that considers the wider external marketplace, including a

competition orientation. The failure of Survey Supplier and the continued success of Survey Legend indicates that the more modern recommendations from the strategic management literature are more conducive to a successful startup. Therefore, the recommendations from the literature coincide with the findings from the empirical research, advising that startups in established markets should be market orientated, not only customer orientated, as is implied in the lean startup methodology.

5.3. External Market Environment

For Survey Supplier, only a very brief competition analysis was undertaken. The result was that Survey Supplier did not offer a package of features that customers deemed more valuable than those offered by the competition in the market. Such an internal focus not only restricted Survey Supplier from asking customers their perceived value of the current offering, but it also prevented a feedback loop to provide recommendations about future developments or adjustments.

In comparison, the results show that Survey Legend unintentionally followed the recommendations of the literature for their external market environment approach, including competitor identification, competitor analysis and competitor benchmarking (Clark & Montgomery, 1999; Fleisher & Babette, 2003; Porter, 1980). Reflecting back to the literature, Chen (1996) views competitor identification as a way organisations determine their similarities in the marketplace or to attain comparable capital. Competitor analysis is where the details of product offering, such as the features and functionality, are assessed in terms of threats or potential benefits to business development (Porter, 1980; Peteraf & Bergen, 2003). Survey Legend undertook detailed competitor identification and competitor analysis processes to assess their market positioning and determine similarities with competitors. Finally, the literature outlines benchmarking as a tool for founders to compare their product offering and strategy against competitors in the marketplace to ensure a similar level of quality in order to retain and expand their market share (Fleisher and Babette, 2003; Kempner 1993). Again, Survey Legend unknowingly followed the literature recommendations for competitor analysis and benchmarking; minimising risk and maximising the success by following a proven business model and product offering. See Appendix 9 for Survey Legend competitor analysis slides.

Jasko described a detailed competition and feature analysis as a tool to identify key areas of consumer demand and develop a suitable MVP. In contrast to the definition of an MVP as described

by Reis (2011), Jasko argued that an MVP should be the minimum viable product offering relative to other competing products offered by competitors in the same industry. This is a key distinction that incorporates one of the lean startup methodology principles directly with market competition theory, where the definition of Jasko's MVP is dependent on the consideration of competition within an industry sector. Therefore, the results from the Survey Legend case study correspond to the recommendations from the market competition literature, rather than the lean literature.

5.4. Comparing The Research Findings To The Literature Framework

The comparison of the two case studies, Survey Supplier and Survey Legend, provides an example of where more recent theoretical recommendations are more effective than less recent recommendations. In the case of Survey Legend, without any previous knowledge of strategic management theory, market competition theory or even the lean startup, Jasko identified a logical process to deliver a successful result for Survey Legend that mirrored the recommendations from different areas of the literature. The theoretical framework derived from the findings in the literature is exemplified by Survey Legend, which highlights the need for the addition of a market orientation, specifically a competitor orientation, to the lean startup methodology in order to utilise the models and processes of competitors to increase the efficiency and probability of success of product and business development. As such, the framework has been updated to demonstrate the key finding from the literature and the empirical research. See Figure 4 below:

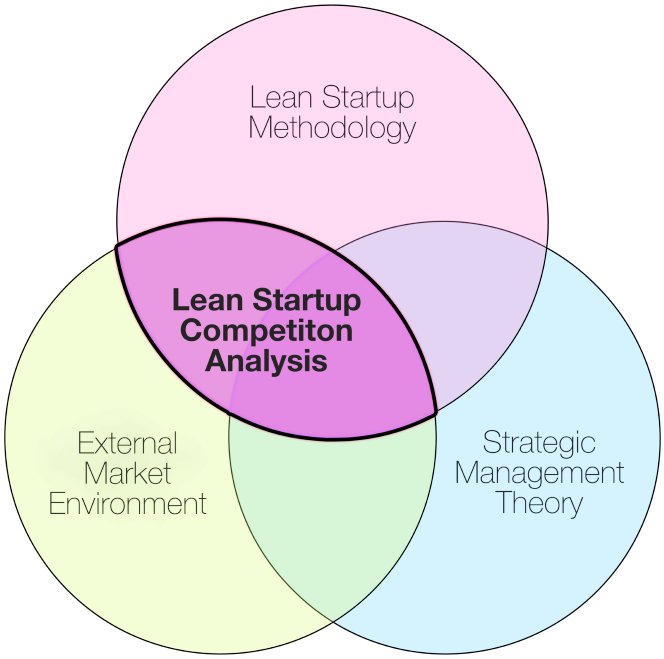

Figure 4: Amended Theoretical Framework

The recommendations from the literature indicate that successful product and company development requires a consideration of the activities of the competition within the same marketplace (Clark & Montgomery, 1999; Fleisher & Babette, 2003; Porter, 1980). The lean startup methodology does not include competition analyses as a necessary component of product development. The findings from the Survey Legend case study indicate that competition analysis is a useful, if not necessary, addition to the lean startup methodology to effectively develop a product. In summary, the Survey Legend case study has validated the assumption that, in this specific context at least, the lean startup methodology should include competition analysis as a tool to further increase efficiency and decrease wasted resources for startups operating in established markets.

6. Conclusion

6.1. Research Aims and Objectives

The aim of this paper was to investigate the lean startup methodology and surrounding theories, to search for theoretical gaps in the literature and to highlight areas of the model that could be improved or challenged based upon empirical data. Additionally, this paper aimed to assess how closely the lean startup methodology and the surrounding theories are used in practice; identifying areas for further research and development in the methodology. The findings from the literature identified a gap between the lean startup model and strategic management theory in that the lean startup methodology does not take into account the competition and the external marketplace environment for established markets. As the literature on strategic management is far more extensive, and can be sourced from an earlier date, the development of this theory from an internal product focus, to a customer focus, to a competitor focus, could offer development insights for the younger area of lean theory. The literature indicated that lean theory has indeed developed from a product focus to a customer focus, but has yet to add the breadth of a market and competitor focus. The empirical research, in the form of two case studies taken from one company, clarified the identified gap in the literature, also highlighting the recommendation for a competitor analysis component to be added to the methodology. The finding indicated that whilst there are many areas of the lean startup methodology that are used as recommended in practice, there are also areas, such as a competition analysis, that have yet to be explored fully in the literature.

6.2. Research Implications and Contributions

The implications of this paper are that both the literature and case study findings recommend that the lean startup methodology should incorporate an additional component of competition analysis in order to further increase efficiency, reduce wasted resources and increase the probability of success for startups. The key contribution to both the literature and for practitioners is that a market orientation and a competition analysis has been identified as a necessary addition to the lean startup methodology for established markets, which could commence a movement to update to the entire lean startup methodology to incorporate a market orientation approach. As the lean startup is a

methodology used by a large number of practitioners, there are strong implications for improving such a popular methodology.

6.3. Future Research

The findings of this paper indicate the need for an addition of competition analysis to the lean startup methodology. However, the limited scope of using just two case studies, with one company, has implications for the generalisability of the findings of this paper. As such, future research could be conducted to verify the findings of this paper using a greater number of companies for empirical research. From the case study of this paper alone it was outlined that the founder, Jasko, devised an augmented model of the lean startup to incorporate competition analysis to successfully develop the Survey Legend solution. A larger, more comprehensive study of models used by a variety of different business owners, from a variety of business sectors could provide insight into trends of how founders have adapted the lean startup methodology to best suit the context and environment of their specific startup. Finding trends of how adapted models of the lean startup are used in practice could result in further improvements to the traditional lean startup methodology, developing the model into a more comprehensive theoretical framework that, when implemented correctly, could result in greater probabilities of success for product development in startups.

6.4. Summary

The lean startup methodology is a popular model that has been used by startups and company founders for the last 5 years. The lean startup has revolutionised the way in which product development occurs, shifting away from the traditional approach of building a product to full functionality before potential customers test its utility. Whilst it is clear from that the lean startup offers many advantages over other product development models, it is not without its limitations. The assumption of the model is that any new startup can continually iterate in order to best suit the customer's needs. However, the empirical data of this paper has demonstrated that the lean startup methodology is not a perfect fit for every context. For established and competitive markets, the literature and the empirical findings of this paper indicate that the lean startup methodology should be updated to include competitive analysis and competition benchmarking in order to improve the efficiency of product development for startups.

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Appendices

Appendix 1: A Comparison of Lean Principles and Traditional Principles

(Blank, 2013)

Appendix 2: Key Components of the Lean Start Up Methodology

- The Minimum Viable Product (MVP) – the product created which allows maximum learning from customers with the least input.
- Continual Deployment (Specific to software development) – the continual implementation of code into the live product once it has been written.
- Split Testing (A/B testing) – the offering of two different products to the same group to observe the behaviour and to measure certain features of the product.
- Pivot – this is a purposeful change in the direction of the business to check new propositions about the business model. Furthermore, a pivot is a change in one or more or the blocks on the business model canvas.
- Innovation Accounting – entrepreneurs will be able to capitalise on the results and sustain liability by gaging development, arranging indicators and milestones, and ranking.
- Build Measure Learn – this loop process if fundamental to create products from ideas, it uses a simple developmental process: Idea, Build, Code, Measure, Data, and Learn.

Appendix 3: Survey Supplier Company Registration Certificate

Bolagsverket

851 81 Sundsvall
Tel: 060-18 40 00 Fax: 060-12 98 40
bolagsverket@bolagsverket.se www.bolagsverket.se

FÖRSÄTTSBLAD

Registreringsdatum	Kungörelsedatum
2010-10-15	2010-10-19
Diarienummer	Enhet
511354AB/10	S2

ÖHRLINGS PRICEWATERHOUSE COOPERS
EWA FORSELL

405 32 GÖTEBORG

556819-1810 Survey Supplier ENT AB

I ärendet, med ovan angivna diarienummer, har ändringar registrerats beträffande:

- firma
- bolagsordning
- säte
- räkenskapsår
- företrädare/firmateckning
- revisor
- postadress
- e-postadress

Har du inte fått ett registreringsbevis kan du beställa det på www.bolagsverket.se.

Anmäl alltid ny adress till Bolagsverket
Det räcker alltså inte att bara ändra adressen hos Svensk adressändring. Exempel på andra ändringar som du ska anmäla till oss är företagets eller föreningens namn, företrädare och firmatecknare.

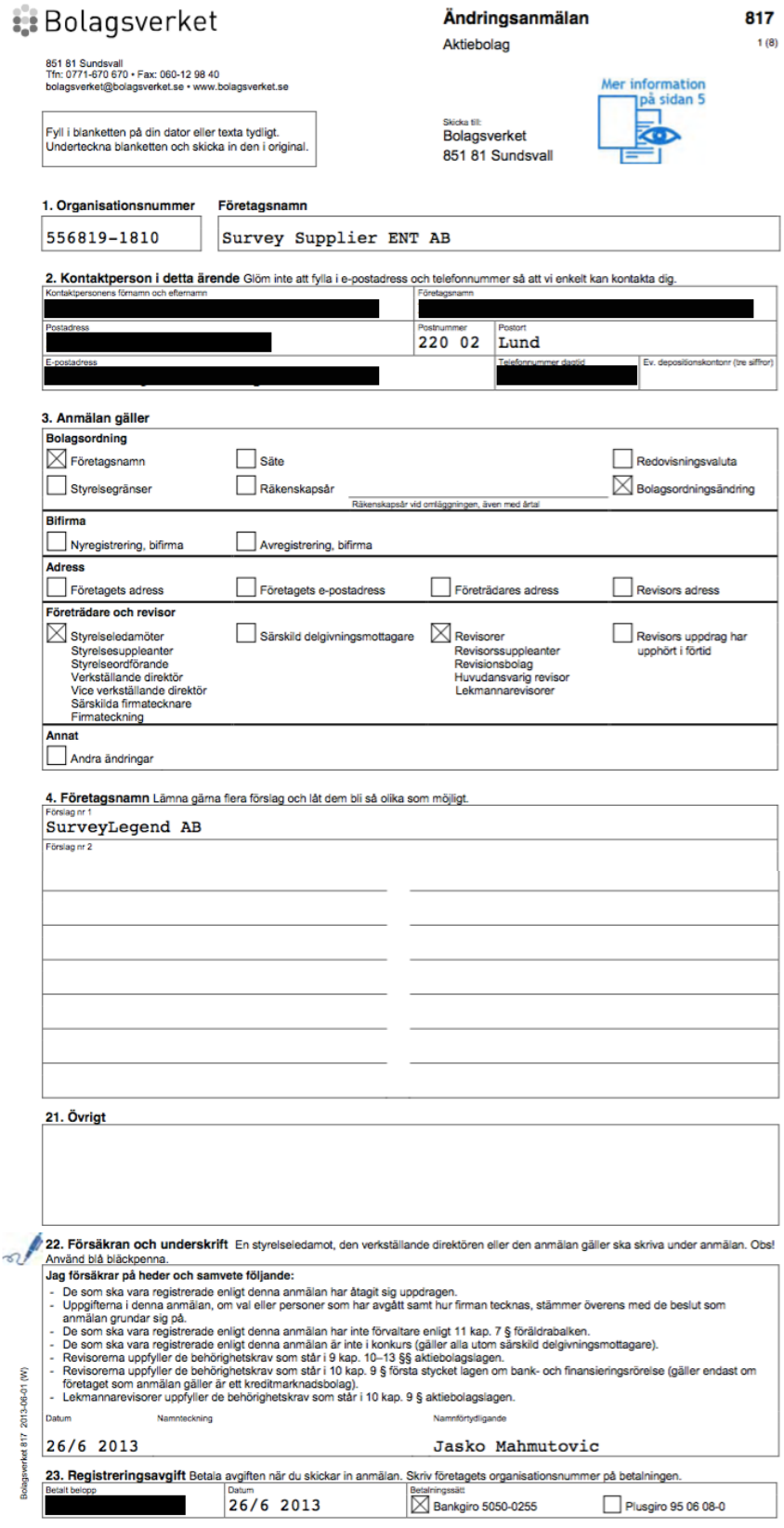
Anmäl gärna ändringarna på www.företagsregistrering.se.

Du kan söka och beställa fakta om företag via våra e-tjänster Sök företagsfakta och Näringslivsregistret.

Alla våra e-tjänster hittar du på www.bolagsverket.se. Där hittar du också blanketter och nyttig information.

RFBLAA 2006-03

Appendix 4: Survey Legend Company Name Change Document



Bolagsverket

Ändringsanmälan **817**
Aktiebolag 1 (8)

851 81 Sundsvall
Tfn: 0771-670 670 • Fax: 060-12 98 40
bolagsverket@bolagsverket.se • www.bolagsverket.se

Mer information på sidan 5

Fyll i blanketten på din dator eller texta tydligt.
Underteckna blanketten och skicka in den i original.

Skicka till:
Bolagsverket
851 81 Sundsvall

1. Organisationsnummer 556819-1810

Företagsnamn Survey Supplier ENT AB

2. Kontaktperson i detta ärende Glöm inte att fylla i e-postadress och telefonnummer så att vi enkelt kan kontakta dig.

Kontaktpersonens förnamn och efternamn: [redacted]
Företagsnamn: [redacted]
Postadress: [redacted]
Postnummer: 220 02
Postort: Lund
E-postadress: [redacted]
Telefonnummer dagtid: [redacted]
Ev. depositionskontonr (tre siffror)

3. Anmälan gäller

Bolagsordning
- ☒ Företagsnamn
- ☐ Säte
- ☐ Redovisningsvaluta
- ☐ Styrelsegränser
- ☐ Räkenskapsår — Räkenskapsår vid omläggningen, även med årtal
- ☒ Bolagsordningsändring

Bifirma
- ☐ Nyregistrering, bifirma
- ☐ Avregistrering, bifirma

Adress
- ☐ Företagets adress
- ☐ Företagets e-postadress
- ☐ Företrädares adress
- ☐ Revisors adress

Företrädare och revisor
- ☒ Styrelseledamöter, Styrelsesuppleanter, Styrelseordförande, Verkställande direktör, Vice verkställande direktör, Särskilda firmatecknare, Firmateckning
- ☐ Särskild delgivningsmottagare
- ☒ Revisorer, Revisorssuppleanter, Revisionsbolag, Huvudansvarig revisor, Lekmannarevisorer
- ☐ Revisors uppdrag har upphört i förtid

Annat
- ☐ Andra ändringar

4. Företagsnamn Lämna gärna flera förslag och låt dem bli så olika som möjligt.

Förslag nr 1: SurveyLegend AB
Förslag nr 2:

21. Övrigt

22. Försäkran och underskrift En styrelseledamot, den verkställande direktören eller den anmälan gäller ska skriva under anmälan. Obs! Använd blå bläckpenna.

Jag försäkrar på heder och samvete följande:
- De som ska vara registrerade enligt denna anmälan har åtagit sig uppdragen.
- Uppgifterna i denna anmälan, om val eller personer som har avgått samt hur firman tecknas, stämmer överens med de beslut som anmälan grundar sig på.
- De som ska vara registrerade enligt denna anmälan har inte förvaltare enligt 11 kap. 7 § föräldrabalken.
- De som ska vara registrerade enligt denna anmälan är inte i konkurs (gäller alla utom särskild delgivningsmottagare).
- Revisorerna uppfyller de behörighetskrav som står i 9 kap. 10–13 §§ aktiebolagslagen.
- Revisorerna uppfyller de behörighetskrav som står i 10 kap. 9 § första stycket lagen om bank- och finansieringsrörelse (gäller endast om företaget som anmälan gäller är ett kreditmarknadsbolag).
- Lekmannarevisorer uppfyller de behörighetskrav som står i 10 kap. 9 § aktiebolagslagen.

Datum: 26/6 2013
Namnteckning:
Namnförtydligande: Jasko Mahmutovic

23. Registreringsavgift Betala avgiften när du skickar in anmälan. Skriv företagets organisationsnummer på betalningen.

Betalt belopp: [redacted]
Datum: 26/6 2013
Betalningssätt: ☒ Bankgiro 5050-0255 ☐ Plusgiro 95 06 08-0

Bolagsverket 817 2013-06-01 (W)

Appendix 5: Semi-Structured Qualitative Expert Interview Questions

The Interview Guideline

The interviews began with a formal introduction regarding the purpose of our research. The objectives were briefed to Jasko, with the relevant topics and theories that were the basis for our study. The experts were Jasko, the CEO, and Robert, the chief developer, who were briefed about their roles in the study and what we hoped to draw from this. The interviews were recorded and later analysed accordingly to draw results and future implications. The questions were in no particular order as the flow of the interview was semi-structured and changed direction frequently.

Question	Motivation
About the interviewee	
Can you please explain your training and experience? How is this relevant to the venture?	Understanding the background of the founder.
What is your role within the company and can you describe the roles within the team and the jobs they are doing?	Modifying the questioning based on the roles of the founder and team.
Can you explain the progress of the venture and where you are now? How did reach this stage?	“Grand tour” questions are to permit a freedom of story-telling to create a relaxing environment and paint the bigger picture of the development of the business.
Experience with Lean Theories	
What do you know about the Lean theories?	To find out the level of understanding regarding Lean theories.
How have you applied the Lean Startup?	To understand the interviewees application of the Lean Startup.
Did you, and if so, where have you applied the other theories? Lean software development development/management/manufacturing/ thinking?	To test the knowledge of practical activities to the theoretical models and literature.
What is the level of implication and use of the theories?	Adjusting the interview structure accordingly.
Are the methodologies being consciously used or part of an evolution of the Lean Startup?	The weighting of the methodologies used.

Question	Motivation
Experience with Lean Theories	
Can you describe examples of where the Lean theories have been used and the success of them? Also any criticisms.	To draw sections about exact practices with the theories.
What was the strategic intent when applying the Lean Startup and the theories?	Understand the most relevant desire to achieve the application.
What culture is needed to successfully implement these theories into the business?	Find out what cultural impactions there might be to applying the theories and methods.
What does a leader/team need to do in order to successfully use the theories?	What team is needed and how should they be utilised.
Balancing The Theories	
What is the optimum combination of the theories?	To identify the practical applications of the theories and their balance.
What was the most effective theory application to achieve successful product development?	Identify the best theory in this context.
For startups in general, could you describe the most effective implementation of the theories?	Give a theoretical basis and the practical application.
What are the negatives when applying the theories?	Identify the drawbacks when applying theory in this context.
How do the theories combat each other?	See the pros and cons of theories when used.
Does limited capital and resources have practical implications when applying theory?	See the impact the theories have on startups with different resource structure.
Market Orientation & Competitor Analysis	
Who are your main competitors?	See their competition
Where do you see yourself in the marketplace?	Own perspective on the company's placement
What was your selection process for the competition?	See competitive analysis strategy
Do you know any competitive analysis strategies?	Understand the knowledge of competitive analysis, from a literature and practical viewpoint
How did you determine what the competitors value was?	To understand how did Survey Legend view the competitors and what they valued

Question	Motivation
What features would you attribute to your success that you took from competitors?	Realise the extent of competitor mimicry
How did your competitor analysis differ between the two companies?	Provide two perspectives on the competitor analysis
What is your USP?	To reveal how the competitor analysis has been used to create a USP
How did you rank the most important features?	Understand the ranking process in feature analysis

Appendix 6: Extended Interview Analysis

Interview 1 - The Company Timeline

The first interview began by the founder, Jasko, detailing the full timeline of Survey Supplier and Survey Legend, from the very inception of the idea up until the current live version. This detailed account of the history of the company provided an overview of when certain events took place, for how long certain activities were undertaken and the degree of inclusion of the various stakeholders of the business.

The company was registered in October 2010 as Survey Supplier. A major relaunch and pivot in the middle of 2013 under the name Survey Legend. Both businesses will be investigated to create a discussion between the uses of theories and principles previously mentioned.

The company was registered in October 2010, initially branded as Survey Supplier, but underwent a major relaunch and pivot in the middle of 2013 to become the current company, Survey Legend. This research investigates both of the businesses, approaching with a critical viewpoint to understand the entire business model in order to gain perspective for the future interviews. The interview starts with the creation of Survey Supplier, progressing through its life and how it transformed into the successful Survey Legend.

We will investigate both of the businesses, as Jasko identifies that Survey Supplier did not apply the lean principles, whereas, Survey Legend implemented the Lean Theories and principles throughout the life cycle, providing two businesses to later form comparisons with. Jasko continued to develop the product until 2012, this was when the new team, consisting of developers and designers team he assembled would use internal iteration to develop the product. With no customer feedback the

product would give no value to the end user. At this rate of development, survey supplier was due to become obsolete in the market place.

Jasko reviewed the marketplace and competitors with his new team and realised they had the same offering as competitors. Jasko decided he needed a valid USP to be relevant to the market. With no clear strategy for iteration that would create an end goal, Jasko took a new perspective where the solution could provide iterative feedback so the solution would become profitable with the increase of features it previously lacked.

In 2013 Survey supplier pivoted to Survey Legend, changing business model and name. By using research of the customers Jasko realised customers wanted a variety of functionality with maximum options, this being a competitive angle Survey Legend leveraged. In June 2013 the team expanded to 5 members which fitted the skill requirement and culture of Survey Legend where they developed their skills to build Survey Legend according to the appropriate iteration cycles. From designing the core of Survey Legend in November 2013, customers were consulted on the usability and features, from a technical and aesthetic perspective. Development time was minimised and a USP was found, to create the smoothest running platform in the market for any user. Once the core features were established and everything ran smoothly, Version 1 was launched with a marketing strategy influenced from previous research.

Using a variety of pricing strategies and partnerships, Survey Legend was able to reach out to multiple user groups, spreading risk and presence in the online market. Jasko continued employment of the lean startup methodology based upon user testing of the platform. Repeat customers who have used other online surveys proved to be the most valuable. The new users would email feedback and form discussions which created a consistent and honest iteration process.

Exponential growth was upon survey legend with positive correlation between the feedback given and the changes made to Survey Legend.

Interview 2 - Two Development Approaches

Meaning and reasons for the different approaches of Survey Supplier and Survey Legend. Survey Supplier was made without considering the wider market place and customers. This was naive and showed a lack of entrepreneurial experience. Transitioning to Survey Legend customers were questioned and the market place was scrutinised to enable a USP to be found and implemented into the solution. Survey Supplier offered little functionality, driving users back to the competitors with no customer retention strategy. Survey Legend was quick to identify a USP of multiple functionality qualities, announcing itself as a competitor once consistently retaining and bringing on new customers.

Survey Suppler used no theoretical principles and used a uninformed approach to creating a solution. However Survey Legend adopted lean principles from the lean startup methodology and lean thinking, as well as an additional external focus. This external focus was outlined to be competitor orientation, comparing substitute products, and then lean startup iteration that involved acting upon user feedback. This interview revealed that external interactions added value to the iteration process, creating a sustainable demand from customers and using the market to guide your offerings. From these findings the aim was to identify a clearer model of Survey Legend's product development process, looking at the market orientation.

Interview 3 - Realisation of a More Suitable Model

In the third interview, Robert joined Jasko to discuss the methodology that created the product offering and validate previous findings while giving his own insights to Survey Legend from a

developer's perspective. Robert identified two distinct stages of the company development; - the first unsuccessful launch focusing on the product, but ignoring the wider market, and the second launch with the product offering based upon the competition followed by the lean startup iteration process. Robert specified that there was no need to conduct more detailed market research as the market was saturated with companies that had already carried out a competitor and customer analysis. Survey Legend now had to refine the customer needs and transfer this into a solution.

Industry technological advancements assisted in the development and success of Survey Legend, progressing from traditional technologies for the service provided to a recently popular technology that customers adhere too and customer demands can be realised faster and more accurately. Robert ensured his developments he gained from competitor analysis met all the competitors' value propositions with the branding of Survey Legend. Beyond this point customers would shape the solution development.

Furthermore, Robert finds that Survey Legend is a valid case study for this research, as the work environment created would help aid the lean development and unplanned nature of Survey Legend, where the course of the product development would constantly change due to meritocracy and an internal drive that was throughout the team to deliver the best product to the customers based on their wants that would succeed their competitors. Not only was customer and market analysis relevant on a more focused scale, critically assessing on an individual level, the market and industry movements as a whole had to be observed. This led to adjustments to utilising relevant technologies, like adapting the technology to Apples latest releases to capture the new market and customers of other products. With these findings, the next interview was designed to explore how Survey Legend identified and analysed competitors.

Interview 4 - Competitor Orientation

In this interview Jasko was questioned how the product offerings of his competitors shaped the development of Survey Legend. Jasko detailed how he used the competitors as benchmarks. By copying the best products with the highest demand, it proved faster than developing a new product which would need to be tested and iterated with customers. Jasko points out that Survey Legend adds a twist to existing functionalities of competitors, making branding the mask over the features he imitates.

The final part of the interview asked about the lean startup methodology, asking where iteration was placed within the process. Jasko made it clear that an MVP should not be described as the minimum needed for a customer to be able to use the product. Instead, Jasko defines an MVP as the minimum standard to be competitive within the industry.

Interview 5 - Competition Analysis

In this final interview Jasko explained the competitor analysis process Survey Legend used to tie connect all of the interviews and summarise the critical findings. The key components of Survey Legend's competition analysis can be found in Appendix 4. Firstly, Jasko analysed the market and how the solution could compete. This was achieved when his developer, Johan, created an in depth competitive analysis of the online survey market, researching the top 50 direct competitors and listing what they offered customers and ranking them accordingly. The features and offerings by the competitors were compared to the pricing mechanisms. From this Jasko would devise his pricing strategy. The MVP of Survey Legend would be to offer all of the free features that the best online survey companies offered. Survey Legend began to use lean principles for product development (maximising efficiency and minimising waste). In summary, Jasko looked to competitors for inspiration, conducting a detailed competitor analysis in order to benchmark his product offering

based upon competitor features. By realising competitor features were not compatible with IPADs, Jasko drove Survey Legend to be one of the strongest on the market on this device as the popularity for this apple product grew, so did Survey Legend.

What Jasko identified was that all of the competition's products had a poor user experience and were difficult to operate. Through intense competitor analysis, and an eye for perfection, Jasko made sure that the interface for Survey Legend was more "beautiful" than the competitors.

Appendix 7: Survey Legend Team Members

Jasko Mahmutovic: Founder & CEO SurveyLegend

Taken from Jasko Linked in page, “I LOVE starting companies that solve problems for various markets and customer-groups. When starting a company I focus on low cash burn, innovation, customer and the customers customer. One thing I like to stress is: I don't create company environments I create FAMILY and TEAM environments.”

Jasko has had an entrepreneurial vision from a young age, now at 30 with a bachelors in Logistik service management he can use his professional attitude he developed from working in a startup environment where he has always worked entrepreneurially.
He has lived in Lund for many years. It was at University in Lund that he first had the idea for survey legend. Jasko is very passionate about creating the best product in the market and delivering the most value to the customers. Throughout the journey creating Survey Legend Jasko has developed many skills; a from an entrepreneurial perspective he has been able to bootstrap and create a strong team that strives for perfection.

LinkedIn profile: https://se.linkedin.com/pub/jasko-mahmutovic/29/354/893

Robert Michalski: Software Developer transitioning from C++ to WebApps and TDD

Robert was a childhood friend of Jasko’s, who graduated from Lund Tekniska Högskola with a bachelors degree in computer science and engineering in 2008. When Robert discovered that Jasko won an award for the best business idea in the venture cup competition in 2011 he joined the team with confidence in helping the product grow into a stable market leader. Robert is a full stack developer (front and back end) with core skills in C++, he is a vital part in the growth of the Survey Legend platform. Robert’s role evolved with the product, starting off as a front end developer to the full time CTO, in charge of the technological choices.

LinkedIn profile: https://se.linkedin.com/pub/robert-michalski/36/324/81

Kiarokh Moattar: Graphic Designer, UI / UX Designer, Illustrator, and Web Designer, Interaction Design and Art Direction.

https://se.linkedin.com/in/kiarokh

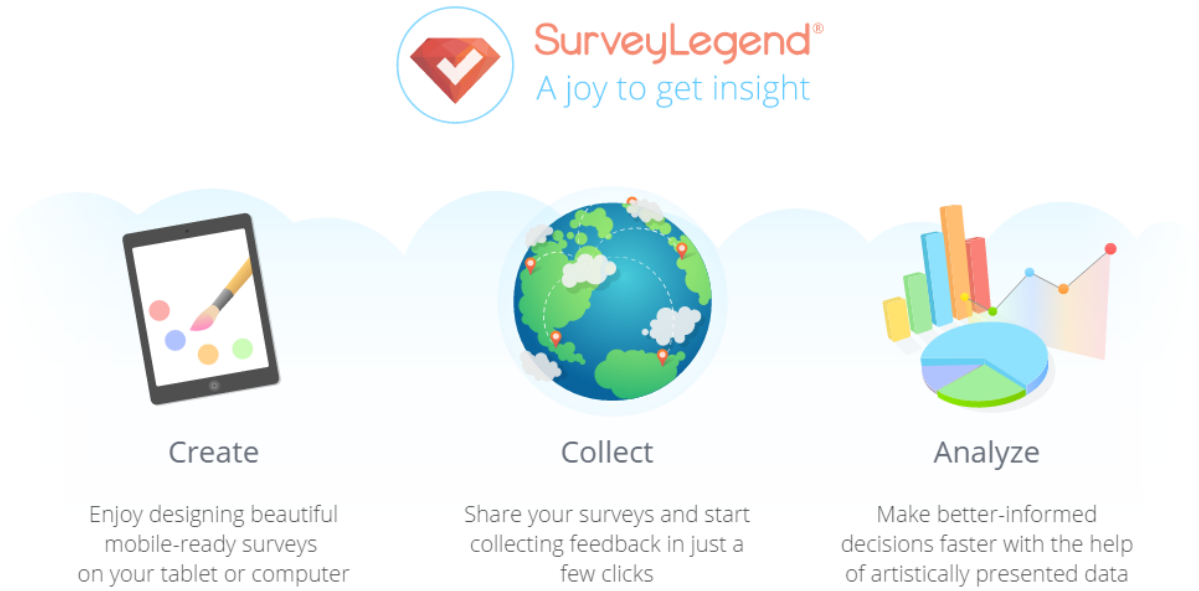
Rick Wahl: Chief Product Officer at SurveyLegend

https://se.linkedin.com/pub/rick-wahl/5/13a/988

Bjarne Bülow: Senior Developer at Survey Legend

https://se.linkedin.com/pub/bjarne-bülow/b/215/53

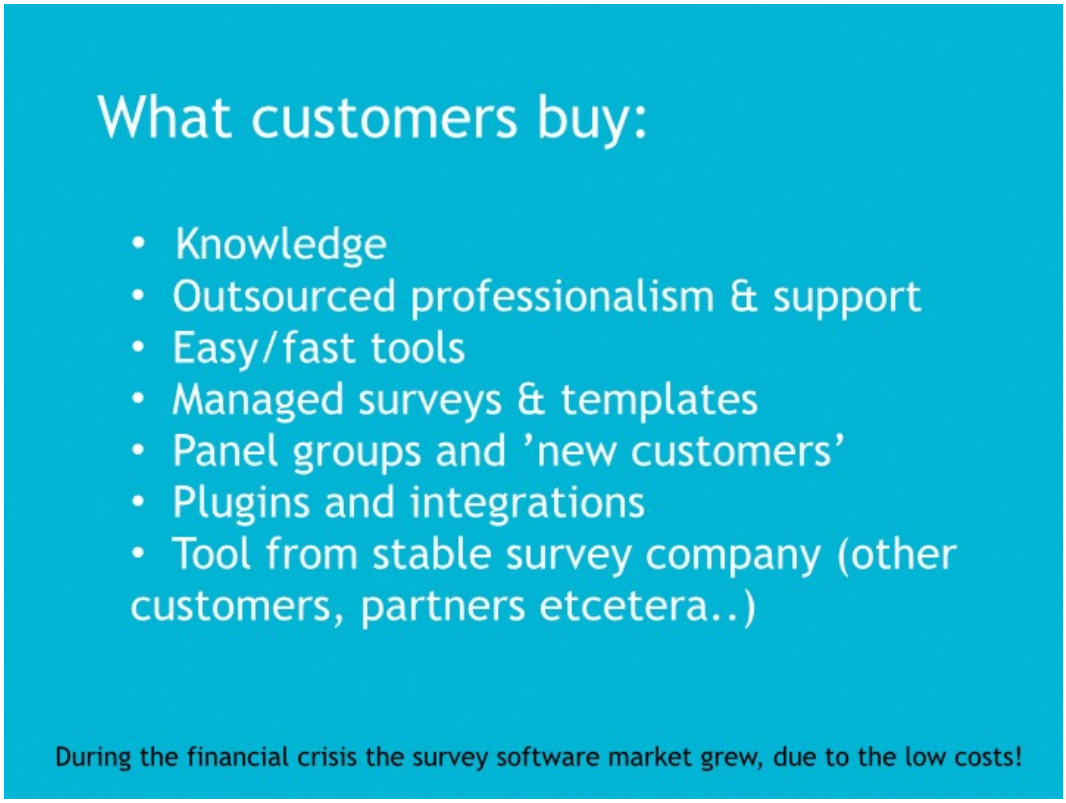
Appendix 8: Survey Legend Product

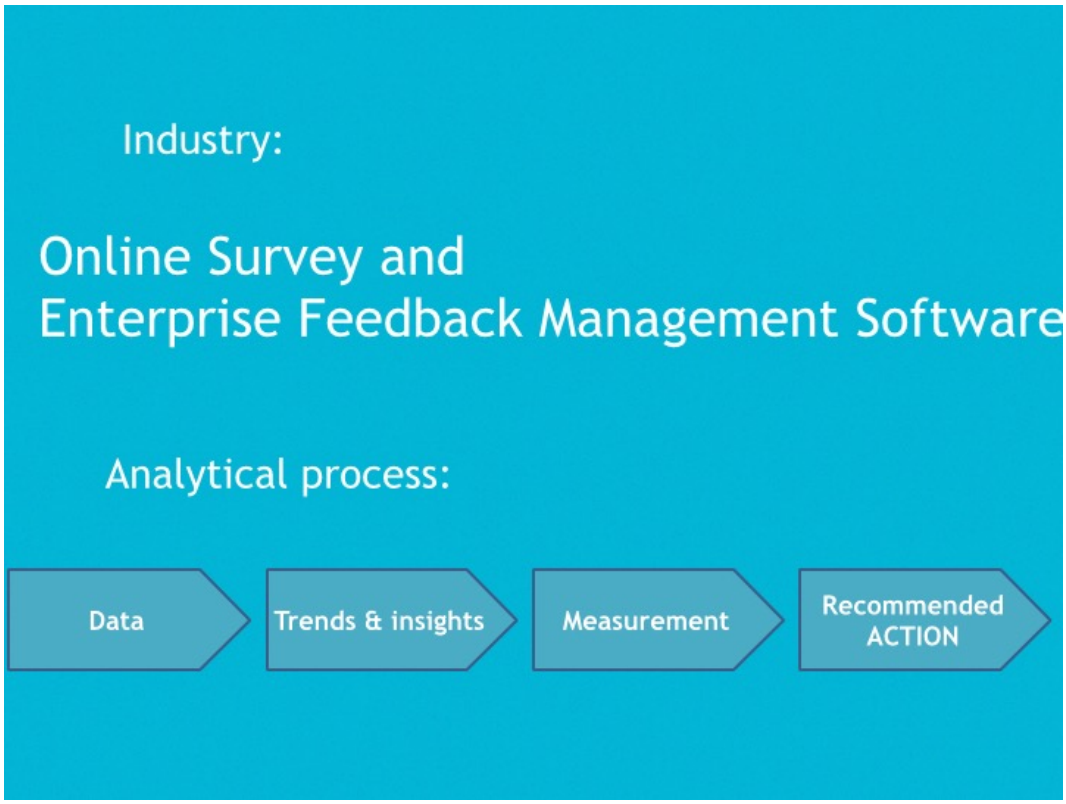


"It should be a joy to give and receive insight." We founded SurveyLegend in 2010, and launched our brand new survey Web app in June, 2014 with the purpose of helping anyone with questions that need answers. We want to give individuals and companies, large and small, the power to create mobile-friendly, gorgeous surveys with ease, and with a smile on their face (yes, you read that right – a smile). In today's mobile world, we made sure to create a web app that's ready for it.
Now you can create great-looking surveys on your computer or tablet wherever you are, customize the look of your survey however you like, and display results with eye-catching and insightful graphics. It's all drag and drop and no prior design or market research skills are needed. If that was not encouraging enough, did we mention that it's free like air? Be a legend as long as you want for FREE. You're just a sign up away from getting your first question answered and making that insightful decision". - *Excerpt taken from www.surveylegend.com.*

"SurveyLegend is an online survey tool that enables individuals of all experience levels to create engaging surveys quickly and with ease. SurveyLegend gives companies and people the feedback they need to make more informed decisions. SurveyLegend's office is located in Lund, Sweden. We offer the next generation of online surveys - engaging and platform independent. We make sure your surveys look astonishing on every device. Drag and drop your way to beautiful, engaging and mobile ready surveys. All this and more with a smile on your face. We at SurveyLegend truly believe that getting insight should be a joy and easy to do, so we set out to accomplish just that. With a unique design and ease of use we created the world's simplest yet most powerful survey solution. SurveyLegend defines the future of the online survey industry with its survey software, one innovation after the other". - *Excerpt taken from Jasko's LinkedIn page.*

Appendix 9: Survey Legend Competitor Analysis Slides





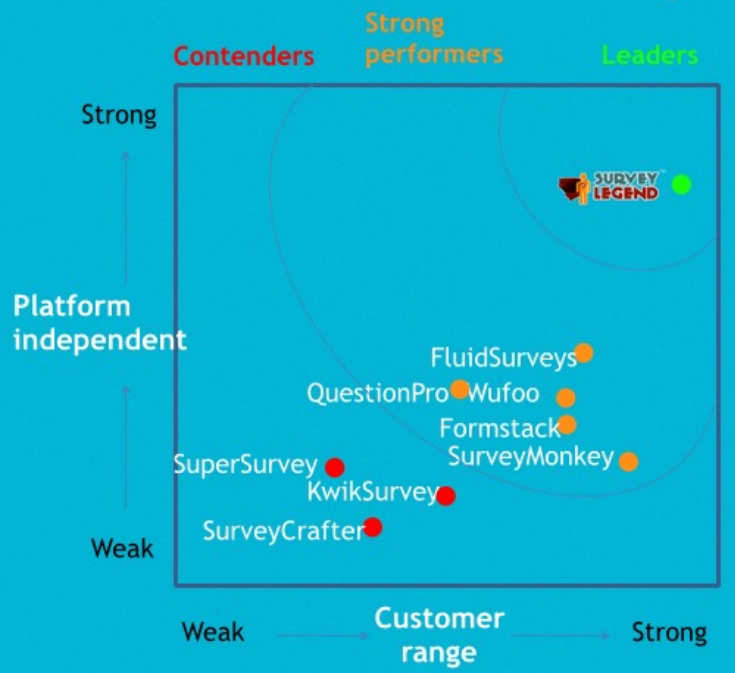
Key index - (top competitors)

Competitor	Brand	Features	Innovation	Customers	Marketing	Social media	Prices	Strategy	Competive advantages	Total
QuestionPro	4	5	3	4	4	4	4	4	4	36
SurveyGizmo	3	3	3	5	3	3	5	4	4	33
Surveytool	3	4	3	4	3	3	4	4	4	32
KwikSurvey	3	3	5	3	3	1	5	5	4	32
PollDaddy	5	4	4	4	4	4	4	4	5	38
Websurveycreator	3	4	4	5	3	2	5	4	3	33
FluidSurveys	4	4	3	5	3	2	4	4	4	33
Wufoo	4	4	5	5	3	5	4	5	4	39
SurveyMonkey	5	4	3	5	5	5	5	4	5	41
Formsite	4	5	3	3	3	3	5	4	4	34
Formassembly	3	4	3	5	3	2	5	5	3	33
Formstack	3	3	2	4	3	4	4	5	4	32
Gravityforms	4	4	4	4	4	3	3	4	4	34
Jotform	3	3	4	4	3	5	5	4	3	34
SurveyBuilder	4	3	3	4	3	3	5	4	4	33
Dotsurvey	3	3	5	4	3	4	5	4	3	34
Mobosurvey	3	3	4	4	4	3	5	4	3	33

(1 = bad, 5 = great

Our top competitors have low prices with different subscription, and targets all customer groups

Wave illustration of market positioning



SWOT

	Positive	Potentially negative
Internal	• Innovative company • Low costs • Market knowledge • Access to partnerships • Unique tool and interface • Flexible • Interest in the company is big	• No market research experience • Small market share • Low budget • Long development time • Low convertion rate to paying customers
	Strengts	Weaknesses
	Opportunities	Threats
External	• Growing industry • Obsolete competitors • Good competititor analysis • Few established online survey brands • Fast ROI • Many potential customers	• Similar tools are developed • No patents •Big competitors

What everyone is offering:

- Advanced features
- Advances logic and question piping
- Templates
- White label and own design
- Media questions
- SSL encryption & spam prevention
- Multilingual surveys,
- etcetera.....

Is there really a market for all these features or are they a must have?