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Lean Startup methodology: An exploratory study of the principles applied by South African e-retailers

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ABSTRACT

In 2011 Eric Ries wrote a book called “The Lean Startup” in which he documented inexorable logical and lean concepts applicable to start-up businesses. The Lean Startup principles are not yet widely understood and very little research has been conducted on this topic. This qualitative study explores which principles of the Lean Startup methodology young South African e-retail businesses apply during the start-up phase of the business.

By applying a qualitative research strategy, six South African e-retail businesses from different sectors were interviewed. The results from the interviews were compared to the Lean Startup approach and it was concluded that South African e-retail businesses applied nearly all the principles of the Lean Startup methodology and philosophy in the start-up phase of their businesses in the following ways: preferred experimentation to elaborate business plans and forecasts; made use of validated learning in order to test the vision of their start-ups; applied the Minimum Viable Product concept to test their vision; applied Actionable metrics during the measure phase of the build-measure-learn feedback loop; did not apply Innovation Accounting convincingly during the measure phase of the build-measure-learn feedback loop; pivoted or persevered in some way or form during the start-up phase of their business; applied all three of the engines of growth as defined by the Lean Startup.

KEYWORDS

Strategic entrepreneurship
Entrepreneurial management
Continuous innovation
Pivoting
Lean Startup
Validated learning
Build-Measure-Learn feedback
Actionable metrics
Innovation Accounting
Minimum viable product (MVP)
Engines of growth
E-retail

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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1.1. Background and motivation for the study

About 30 years ago, Howard H. Stevenson, the godfather of entrepreneurship studies at Harvard Business School, defined entrepreneurship as "the pursuit of opportunity beyond resources controlled" (Stevenson, 1983, p. 23). According to Eisenmann (2013), Stevenson's definition of entrepreneurship still matters for two reasons. Firstly, it sees entrepreneurship as a distinctive approach to managing rather than a specific stage in an organisation's life cycle, a specific role of an individual, or a grouping of personality attributes. In this view, entrepreneurial behaviour can be found in all kinds of organisations, regardless of size, age or profit-orientation (Kraus, Fink, Rößel, & Jensen, 2007). Secondly, the definition provides a guidepost for entrepreneurial action; it points to tactics entrepreneurs can take to manage risk and mobilise resources.

Stevenson's conceptualisation of entrepreneurship places it within a broader management framework. He notes: "Entrepreneurship is more than just starting new businesses… *entrepreneurial management* may be seen as a 'mode of management' different from traditional management" (Stevenson & Jarillo, 1990, p 25). He contrasts entrepreneurial behaviour with administrative behaviour where the entrepreneur's sole intent is pursuing and exploiting opportunities regardless of resources controlled, while the administrator strives to make the most efficient use of its resources pool (as "required" by fiduciary responsibility).

Pursuing and exploiting opportunities is strategic in nature. As Casson (2003) points out, entrepreneurial decisions are by definition ''judgemental'' in the sense that the choices made in the current period are based on an individual's belief or interpretation of what the future is to hold; such beliefs and conjectures about the future, however, are based primarily on the information and knowledge initially at hand. Given the reality that the environment is dynamic in both the real and symbolic sense, there is the very real possibility that entrepreneur's belief will ultimately be wrong. This idea is entirely consistent with the strategic perspectives since it

suggests that strategic choices are made in the current period in anticipation of future environmental conditions.

The ‘‘successful’’ exploitation of a given opportunity depends not only on environmental conditions, but also on the chosen entrepreneurial strategy (Plummer, Haynie, & Godesiabois, 2007). In fact, under-exploitation might well result from a strategy-opportunity mismatch independent of any changes in the environment. Thus, even if the environment favours a given opportunity, the entrepreneur's ability to formulate and execute a successful exploitation strategy is paramount.

Entrepreneurial strategising involves a determination of the optimal set of actions, decisions, and commitments to be made to maximise the returns from the exploitation of the opportunity (Meyer, Neck & Meeks, 2002). It is at this point that the entrepreneur seeks to ‘‘match’’ the opportunity at hand with the ‘‘best’’ strategy for maximising the opportunity's value given some projection of future environmental conditions. Small and medium sized enterprises (SMEs) have always been skilful in identifying entrepreneurial opportunities, but less effective in developing and sustaining competitive advantages for exploiting them. It is mostly the other way around with established enterprises (Ireland, Hitt, & Sirmon, 2003).

The integration of entrepreneurial (opportunity-seeking) and strategic (advantage seeking) perspectives seems to be a promising approach for contemporary management, and is probably even a necessary approach for coping with the effects of the new competitive and uncertain landscape (Kraus & Kauranen, 2009). Both perspectives can be regarded as essential for value creation, although neither is sufficient on its own (McGrath & MacMillan, 2000; Ireland, Hitt, Camp & Sexton, 2001). Strategic management must therefore become more entrepreneurial, and shift from the traditional administrative approach to a *strategic entrepreneurship* approach. This would characterise a new management philosophy that promotes strategic agility, flexibility, creativity, and continuous innovation. It can also be used in transforming administrative-oriented employees into intrapreneurs. A concrete managerial implication of the strategic entrepreneurship approach is the possibility to develop more entrepreneurial and innovative thinking, especially in young SMEs. This stands in contrast with the traditional strategic management approach, which characteristically emphasises administrative management and focuses on day-to-day

business. Intuition and utilising “gut feelings” are important elements of the entrepreneur’s strategy development, although they have to be supplemented by wise use of strategic management instruments. It is also generally acknowledged that proper planning has its positive implications for successful implementation. Accordingly, planning complements and enhances entrepreneurial behaviour or, as Liao and Gartner (2008, p18) put it: “Planners are doers!”.

Entrepreneurs, Drucker (1986) argues, need a systematic approach for putting all the pieces of the puzzle together. Business planning helps entrepreneurs work smarter, stay alert for roadblocks, test new ideas, stay motivated, help align expectations with stakeholders and investors, and even reduce stress. Since SMEs considerably differ from large enterprises in their amount of resources, it is doubtful that “standard” strategic management instruments work in the same manner in SMEs as in large enterprises.

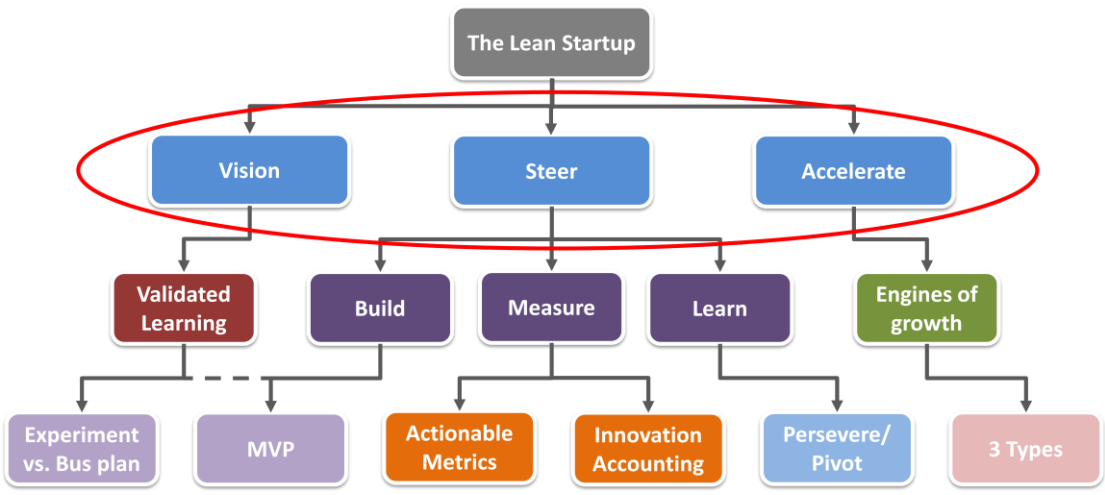
The new competitive and uncertain landscape not only makes entrepreneurial planning and strategising more and more important (Meyer et al., 2002), but also requires a different approach. Ries (2011) believes that Stevenson’s entrepreneurial management concept is the new management toolkit that is designed specifically for the kinds of crazy uncertainty that we face every day. The tools of entrepreneurial management are different than traditional management but there is still discipline and a process to follow. For example, Ries (2011) argues that the most important concept in the toolbox of entrepreneurial management is *“*the pivot”. A pivot is a change in strategy without a change in vision. The reason why it is such an important part of entrepreneurial management, is that everything done in a start-up has to be geared to learning that it is time to pivot a little bit sooner. He argues that the difference between success and failure is that successful entrepreneurs had the discipline necessary to pivot when it was not working; to change the strategy without abandoning the whole vision.

Using the entrepreneurial management concept as starting point, Eric Ries, a Silicon Valley entrepreneur, pioneered the Lean Startup movement. In 2011 he wrote a book called “The Lean Startup: How today’s entrepreneurs use continuous innovation to create radically successful business” in which he documented inexorable logical and lean concepts applicable to start-up businesses. Ries (2013, p1) describes the Lean

Startup methodology as “a scientific approach to creating and managing start-ups and get a desired product to customers’ hands faster.” It teaches entrepreneurs “how to drive a start-up – how to steer, when to turn, and when to persevere – and grow a business with maximum acceleration. It is a principled approach to new product development.”

Ries (2011) explains that the Lean Startup method focuses on three major start-up phases and introduces several concepts as illustrated in Figure 1.1. The first phase consists of developing a vision for the start-up. By applying a concept called ’validated learning’, the entrepreneur knows what product to produce as he understands what customers want and what they are willing to pay. The entrepreneur learns through experimentation which is proven to be more tangible, accurate, and quicker than traditional business plan forecasts. The second phase in the start-up process involves steering the start-up by making use of the ‘Build-Measure-Learn’ feedback loop. In the third phase, techniques are employed that enable start-ups to accelerate through the Build-Measure-Learn feedback loop. In order to assist the entrepreneur to focus on the correct metrics Ries (2011) developed the concept of ’engines of growth’. The engine of growth is the fundamental economic driver that is available to the start-up based on its business model and customer characteristics. It is the mechanism that start-ups use to achieve sustainable growth.

Figure 1.1: The Lean Startup method and concepts



Source: Created from Ries (2011)

The lack of a tailored management process has led many a start-up or, as Ries (2013, p1) terms them, "a human institution designed to create a new product or service under conditions of extreme uncertainty", to abandon all processes. They take a "just do it" approach that avoids all forms of management. But this is not, according to Ries (2011) the only option. Using the Lean Startup approach, “companies can create order not chaos by providing tools to test a vision continuously. Lean isn't simply about spending less money. Lean isn't just about failing fast, failing cheap. It is about putting a process, a methodology around the development of a product” (Ries, 2013, p1).

The Lean Startup principles are not yet widely understood and organisations are just beginning to grasp its implications (Blank, 2013). Today’s entrepreneurs should manage their businesses differently and should therefore consider applying the principles of the Lean Startup methodology and philosophy for their own benefit, as well as for the benefit of their wider communities.

1.2. The research problem

The South African socio-economic environment is characterised by low economic growth, high insolvency rates, high inflation and high levels of unemployment. The economic growth measured in gross domestic product (GDP) for the 2nd quarter 2013 was a mere 3 per cent (Statistics South Africa, 2013). The headline inflation rate in August 2013 (that is the Consumer Price Index for all urban areas in August 2013 compared with that at August 2012) was 6,4 per cent (Statistics South Africa, 2013). The unemployment rate in South Africa increased to 25.60 per cent in the second quarter of 2013 from 25.20 per cent in the first quarter of 2013 (Statistics South Africa, 2013).

South African small, medium and micro-sized enterprises (SMMEs) play a significant role in the economy. According to the Minister of Finance, Pravin Gordhan (2011), about 70 per cent of private employment is in firms with fewer than 50 workers. Smaller firms in South Africa also account for a disproportionate share of gross job creation with almost 80 per cent of all new jobs being created in firms with fewer than 50 workers (Finweek, 2012). South Africa’s estimated 2.8 million SMMEs, according

to Thabethe (2013), contribute between 52 and 57 per cent of GDP.

Turton and Herrington (2012) in the Global Entrepreneurship Monitor (GEM) Report 2012 state that a strong relationship exists between national economic growth and the level of entrepreneurial activity. The extend of the entrepreneurial contribution small businesses can make to a national economy is also evident from the finding that small businesses are roughly 13 times more innovative per employee than large firms (Baumol, 2004).

Even though small businesses are very important for the economy of a country, tens of thousands of small businesses fail every year. Figures from Statistics South Africa (2013) indicate that during 2012 alone, a total of 2 716 small businesses in South Africa went insolvent.

According to Mazzarol, Reboud and Soutar (2009, p338) the key to success for most new ventures is the owner's ability to think and act in a strategic way, specifically they found that "too many entrepreneurs suffer from strategic myopia, a condition characterised by a short sighted focus on the daily operational matters that the ownership of a small business demands". Research has indicated that the probability of actually starting a new venture is six times higher among entrepreneurs who have written a business plan than among entrepreneurs who have not written a business plan (Heriot & Campbell, 2004). Furthermore, the existence of a business plan has been positively associated with the success of the enterprise, for example, in an Austrian study of 458 young SMEs by Kraus and Schwarz (2007) and in a study of 312 nascent entrepreneurs from the USA by Liao and Gartner (2008). Similarly, a study by Schulte (2008) of 585 business plans from Germany also regarded pre-start-up planning as an important requirement for success.

Even though the business plan can be regarded as one of the most important strategic management instruments in new and young SMEs, the actual process of decision making that can be observed in reality often deviates substantially from the management's ideal picture of rationality – planning in SMEs seems to be rather unstructured, sporadic, and incremental, due to, for example, limited resources, limited time, or the entrepreneur's attitude towards formal planning (Kraus, 2007). As a consequence, the majority of SMEs still do not have a written business plan (for

example, only 29.5 per cent of the 468 young SMEs in the study by Kraus and Schwarz (2007) had a business plan).

According to Kraus and Kauranen (2009) strategic management of an enterprise before and during the phase of its foundation (the pre-start-up planning stage) is a topic of increasing interest. This includes research on the role of the business plan in the planning process. The question of whether the formality of the business plan or the strategic management in general is beneficial for the success of young SMEs also demands further research. Kraus and Kauranen (2009) suggest both quantitative and qualitative research studies, including case research, to explore this issue further. Unlike the positivist assumption associated with quantitative research, qualitative research assumes "the world, or reality, is not a fixed, single or measurable phenomenon" (Merriam, 2002, p3). Qualitative research attempts to interpret this reality at a particular point and in a particular context.

For the purpose of economic growth in general, and the success of South African SMMEs in particular, the following question is posed: Will SMMEs in South Africa benefit from implementing the principles of the Lean Startup methodology in the pre-start-up planning stage of their businesses? The question could be further refined to focus on the SMMEs in the e-retail sector.

E-retailing is one of the components of the internet economy – the other components are internet access and presence, online advertising, investment in data infrastructure and government spending on infrastructure. The internet economy as a proportion of South Africa's GDP was 2 per cent (R59 billion) in 2011 (Goldstuck, 2012). Moreover, Goldstuck (2012) adds, this contribution is rising by around 0.1 percent a year, and will reach R79 billion by 2016, contributing up to 2.5 percent to South Africa's GDP. The contribution of the different internet components to the South African internet economy in 2011 is presented in Table 1.1.

Table 1.1: Contribution of Internet components to the South African Internet economy in 2011

Internet Sector	In billions of Rand	% of Internet economy
E-retailing	11.5	19%
Internet access and presence	29.2	50%
Online advertising	1.5	3%
Investment in data infrastructure	15.5	26%
Gov spending on broadband infrastructure	1.28	2%
Total	**58.98**	**100%**

Source: Goldstuck (2012)

It is important to note that e-retailing in the context of the South African internet economy only includes business-to-consumer (B2C) e-commerce. This is in line with equivalent studies where business-to-business (B2B) e-commerce is not included. B2B is excluded as they are not the end user and will be selling the goods on, therefore leading to double counting if included. This is in line with the generally accepted definition of what constitutes the internet economy, namely consumption, investment and exports (Goldstuck, 2012).

As illustrated in Table 1.1 e-retailing made up 19 per cent of the internet economy in South Africa in 2011. Additional statistics with regards to e-retailing in South Africa are as follows (Sletcher, 2011):

- South African e-retailing demographics:
    - 25 per cent of online shoppers are under 25
    - 52 per cent of online shoppers are between 25 and 45
    - 48 per cent of sales is in Gauteng, 20 per cent in KwaZulu Natal and 12 per cent in Western Province
    - Gender of online shoppers are:
        - 37 per cent Female
        - 63 percent Male
- Only 17 per cent of South African online population shopped online in 2010
- 80 per cent of the e-retailing sector is contributed by the airline industry which

has fully embraced e-ticketing.

Although the e-retail sector is not the biggest most important sector in the South African economy, it is the fastest growing sector. A study by World Wide Worx showed that the e-retail sector in South Africa grew by 30 per cent from 2010 to 2011, while the physical retail sector only grew by 7 per cent during the same period (Goldstuck, 2011). The growth of e-retail is therefore four times faster than physical retail.

Since the Lean Startup methodology and philosophy was initially developed for technology businesses in the United States of America and e-retailers in South Africa are the fastest growing sector in the economy who most likely knowingly or unknowingly apply this methodology and philosophy, this study seeks to primarily answer the question: Which principles of the Lean Startup methodology do young South African e-retail businesses apply during the start-up phase of the business?

1.3. Research objectives and scope

Although the theory behind the Lean Startup methodology is relatively well described, knowledge of the 'what' of the methodology (the execution) is still nascent. A review of potentially entrepreneurial and strategic activity in the start-up of South African e-retail businesses will provide the opportunity to consider the Lean Startup methodology as a tool in strategic entrepreneurship and entrepreneurial management in practice, and identify elements fundamental to these concepts. The contributions of this study would be relevant to strategic entrepreneurship and entrepreneurial management literature and South African entrepreneurship advocates in policy and practice, as well as the growing Lean Startup movement .

Hence, while the Lean Startup methodology has been developed to a degree, the emphasis remains theoretical, with little practical support or guidance. Thus a gap remains for the development of a more lucid and perhaps pragmatic model of the Lean Startup. How can start-ups, for example, effectively exploit entrepreneurial opportunities in practice? For those young South African e-retail businesses which have undertaken the Lean Startup methodology and philosophy in their start-up

planning phase, this study primarily explores: how was it achieved and what did it involve (the primary aim of research).

Following from the primary aim of this research, seven research objectives are posed:

- The first objective is to ascertain whether South African e-retail start-ups favours experimentation over elaborate business plans and forecasts
- The second objective is to ascertain whether South African e-retail start-ups make use of validated learning in order to test the vision of the start-up
- The third objective is to ascertain whether South African e-retail start-ups apply the Minimum Viable Product (MVP) concept to test their vision and to initiate the build phase of the feedback loop
- The fourth objective is to ascertain whether South African e-retail start-ups apply actionable metrics during the measure phase of the feedback loop
- The fifth objective is to ascertain whether South African e-retail start-ups apply Innovation Accounting during the measure phase of the feedback loop
- The sixth objective is to ascertain whether South African e-retail start-ups learn from the measure phase of the feedback loop and either pivot or persevere
- The seventh objective is to ascertain whether South African e-retail start-ups applied one or more of the three engines of growth as defined by the Lean Startup methodology

This exploratory study (research to gain familiarity with a phenomenon (Kothari, 2009)) is qualitative in nature. In order to achieve the research objectives, the existing body of knowledge on the concepts related to the Lean Startup methodology and philosophy are explored and described in a synthesised literature review (Chapter 2). Appropriate research propositions defining the scope of the research are formulated. An appropriate qualitative research methodology for effective judging of the formulated research propositions is designed (Chapter 3). Data is collected using qualitative research instruments to describe the approaches e-retail businesses in South Africa used in applying the Lean Startup principles (Chapter 4). The research findings are presented and interpreted (Chapter 5 and 6). Recommendations for entrepreneurs on applying the Lean Startup principles from the critical analysis of data gathered, as well as recommendations for future research, are developed and

presented (Chapter 7).

1.4. Chapter summary

This chapter explained the context of the research and the reasons why the topic warrants further research. The problem the research is addressing, as well as the objectives of the research was presented. The next chapter is a literature review of the topic to refine the research problem and question and to further explain the rationale for the research.

Chapter 2: Literature review

2.1. Introduction

This chapter starts by defining a young start-up business in the context of this research by utilising relevant literature. It then continues by critically reviewing the scientific theories in respect of the Lean Startup methodologies and principles. An in-depth study is conducted with regards to literature associated with this topic. As previously stated, the Lean Startup book was an attempt by Eric Ries to document inexorable logical concepts applicable to start-up businesses. Therefore, literature associated with each of the documented concepts will be systematically reviewed and discussed.

2.2. Defining a young e-retail business in the start-up phase

To research the e-retail business sector as a whole is a mammoth task. The definition of different business stages, such as the start-up stage, varies according to industry, geographical location and researcher. In an effort to select a specific business stage of e-retail businesses to research, two models were used to examine business stages. These models assisted to focus on specific business stages without the uncertainty associated with age and size when classifying business stages:

1. The five stages of small business growth as defined by Churchill and Lewis (1983)
2. The entrepreneurial pipeline as documented by the Global Entrepreneurship Monitor (Turton & Herrington, 2013)

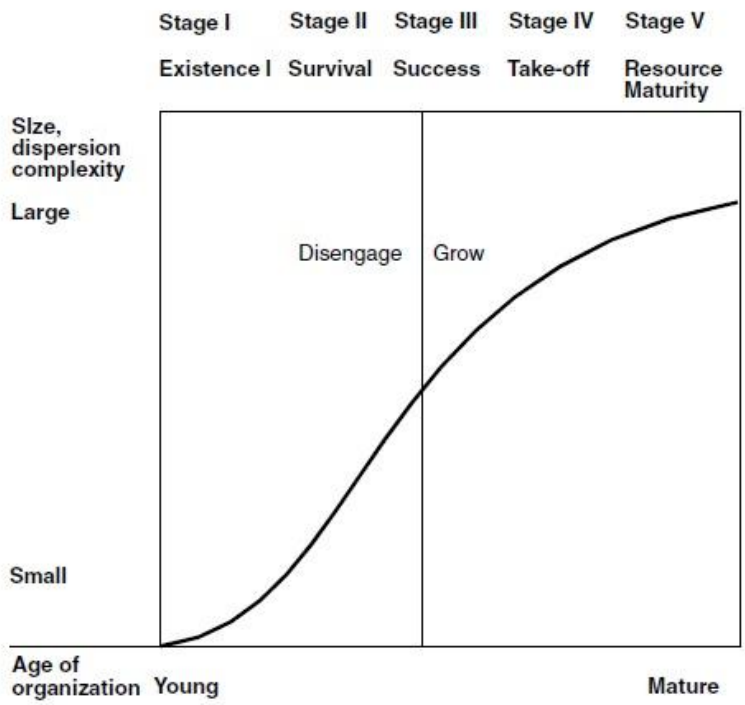
Figure 2.1 illustrates Churchill and Lewis's (1983) five stages of small business growth model, which categorises the problems and growth patterns of small business systematically as follows:

1. Existence – The owner is the business and performs all important tasks. Main objective is to obtain customers and delivering these customers with the required product or service.
2. Survival – Business concept is proven and customers are satisfied with product or services delivered. Main objective is to increase profitability by

focussing on income and expenses.

3. Success – Business has sufficient size and product-market penetration to ensure economic success, and earns average or above-average profits. Owner might be disengaging and business might require functional management.
4. Take-off – Business decisions on what to grow rapidly and how to finance the growth are required. Organisation is decentralised and in part divisionalised with operational and strategic management in place.
5. Resource maturity – Business has the advantages of economies of scale, financial resources and managerial talent. Systems are extensive and well developed.

Figure 2.1: Five stages of the small business growth model



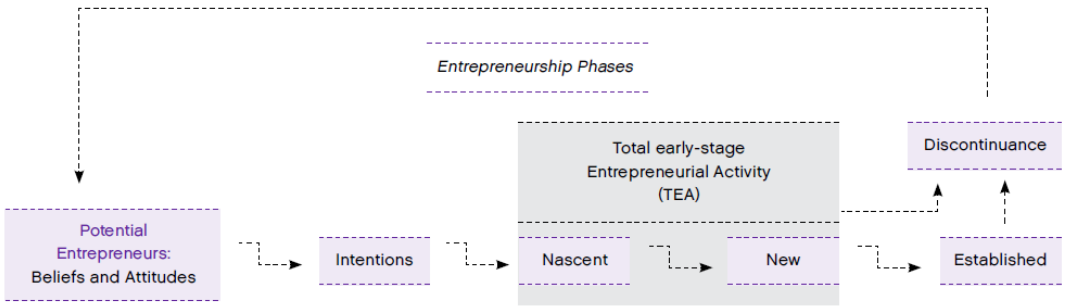
Source: Churchill and Lewis (1983, p3)

According to the Global Entrepreneurship Monitor model (Turton & Herrington, 2013), entrepreneurial activity is best seen as a process rather than an event. They define an entrepreneurial pipeline consisting of the following four stages and

graphically illustrate them as in Figure 2.2:

1. Potential entrepreneurship – Those individuals who perceive good business opportunities and believe that they have entrepreneurial capabilities.
2. Entrepreneurial intentions – Those individuals who have intentions to pursue a business opportunity within the next three years.
3. Early-stage activity – This stage consist of nascent entrepreneurs and new business owners.
    - *Nascent entrepreneurs* refer to individuals actively involved in setting up a business they will own or co-own. This business has not paid salaries, wages or any other payments to the owners for more than three months.
    - *New business owners* refer to an owner-manager of a new business, in other words owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than three months, but not more than 42 months.
4. Established business ownership – Those individuals who are currently owner-manager of an established business, in other words owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

Figure 2.2: The entrepreneurial pipeline



Source: Turton and Herrington (2013, p23)

From the above models, a young start-up business for the purposes of this research is defined as a business in the existence and survival phases of the small business growth model. Secondly, it refers to businesses of nascent entrepreneurs and new business owners performing early-stage entrepreneurial activities as per the Global Entrepreneurship Monitor model.

2.3. The origin of the Lean Startup methodology and philosophy and its concepts

The Lean Startup methodology and philosophy is a culmination of many other developments in the field of business and management and introduces some new processes and concepts. For example, Ries (2011) introduced a new approach of entrepreneurial management called validated learning. Ries suggests that by applying experimentation the entrepreneur learns what customers want and what they are willing to pay, ultimately leading to a successful sustainable business.

Next the Lean Startup introduces the Build-Measure-Learn feedback loop which refers to the process of turning ideas into products, measure how customers respond to the products and then learn from their feedback. A technique that enables start-ups to accelerate through the Build-Measure-Learn feedback loop was also introduced by the Lean Startup. By focussing on the correct "engines of growth", the start-up eliminates potential wastage that could have occurred from applying the incorrect success metrics.

Many of the Lean Startup concepts find their origins from the Toyota Production System (TPS) which became very popular during the eighties when it supplanted the traditional big batch mass production model. The TPS introduced the following "lean" principles (Liker & Morgan, 2006):

- "Genchi Genbutsu" directly translated to English means go and see for yourself. This principle focuses on the customer and is related to the validated learning concept of the Lean Startup.
- "Kaizen" and "Hansei" directly translated to English means continuous reflection and improvement. When children in Japan do something wrong and is asked to "hansei", it is expected that they ask to reflect, apologise and vow to never do it again. These principles are related to the Build-Measure-Learn concept of the Lean Startup which requires start-ups to continuously measure (reflect), learn and improve the initial product or service.
- "Muda" directly translated to English means waste or futility. This key principle of TPS is related to the Engines of Growth of the Lean Startup which gives start-ups a relatively small set of metrics to focus their energies and not waste time on measuring incorrect things.

2.4. The concepts of the Lean Startup methodology and philosophy and related theories

In this section the seven core concepts of the Lean Startup methodology and philosophy will be discussed, as well as their related theories**.** The seven core concepts are: Validated learning, Build-Measure-Learn feedback loop, Minimum Viable Product (MVP), Actionable metrics, Innovation Accounting, Persevering or pivoting, and Engines of growth.

2.4.1. Validated learning

The Lean Startup claims that detailed plans with long-term strategies are not necessarily an indicator of success for start-ups as these plans are based on "assumptions that have not been proved to be true and in fact are often erroneous" (Ries, 2011, p81). According to Ries (2011), start-ups operate under too much uncertainty, initially not knowing what or who their product or customer would be. The Validated learning concept uses empirical data from real customers as input to establish if the vision of the start-up is aligned with what customers want. This data has proven to be more tangible, accurate, and quicker than traditional business plan forecasts. The data can be collected through scientific experiments. In the Lean Startup, experiments are not, for example, theoretical research questionnaires; it is real first products. As a result, the Lean Startup operates under the principle of lean planning and more management of the chaos associated with the start-up process.

To most business consultants, educators and lending or financing establishments, the business plan is the ultimate in pre-start-up preparations. A study by Bewayo (2010) however found that only fifty percent of the 355 business owners interviewed, claimed to have prepared business plan for their start-ups. Business owners were more inclined to write business plans if they were targeting external financing. The study found three major reasons for not writing business plans (Bewayo, 2010), namely:

- There is no need to write business plans – Most interviewees indicated this

reason by far and it was related to the fact that they were not in search for external financing and could not see more reason than that for writing a business plan.

- Business plans inconvenience the start-up entrepreneur – Experience and intuitive decision makers requires less objective information.
- Business plans require both knowledge and skill to write.

E-retail businesses are very dependent on technology and management of these businesses are required to follow technology trends (Ashworth, 2012). A recent trend in software development is the agile approach which suggests light iterative changes to the code base. Williams (2012) documented the history of agile software development as follows: During the 90's software projects applied the waterfall development methodology that required heavy business requirements and design documents. Project managers and developers believed that if they followed the documentation the project would be a success. In reality, this approach rarely worked and rebel consultants were saving projects using iterative, lightweight methodologies. In the early 2000's, 17 creators and supporters of lightweight software development methodologies met to create and sign the agile software development manifesto. The manifesto (Manifesto for Agile Software Development, 2001) states that:

> "We are uncovering better ways of developing software by doing it and helping others does it. Through this work we have come to value:
>
> - **Individuals and interactions** over processes and tools
> - **Working software** over comprehensive documentation
> - **Customer collaboration** over contract negotiation
> - **Responding to change** over following a plan
>
> That is, while there is value in the items on the right (not bold), we value the items on the left more (bold)."

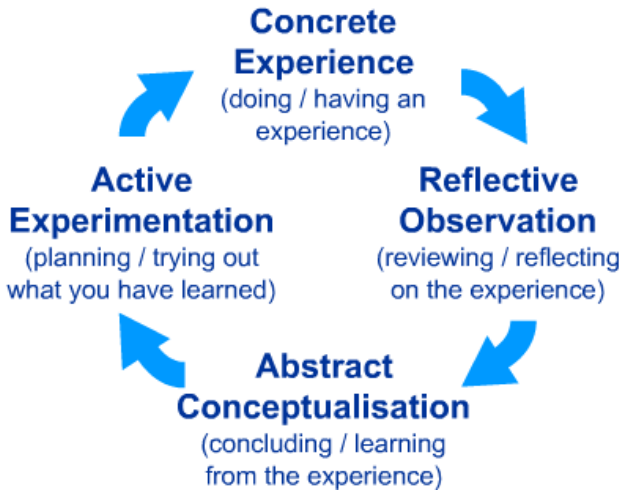
Similarly, the Lean Startup requires businesses to make small iterative changes to their business while consistently checking if the product is what the customer wants.

2.4.2. Build-Measure-Learn feedback loop

Ries (2011) created the Build-Measure-Learn feedback loop as an essential process in any start-up. The quicker the start-up can accelerate from *turning* ideas into products, *measure* how customers respond to the products and then *learn* from the feedback, the less initial start-up capital is required and the quicker potential disastrous projects are abandoned. The Build-Measure-Learn feedback loop is an iterative experimentation process, and its main purpose is to apply feedback from customers to the product during every iteration.

Traversing the start-up steps is required for a successful e-retail business as it allows the business to absorb and use new knowledge progressively (Phelps, Adams, & Bessant, 2007). It places experiences in perspective and allows for intervention and correction. Kolb (1984) developed the much acclaimed Experiential Learning Theory (ELT) using his own and many other academic's research. At the time the theory was developed from a student learning and information processing point of view. The concepts from the theory can however easily be applied to the start-up process of a new business venture. As indicated in Figure 2.3, Kolb (1984) defines learning as a four stage cycle which starts with immediate or concrete experience. This provides the basis for observations and reflections. These observations and reflections are assimilated and distilled into abstract concepts producing new implications for action which can be actively tested in turn creating new experiences (Kolb, 1984). It is an iterative process where the learner has to go through each stage experiencing, reflecting, thinking and acting.

Figure 2.3: Four stage learning cycle



Source: Kolb (1984, p21)

The Six Sigma method is another theory that relates to the Lean Startup's Build-Measure-Learn feedback concept. Six Sigma, is a set of process improvement principles designed by Motorola in the 1980's. It became very popular during the 1990's when Jack Welsh implemented it at General Electric. Six Sigma is defined as an organised and systematic method for strategic process improvement and new product and service development that relies on statistical methods and the scientific method to make dramatic reductions in customer defined defect rates (Linderman, Schroeder, Zaheer, & Choo, 2003). Six Sigma applies a structured approach to managing improvement activities, which is represented by Define–Measure–Analyze–Improve–Control (DMAIC) used in process improvement or Define–Measure–Analyze–Design–Verify (DMADV) used in product and/or service design improvement (Linderman et al., 2003). The DMADV approached relates to the Build-Measure-Learn feedback concept in the Lean Startup specifically as it is used in new product design.

2.4.3. Minimum Viable Product

The 'Minimum Viable Product' (MVP) refers to the "build" portion of the Build-Measure-Learn feedback loop and attempts to prevent start-up entrepreneurs from spending too much money and time on developing a product that they think is perfect

but the market potentially do not want or need. The Lean Startup encourages start-ups to test their MVP with the market as soon as possible by moving through the Build-Measure-Learn feedback loop as quickly as possible. The MVP can also be used as the original prototype to test the vision. The feedback received is both quantitative (how many customers use the MVP and find it useful) and qualitative (what customers like or do not like about the MVP). Examples of MVPs include the following:

- Explainer video – The entrepreneur creates a short video that explains what the product does and why people should buy it. For example, Dropbox.
- Online marketplaces – Entrepreneur first test the market demand through a online marketplace. For example, BidOrBuy.
- Landing Page – The purpose of a landing page is to quickly communicate the value of the entrepreneur's offering and call the visitor to action.
- Wizard of Oz – Entrepreneur puts up a front that looks like a real working product, but manually carries out product functions. For example, Zappos.
- Concierge – Instead of providing a product, the entrepreneur provides a service that simulates the exact steps people would go through with the product. For example, Food on the Table.
- Crowd funding campaigns – The entrepreneur raises funds from customers before building the product. For example, Kickstarter.

A "lean" launch can be defined as a launch strategy in which the firm makes small commitments of resources, ramps up manufacturing slowly, and keeps the amount of inventory during rollout low (Calantone, Di Benedetto, & Stank, 2005). Calantone and Di Benedetto (2011) found that the timing associated with a "lean" launch of a new product and not necessarily being first, significantly improve product performance.

Timing refers to the alignment of many involved parties and can include competition, customers, distribution channel, and business unit goals. It also includes components of the launch are coordinated like service policies, training and trade promotions. As a result, the optimum launch time, given all of these considerations, may not be the earliest possible time. Lean launch, however, would allow the firm to launch sooner if circumstances required it (Calantone & Di Benedetto, 2011).

MVPs are also often associated with first-mover advantages. In the physical market

environment symbolic events like the gold rush and land grabs contributed to entrepreneurs getting a first-mover advantage. With the rise of the internet market environment, these assumptions were just carried over and assumed to be still applicable. A study by Varadarajan, Yadav and Shankar (2008) found that first-mover advantage for start-ups in the Internet enabled market environment is not guaranteed. They recommend first-movers build strong relationships with customers and invest in sticky features that will create non-contractual switching cost. Examples of sticky features can include personalisation tools and network externalities.

2.4.4. Actionable metrics

Once the MVP is created, the entrepreneur must measure its success. The Lean Startup cautions the use of vanity metrics and requires the entrepreneur to use metrics that are actionable, accessible and auditable. These metrics can include but is not limited to the following:

- Cohort Analysis groups the customers and then measures per cohort as oppose to cumulative or gross metrics. This measurement method explains the business quantitatively and has more predictive power.
- Split or A/B testing is an experimental process where different versions of a product are offered to customers at the same time. By observing sales from the different product versions, the start-up can determine which product version will be more successful.
- By formulating an assumption and performing hypothesis testing on it.

Vanity metrics in contrast with Actionable metrics refers to statistics where there is no cause and effect. A bull market on the stock exchange ensuring all brokers increasing revenue is a good example of vanity statistics.

According to Nielson (2005), compared with other actionable metrics, A/B testing has four main benefits:

1. It measures the actual behaviour of customers under real life conditions. The researcher can confidently conclude that if one version of a product sells more than the other version of the product, then the first version is the product they should sell to all customers in the future.

2. It can measure very small performance differences with high statistical accuracy because the researcher can do as many tests as they want and still get a mathematical proven response. A one percent better response indicates a bias towards that product or design.
3. It can assist in proving intuitive outcomes right or wrong, by determining which one carries the most weight under the circumstances. For example, if an e-retailer asks customers to enter a discount coupon upon checking out, the users without coupons might stop the transaction as they feel they are paying more than other customers. At the same time, coupons are a good marketing tool and are used successfully by many e-retail businesses. When e-retail sites tried A/B testing with and without coupon entry fields, overall sales typically increased by 20-50 per cent when customers were not prompted for a coupon. Thus, the general rule is to avoid coupon fields. Another site might however be the exception to the rule, where coupons as a marketing tool help more than they hurt. As a result, the e-retailer can easily determine what works better for their store by doing A/B testing.
4. It is inexpensive as it only requires a piece of random selection software code to serve each new user with a different version of the product. There is no need for expensive usability specialists to monitor each user's behaviour or analyse complicated interaction design questions. The e-retailer collects data until they feel they have enough data, and then select the product or design with the most positive responses.

2.4.5. Innovation Accounting

As management consultant Peter Drucker once said: “If you can’t measure it, you can’t manage it” (as cited in Peterson, McAlister, Winer, Kumare & Atkinson, 2009, p95). The Lean Startup methodology challenges businesses to measure productivity and profitability differently and not through traditional tangible measurements such as, return on investment (ROI). Rather, the entrepreneurs’ leap of faith assumptions is measured and their learning translated into measurable items. This approach, is referred to as Innovation Accounting and uses, among others, the following non-traditional financial ratios (Marinescu, 2013):

- Customer retention rate = ((CE-CN)/CS)) x 100

Where:

CE is the number of customers at end of period

CN is the number of new customers acquired during period

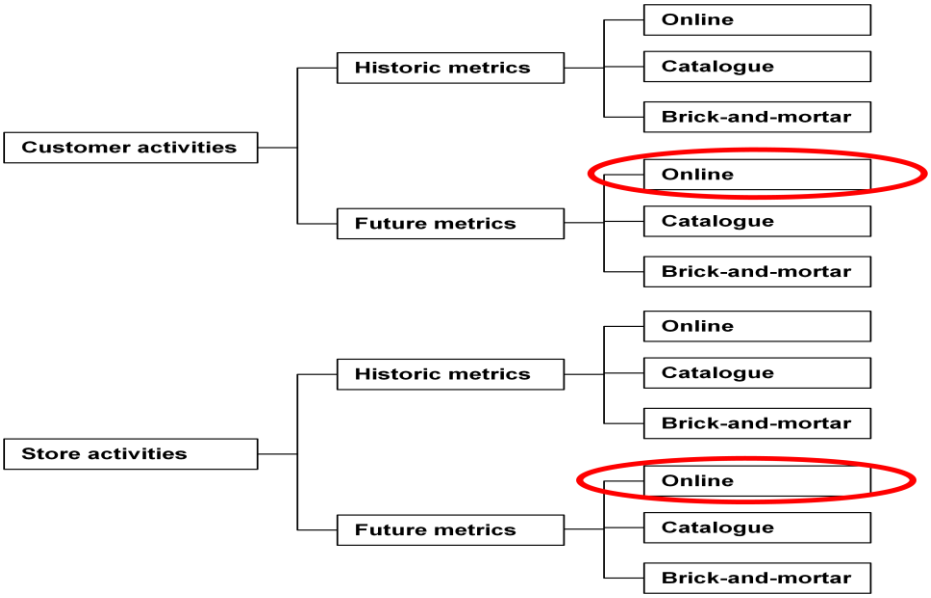
CS is the number of customers at start of period

- Customer attrition rate = 100 per cent - Customer retention rate
- Customer acquisition cost (CAC) = Number of new customers signup for / Cost of setting up and marketing product or service
- Customer Life time Value (CLV) = (Average Value of a Sale) x (Number of Repeat Transactions) x (Average Retention Time in Months or Years for a Typical Customer)
- Viral Coefficient (VC) = First new customer / New customer as a result of first new customer. In other words how many new customers will there be as a result of a new customer.
- Net Promoter Score (NPS) = How likely is a customer to recommend the product or service to a friend or colleague? (usually asked on a 0-10 point scale where ten represents "most likely" and zero represents "least likely"). Divide all responses into three buckets, namely promoters, detractors, and others. Promoters are anyone who chose 9 or 10 on the "likely to recommend scale" and detractors are those who chose any number from 0-6. Next, calculate the percentage of respondents that fall into the promoter and detractor buckets. Finally, subtract the detractor percentage from the promoter percentage. The result is the score. Thus, NPS = Promoter % - Detractor %.

By combining the research findings from many academics, Peterson et al. (2009) created a model for identifying the right metrics to maximise profitability and shareholder value. The model requires the business to develop metrics into 12 “cells”. At the highest level activities are organised between customer and store level activities for the current and future time period. Customer refers to activities specifically related to interactions with the customer like sales revenue from a customer. Store activities refer to in-store activities like total store revenue. The customer and store activities are subsequently organised into backward-looking and forward-looking metrics. Backward-looking metrics assist managers to measure the effectiveness of historic initiatives and uses past behavioural information and transactional data like sales revenue. Forward-looking metrics also uses past

behavioural information and transactional data, but predict future customer behaviour. At the lowest level each of the cells must be measured against the online, catalogue and brick-and-mortar sales channels. The 12 cells of the model are visually explained in Figure 2.4.

Figure 2.4: The 12 Cell metric model



Source: Peterson et al. (2009, p103)

The Lean Startup's Innovation Accounting metrics specifically hones in on certain metrics as highlighted in Figure 2.4, namely:

- The customer future online cell refers to metrics, such as CAC and CLV.
- The store future online cell refers to items like word-of-mouth and brand equity. It is measured through metrics , such as VC and NPS.

The Lean Startup's Innovation Accounting can also be compared to the Six Sigma's quantitative metrics for continuous improvement. Linderman et al. (2003) suggest that using explicit, challenging goals in Six Sigma projects can increase the magnitude of improvements, reduce performance variability of the projects and increase employees' improvement efforts and commitment to quality. Some of the Six Sigma quantitative metrics includes critical-to-quality metrics, defect measures, and 10 improvement measures as well as traditional quality measures like process capability.

2.4.6. Persevering or pivoting as a result of learning

The outcomes from the "measure" step will "learn" the entrepreneur if significant progress has been made in order to "persevere" or "pivot". Pivot does not just mean change, but it refers to a fundamental change in either the product, business model and/or the engine of growth. Persevere requires the entrepreneur to continue and give the concept more time.

Zwilling (2011) summarises the top 10 pivots to consider for a start-up as follows:

1. Zoom-in pivot – Single feature of product becomes the whole product
2. Zoom-out pivot – Whole product becomes a single feature of a larger product
3. Customer segment pivot – Product solves a problem but not for the intended audience
4. Customer need pivot – While getting to know customers well, a bigger problem to solve is found
5. Platform pivot – Changing the vehicle how products are delivered or interaction with customer occur
6. Business architecture pivot – Change from High margin, Low volume to Low margin, High volume
7. Channel pivot – Changing the sales or distribution channels for the product
8. Value capture pivot - Monetization or changing the revenue model
9. Engine of growth pivot – Changing the levers that grows the business
10. Technology pivot – Changing the technology in an effort to grow the business as the new technology is for example more compatible or accessible for a wider audience

2.4.7. Engines of growth

The Lean Startup method (Ries, 2011) suggests that in order to accelerate startups through the Build-Measure-Learn feedback loop they need to focus and measure three engines of growth, namely:

- Sticky growth engine – The main objective of this engine of growth is to improve customer retention. In other words, long term customers with a very

low attrition rate. It goes against the standard intuition that if a business lacks growth it should invest more in sales and marketing. The “freemium” model is often used here to acquire customers for free and then convert them into paying customers

- Viral growth engine – Your product advertises itself and your customers will do your marketing. The business depends on existing customers to attract new customers. This is a different mindset to a physical retailer setting up as many shops as they can fund in order to grow. Facebook and Tupperware are examples of viral engines of growth as their customers do most of their marketing for them
- Paid engine of growth – Buying your customers through sponsored search and other online advertising methodologies. In order for the business to be successful the CLV of customers is greater than the CAC

The engines of growth only include items that will contribute to sustained growth and excludes onetime initiatives like a marketing campaign that could lead to a once off surge of new customers. Ries (2011) also recommends start-ups hone in on one engine at a time to prevent confusion and create focus.

A business that improves its market orientation will improve its market performance (Narver & Slater, 1990). Two definitions of market orientation are mostly used:

- Market orientation is the organisation wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments and organisation wide responsiveness to it (Kohli & Jaworski, 1990)
- Navar and Slater (1990) also define market orientation as being composed of three components: customer orientation, competitor orientation and inter-functional co-ordination.

The definitions have parallels in the sense that both are concerned with customers, organisational management and intelligence. The sticky engine of growth is based on the market orientation theory as it assists companies to create a competitive advantage through a customer-focused culture, in which customer values are created (Hou, 2008).

The viral engine of growth finds its origins in the viral marketing concept. The concept viral marketing was coined by Steve Jurvetson and Tim Draper in 1997 to describe the free e-mail service Hotmail (Jurvetson, 2000). By applying this concept Hotmail build their customer base to more than 10 million users in only 7 months. The analogy of a virus was used to describe the multiplication dispersal of information on the internet. Similarly to a virus, viral messages is spread exponentially from consumer to consumer performing the marketing activities on behalf of the company. Wilson (2012) describes the principles associated with viral marketing as follows:

- Gives away products or services – Most viral campaigns give away valuable products and services for free to attract attention
- Provides for effortless transfer to others – Marketing messages must be easy to transfer and replicate: email, website, graphic, software download
- Scales easily from small to very large – The marketer must ensure they can handle the load associated with viral as once a product goes viral the business need to scale quickly and effectively
- Exploits common motivations and behaviours – It needs to address the desire to be cool, popular, loved and understood
- Utilises existing communication networks – Employ human networks like family, friends and colleagues
- Takes advantage of others' resources – Viral campaigns can be costly and as a result the marketer is recommended to utilise other's existing resources like networks and technologies

Viral marketing is predominantly based on word-of-mouth communication, which is widely accepted as the most important and influential marketing concept (Swanepoel, Lye, & Rugimbana, 2009). Traditional face-to-face word-of-mouth was presented as a relatively objective concept. Research found however that electronic word-of-mouth is more subjective implying that businesses are intervening to stimulate and control word-of-mouth through incentives for referring potential customers (Porter & Golan, 2006).

Paying for customers in the online world consists mainly of pay-per-view (PPV) and pay-per-click (PPC) revenue models (Lin, Ke, & Whinston, 2012). The PPV model was first and was adopted from traditional advertising such as television and

newspaper. As a result this model will display and charge advertisers, even though highly ad-averse users are unlikely to respond to advertisements. Regardless of advertisement effectiveness, the PPV model charges advertisers according to the level of exposure. This exposure is measured through cost-per-mille (CPM) and refers to the cost the advertiser pay per thousand showings (impressions) of the advertisement (mille in Latin means ‘a thousand’). Advertisers typically pay flat fees to show their advertisements a fixed number of times (1,000 "impressions") and contracts are negotiated on a case-by-case basis (Edelman, Ostrovsky, & Schwarz, 2007).

Unlike PPV, PPC revenue models are performance-based and are measured in cost-per-click (CPC). CPC take into account user advertisement aversion and charge advertisers on the basis of user actions. PPC advertisement revenues surpassed the PPV revenues in 2006 already and remain increasingly dominant (Lin, Ke, & Whinston, 2012). Ghose and Yang (2008) describe PPC as the process where advertisers who wish to market their product or services on the Internet submit their keyword and bid price per keyword to a search engine. The search engine then pit advertisers against each other in auction-style bidding process, allocating the highest advertisement position on the search result page to the highest bidder. Most search engines also consider the previous click-through rate before assigning the final rank in their auction algorithm. When a consumer subsequently searches for that keyword on a search engine, the advertisers’ web page appears as a sponsored link next to the organic search results that would otherwise be returned. The advertiser only pays the assigned price for the users who click on their listing to visit their website. As listings only appear when a keyword is searched for, an advertiser can reach a more targeted audience on a much lower budget.

CPM differs from PPC in the sense that the advertiser pays for the number of times their advertisement is displayed to users. With PPC the advertiser pays for the amount of times the advertisement is clicked. The key metrics associated with PPV and PPC are (Wilson & Pettijohn, 2010):

- Conversion Rate (CR) - CR is the ratio of people who actually complete a transaction to the number of people who visit the advertiser’s webpage, expressed as a percentage.
- Cost Per Sale (CPS) – Also called the Acquisition Cost or Cost per Action.

CPS metric tells the advertiser the actual monetary cost of advertising for each sale of a product or service.

2.5. Chapter conclusion

In this chapter, two theoretical models were used to define a young start-up business for the purpose of this research. The definition was followed by a critical review of the scientific theories in respect of the Lean Startup methodologies and principles. It was clear that many of the methodologies and philosophies incorporated in the Lean Startup are from existing theory. Concepts related to the Lean Startup discussed in this chapter, include:
Toyota Production System; Validated learning; Agile Software development methodology; Experimental learning theory; Six Sigma; Lean launch concepts; First-mover advantages; Metrics to maximise profitability and shareholder value; Market orientation; Viral marketing and word-of-mouth; and Pay for customers revenue models.

In the following chapter the research question and propositions are discussed.

Chapter 3: Research Question and Propositions

3.1 Introduction

In this chapter the purpose of the research is defined, while the research question is also presented. The research propositions follows which, according to Cooper and Schindler (2001), is statements of concepts that may be judged as true or false. The researcher decided to use research propositions rather than hypothesis as the propositions will not be used in this exploratory study for empirical testing.

3.2 Purpose of the research

The purpose of the research is to determine if and how young e-retail businesses in South Africa made use of the principles of the Lean Startup methodology and philosophy in their start-up phase.

3.3 Research Question

The main question this research is aiming to answer is: Which principles of The Lean Startup methodology is applied by young South African e-retailers during the start-up phase of the business?

3.4 Research Propositions

The following methodologies and philosophies from the literature review section drive the core research question and form the structure of the research:

- Toyota Production System
- Validated learning
- Agile Software development methodology
- Experimental learning theory
- Six Sigma
- Lean launch concepts
- First-mover advantages

- Metrics to maximise profitability and shareholder value
- Market orientation
- Viral marketing and word-of-mouth
- Pay for customers revenue models

Three main and seven sub-propositions were developed from the methodologies and philosophies above. The propositions define the scope of the research and the assertions that will be debated. Figure 3.1 graphically illustrates where the propositions are derived from Eric Ries' Lean Startup approach. The research propositions are as follows:

Proposition 1 is related to Validated Learning and testing of the Vision of the start-up

Proposition 1A: South African e-retail start-ups favour experimentation over elaborate business plans and forecasts

Proposition 1B: South African e-retail start-ups make use of validated learning in order to test the vision of the start-up

Proposition 2 is related to the Build-Measure-Learn feedback loop

Proposition 2A: South African e-retail start-ups apply the Minimum Viable Product (MVP) concept to test their vision and to initiate the build phase of the Build-Measure-Learn feedback loop

Proposition 2B: South African e-retail start-ups apply actionable metrics during the measure phase of the Build-Measure-Learn feedback loop

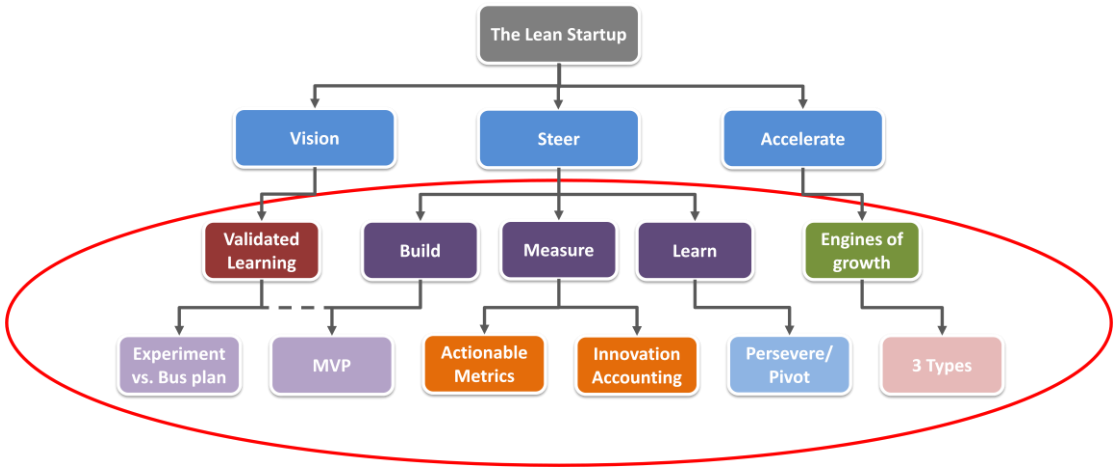
Proposition 2C: South African e-retail start-ups apply Innovation Accounting during the measure phase of the Build-Measure-Learn feedback loop

Proposition 2D: South African e-retail start-ups learn from the measure phase of the feedback loop and either pivot or persevere

Proposition 3 is related to the Engines of Growth

Proposition 3A: South African e-retail start-ups apply one or more of the three engines of growth as defined by the Lean Startup methodology

Figure 3.1: The origin of the research propositions in the Lean Startup model



Source: Created from Ries (2011)

3.5 Detailed interview guideline

The detailed interview guideline designed for the qualitative research appears in Appendix 2. The document was designed to give a short summary and introduction to the Lean Startup approach by Eric Ries. Once the interviewee understands the Lean Startup concepts, the listed detail questions were used to drive the conversation during the interview. The questions were designed to gather the maximum information from the start-up phase of the business.

3.6 Chapter summary

In this chapter the purpose the research was defined and the research question formulated. Three main and seven sub-propositions were presented, representing the issues the researcher seeks to explore.

Chapter 4: Research Methodology and Design

4.1 Introduction

This chapter explains the research methodology that is used in this study, the research design, population, the sampling method, the research instrument, the research process, the data collection method, the process of data analysis, and the method that is used to present the findings. The chapter also explains the ethical considerations and major limitations of the study.

4.2 Research methodology and rational

The research method is qualitative in nature as it attempts to explore if South African e-retailers applied the Lean Startup principles during the initial phases of their businesses. Qualitative research is used to explore if there is any prior knowledge available on a subject (Denzin & Lincoln, 2003).

Unlike quantitative research where the researcher needs to convince the reader that the correct procedures have been followed, qualitative research aims to convince the reader that the study makes sense (Merriam, 1998).

4.3 Research Design

A grounded theory research strategy was followed in this study. Grounded theory, according to Saunders and Lewis (2012, p119), is a research strategy that contributes to theory from “data generated by a series of observations or interviews principally involving an inductive approach”. This research strategy required the researcher to first develop a detailed understanding of the phenomenon of interest. By applying inductive reasoning, the researcher obtained this understanding from the literature review which included a review of the principles defined in the Lean Startup. The grounded theory strategy requires that information is collected from participants and documented to reflect the perspectives of participants. The researcher conducted interviews to collect information and code this information into

categories. The result of this process was a logical compelling analysis that identified and described key constructs which could contribute to existing theory.

4.4 Population and sampling

Since the population related to this research is very large and it would be impossible to get a complete list of the population (all the South African e-retailers), a non-probability purposive quota sampling technique was used. According to Saunders and Lewis (2012), quota samples are used as a substitute for a probability sample to select participants when a sampling frame is not available.

The researcher acknowledges that principles defined in the Lean Startup are biased towards technology start-ups and as a result, the sample universe selected for this research only consisted of e-retail companies in South Africa. E-retailing is a sub-industry within e-commerce and refers to the sale of goods and services between online retailers and end-user retail customers (Kotler & Keller, 2012). Online retailers provide convenient, informative and personalised experiences for a variety of consumers.

The researcher did not have to filter e-retail companies according to their size or turnover for this study as all existing companies had to be a start-up at some point. In an effort to interview young companies where the start-up experience was still in memory, only companies started after 2005 were interviewed.

To ensure the selection of high quality companies for the research, companies recognised with a South African e-commerce award for demonstrating excellence in using the Internet as a platform for ecommerce were approached for interviews. These awards are awarded annually and are judged by the public and uAfrica.com. In order to qualify, the participating companies must have facilitated the buying or selling of products via the Internet, including ordering, electronic payment and delivery. The annual winners are listed on the following website: www.ecommerceawards.co.za.

Out of the 15 e-retailers approached for this study, six were winners or runner-ups of

South African e-commerce awards. Unfortunately nine of the 15 e-retailers declined after several attempts by the researcher for an interview. The main reasons for declining to participate, were as follows:

- Two invitees declined stating trade secrets associated with e-retail are easy to copy or replicate and they were therefore unwilling to participate
- Another two invitees declined stating that they were too busy for an interview. They were founder-owners who were entrenched in daily operations due to lean staff compliments

The researcher made use of non-probability purposive sampling by only selecting e-retailers that were established post 2005 and/or e-retailers that participated in the South African e-commerce awards. Non-probability purposive sampling means the researcher uses his judgement to select e-retailers that will be best suited to answer questions and meet the research objectives (Saunders & Lewis, 2012). The final sample consisted of six companies in the following industries: Apparel, Mass retail, Discount deals, Umbrella company, Group buying and Kitchenware.

4.5 Data collection and management

Data was collected through a qualitative interview process, specifically semi-structured interviews. The particular interview technique was used because of the novelty of the Lean Startup concept. Since the concept was only documented in 2011, it was not widely known and it was therefore necessary to explain the principles of the Lean Startup prior to starting the interviews.

4.5.1. Data collection instrument

According to Eriksson and Kovalainen (2008), semi-structured interviews allow interviewees to express their opinions and experiences in person. This type of interview allowed the researcher to guide the discussion in a manner that helped the researcher to probe further and obtain a comprehensive understanding. The use of discussion guide containing open-ended questions allowed the interviewees to respond spontaneously. Owing to the newness of the Lean Startup concept, the researcher was however sometimes forced to use closed-ended questions by giving

examples or a list of possible answers as part of the explanation. Appendix 2 lists the questions which were used to interview South African e-retail start-up entrepreneurs.

Initially it was anticipated that data will be collected by visiting the interviewees at their business premises. The researcher unfortunately had an unexpected back operation (L5 S1 discectomy) resulting in a change in the data collection method by conducting the interviews via Skype. The Skype interviews were recorded and subsequently transcribed. The transcriptions were checked against the recording for accuracy and completeness.

4.5.2. Interview guidelines

Prior to the interview an interview guidelines document (refer to Appendix 2) were sent to participants. The document was designed to give a short summary and introduction to the Lean Startup book by Eric Ries. The reasoning behind this was that once the interviewee understands the Lean Startup methodology and principles, the interview could take place more productively and effectively. The guiding questions were also listed on this document. Since the research is exploratory in nature, the interview guidelines are consistent with this semi-structured interview methodology.

The first series of questions on the list were designed to validate if the start-up's vision was tested and confirmed with customers prior to starting up. It also tested if a formalised business plan was used.

The second series of questions enquired whether the entrepreneur made use of the "Build-Measure-Learn" feedback loop during the initial phases of the start-up. It confirms or denies the use of MVPs during the build phase of the feedback loop. It then inquired about the use of actionable and Innovation Accounting metrics during the measure phase of the feedback loop. It also inquired about whether they persevered or pivoted during this phase as a result of learning in the feedback loop.

The third and last series of questions were designed to explore whether the start-up fell into one or more of the three defined engines of growth.

4.6 Data analysis

Data analysis in qualitative research is simultaneous with data collection (Merriam, 2002). This means that the researcher starts analysing the data from the first interview, observation or even when the first document is accessed. As a result the qualitative data analysis process is highly intuitive and it is not always possible to locate the source of the insight.

Given the primary objective of this research, namely to explore whether a selection of young South African e-retailers applied Lean Startup concepts during their business start-up phase, narrative analysis was used. This method allowed the interviewees to relate their experiences during the start-up phases of their businesses. For the researcher this meant a wider understanding of issues, such as entrepreneurial characteristics and the South African socio-economic environment.

The interviews were recorded and transcribed. Each transcript was firstly considered in isolation and compared to the methodologies and principles documented in the Lean Startup. The researcher's observations were noted throughout this process. Subsequently the researcher's observations per case were compared and contrasted to each other in order to gain a deep insight. Finally, the integrated findings from the observations were used to judge the research propositions as true or false.

4.7 Presentation of findings

The findings from the research are presented in a multiple-case study format. This format enables the researcher to explore differences within and between the e-retailers (the cases or units of analysis). Understanding of the theory is gained from the review of the case studies. Eventually the findings from each case will be compared and reported on in an integrative summary.

4.8 Trustworthiness

In qualitative research, trustworthiness is a critical concept because it allows researchers to describe the observed reality outside of the parameters that are

typically applied in quantitative research. Guba (1981) was one of the first researchers to address trustworthiness issues related to qualitative research with methods of rigour including credibility, dependability, transferability and conformability. Curtin and Fossey (2007) expanded on Guba's constructs by adding considerations that should be taken into account when determining whether the method, findings and interpretation of a qualitative research were constructed in a trustworthy manner: evidence of thick description, triangulation strategies, member-checking, collaboration between the researcher and the researched and reflexivity. In order to accomplish the above, the researcher of this study took notes, applied member checking and employed triangulation techniques during the interviews. A cordial rapport with respondents was built by the researcher prior to every interview in order to gain trust but also create an environment conducive to stimulating engagement.

4.9 Ethical considerations

The Research Ethics Committee of GIBS ("REC") approved the research for ethical clearance in order to preserve and respect the rights, freedom and well-being of all people who are involved or who could be impacted by the research.

Participation in this research was on a voluntary basis. All the e-retailers approached agreed to participate in the research. Appendix 1 indicates the informed consent letter that was used to approach the selected South African e-retailers to participate in the research.

Informed consent was obtained from all interviewees. Many interviewees raised concerns regarding the commercial sensitivity of information shared during the interview. Interviewees concerns were put to rest by the researcher confirming that the confidentiality of each company will be maintained as the names of the companies and interviewees would not be used in the research report. As a sign of good faith and in order to build confidence, the researcher also promised each interviewee a copy of the final research report.

4.10 Chapter summary

The chapter outlined the research approach and design utilised in this study. This included the description of the population, the sample and sampling. The instrument used, as well as the process of data collection was explained. The chosen method of analysis was clarified and the limitations of the study explained. Finally, considerations were given for ensuring ethical conduct.

Chapter 5: Presentation of findings

5.1 Introduction

In this chapter the findings of the study are provided. First, the companies and the interviewees are described. Thereafter, interviewees' previous knowledge of the Lean Startup methodology is indicated. This is followed by multiple case study, consisting of six cases, results reflecting the understanding of the Lean Startup concepts and an explanation of the company practices that corresponds with the Lean Startup methodology and philosophy. The chapter concludes with a presentation of the integrated results of the researched companies.

5.2 Profile of participating companies

By only selecting e-retailers that were founded post 2005 and/or e-retailers that participated in the South African e-commerce awards, the researcher selected and interviewed six South African e-retail businesses from the various industries in the e-retail sector. The interviewed companies are classified and summarised in Table 5.1 below.

Table 5.1: Profile of companies interviewed

Case	Industry	Year founded	No of staff	Place	Niche or mass	SA e-com awards	Phy-sical Store
A	Men apparel	2012	3	Pta	Niche	Did not take part	No
B	Mass retail	2006	30	Jhb	Mass	Did not take part	No
C	Discount deals	2009	9	Cpt	Niche and Mass	2012	No
D	Umbrella company	2012	150	Cpt	Niche	2013	WIP
E	Group buying	2010	15	Cpt	Niche and Mass	2012	No
F	Kitchenware	2006	60	Cpt	Niche	Multiple years	No, but can collect orders in Cpt

The profile categories can be explained as follows:

5.2.1. Cases

Owing to the commercial sensitivity and trade secrets shared during the interviews, the names of interviewees and the companies they represented are kept anonymous. The companies (cases) listed in the table (Table 5.1) were randomly coded and ranked. From this point forward the interviewed companies will only be referred to as ‘cases’.

5.2.2. Industry

The researcher selected a variety of cases to represent different industries in the South African e-retail sector. The industries of the cases are described below:

- Apparel – The apparel industry consist of clothing and any other item that is worn. Mass apparel would cater for any gender and almost any item that can

be worn. Niche apparel will focus for example a specific gender.

- Mass retail – These companies sells almost anything online and caters for a broad range of customers with a very large product range. In the physical market environment this could be compared to a Makro in South Africa.
- Discount deals – Each day these companies provide subscribers or browsers with a new product or service at a discounted price for that one day only. They secure these products at a discounted price from suppliers that has too many or old stock. The products range from electronics to household goods. They differ from group buying as they do not require a minimum number of buyers to activate the deal.
- Umbrella company – These companies owns and manages multiple online stores under one umbrella company. The stores can range from apparel to home décor. Each online store has its own name and brand but is also clearly linked to the umbrella company.
- Group buying – Each day these companies provide subscribers or browsers with a new product or service at a discounted price. If enough people subscribe to that day's item, the deal activates. The deals range from restaurants, theatres and spas to stores, health fads and special events.
- Kitchenware – The kitchenware industry sells kitchen products that includes but is not limited to cookware, bake ware, appliances, knives, utensils, pots, pans and many kitchen accessories.

5.2.3. Year founded

The "year founded" refers to the year in which the case started operating.

5.2.4. Number of staff

The "number of staff" represents the number of employees at the date of the interview. It includes everyone involved with the day-to-day operations of the case.

5.2.5. Place

The “place” refers to the location of the business.

5.2.6. Niche or mass

A distinction was made between specialised (niche) versus mass e-retail businesses. Niche e-retail businesses can be compared to, for example, a ladies boutique clothing shop like Jenni Button in the physical world. Mass e-retail businesses can be compared to a physical mass supermarket like Makro. Three cases focus on niche e-retail businesses while one case focuses on a mass e-retail business. One case interviewed represented a company with three different niche e-retail businesses each with their own identity and brand. This case was flagged as a niche business. Owing to the nature of the “discount deals” and “group buying” cases, they were classified as both niche and mass.

5.2.7. SA e-Commerce awards

In an effort to include quality companies in the research, the researcher used the SA e-Commerce awards website extensively in selecting cases for interviewing. This awards website was started eight years ago in 2008. They use the following award categories:

- South Africa’s Favourite eCommerce Website
- Best eCommerce Website
- Best eCommerce Mobile Website
- Best Website Usability
- Best Shopping Process
- Best Customer Service

The e-Commerce award website shows per year the winner and two runners up, per above category. In order to protect the case’s identities, the researcher only listed the year the case was either a winner or a runner up.

Not all companies from the SA e-Commerce awards website wanted to participate

and as a result two companies, well known to the researcher, were selected to complete the sample.

5.2.8. Physical store

All companies interviewed were pure online e-retail companies. Most of the companies had an opinion about the idea of also having a physical store. The answers were classified in three groups, namely:

1. No – Do not currently own a physical store and no plans to open one either,
2. Yes, first – First owned a physical store before going online, and
3. No, one day – Do not currently own a physical store but have plans to open one.

5.3 Profile of interviewees

Table 5.2 summarises the details of the six case representatives that were interviewed and provides information on the interview.

Table 5.2: Profile of interviewees and interview detail

Case	Title	Years with company	Interview tool	Read the Book?	Interview duration
A	Founder – CEO	1.5 years	Skype	No, just started	1 hour, 5 minutes
B	Marketing Director	2.5 Years	Skype	No	1 hour, 2 minutes
C	Founder – Director	4.5 Years	Skype	No	1 hour, 10 minutes
D	Founder – Executive	1 Year, 10 months	Skype	Yes now, but not during initial start-up phase	1 hour
E	General Manager	3 Years	Skype	No	1 hour, 7 minutes
F	General Manager	1 Year, 9 months	Telephone	No	35 minutes

All interviewees were part of the senior management of their companies. Unfortunately only 50 per cent were also founders still performing senior roles. While

not interviewees were founders, all of them were either employed during the start-up period or were familiar with the start-up process of the business.

Initially it was anticipated that data will be collected by visiting the interviewees at their business premises. The researcher unfortunately had an unexpected back operation (L5 S1 discectomy) resulting in almost all interviews done via Skype. The Skype interviews worked well. One interview was conducted telephonically.

It was important to know if the interviewees had read the book, as the objective of this research was to explore whether South African e-retail start-ups applied the Lean Startup principles in the start-up phase of their businesses without knowing it. A company that therefore had read the book would not be suitable as there would be a possibility that the Lean Startup principles were applied. Interviewees that had read the book might have also formed an opinion and that might have affected their responses. Then again, interviewees that had not read the book might feel intimidated and would have found it difficult to participate.

The results from the research have been organised according to the research propositions and are presented next.

5.4 Results according to each research proposition

The results from the interviews are presented for each research proposition in the sections that follow.

5.4.1. Proposition 1 – Validated learning and start-up's vision

Proposition 1 is related to Validated learning and testing of the start-up's vision. Feedback from the interviews for this proposition is provided by separating the proposition into two sub-propositions.

Proposition 1A: South African e-retail start-ups favour experimentation over elaborate business plans and forecasts. Table 5.3 summarises the findings on this proposition.

Table 5.3: Summarised findings on Proposition 1A

Case	Business plan	Experi-mentation	Researched the business idea?
A	No	No	Did research to see where there are gaps in the market and what competitors do
B	No	Yes	Searched for a sector in e-retail industry where there was little or no competition
C	No	No	Research indicated the idea already worked in other countries
D	No	Yes	Knew SA was upcoming e-commerce country as partner built previous online business in SA
E	No	Yes	Research was a three week experiment by replicating the idea on an online market place
F	No	Yes	Founders were experimenting with the idea, as a project on the side of their day jobs

From the feedback it follows that none of the start-ups made use of a formal business plan, while four out of six made use of an experiment to test their business model. The following direct quotes from the interviewees support the summarised findings in Table 5.3:

Case A: "…when I say we were informal, we were really informal… [the founders] had a basic revenue model by itself, so we kind of just took it and said, "well, if we can get enough customers, then we can turn this into a business…"

Case B: "I think it all comes down to competition, there was a lot of foresight when the business started"

Case B: "So we specifically concentrate on the long tail end of products, because there is no competition there"

Case B: "…the directors were actually working for an online casino, and they decided to import some product from the US into South Africa, because there were a lot of items they found that they couldn't get their hands on in South Africa… and ja so there was no initial business plan"

Case C: "We did not have a business plan, we knew the business could work, so the proof concept had already been done in other countries"

Case D: "we do not really like them [business plans], and a lot of what we just, is not extend research and its more about building a minimum viable product, see how a market reacts, and then adjusting…"

Case D: "There was not a lot of planning involved … In fact we started off with some

bath mats, and products we have bought from Pick 'n Pay and listed them on the site, just to see what the reaction would be"

Case E: "It was basically an experiment; to be honest with you [name of e-retail business] is still an experiment"

Case E: So what happens is that exactly what is happening on [name of e-retail business] happens on Bid or Buy, so they tested it on Bid or Buy to see if it would sell"

Case F: "[name of e-retail business] really started completely on the side as a side project, let us feel out the space for premium kitchen tools and see how it goes from there"

Case F: "I do not think [the founders had] any expectations either, it could have flown, it could have tanked and it was on the side of their day jobs, so it was not life or death"

Proposition 1B: South African e-retail start-ups make use of validated learning in order to test the vision of the start-up. The Validated learning concept uses empirical data from real customers as input to establish if the vision of the start-up is aligned with what customers want. Table 5.4 provides the feedback on this research proposition from the interviews:

Table 5.4: Summarised findings on Proposition 1B

Case	Customer validation
A	No, they were more focussed on what they as the founders wanted to do and what they liked
B	Yes, customer validation is automated through touch points on website
C	No, knew the concept would work as it was working well internationally
D	Yes, was researching what customers were searching for online and stocked products accordingly
E	Yes, takes any interaction between customer and helpdesk and transforms that into customer feedback
F	No, not really customer validation. Validated their products to list more with a professional chef

From the feedback it follows that three of the start-ups made use of customer feedback in order to validate their vision for the business. The remaining three businesses were either focussed on their own vision, knew the concept would work from international companies already applying it, or validated their vision through an experienced professional. The following direct quotes from the interviews support the

summaries in Table 5.4:

Case A: "…just kind of like what we wanted to do instead of going around asking too many questions"
Case B: "…everything in our business, all our decisions are based around our customers… So anyways we re-launched our website and every single, you know, touch point and marketing around it was focussed on gaining customer input."
Case C: "…we knew the business could work, so the proof concept had already been done in other counties"
Case D: "We were looking at Google trends every hour to see what people were searching for, what they are interested in and then buying things according to that"
Case D: "Then we started studying, how people responding to the products, what are the people searching for on the sites, inside of buying according to those kind of requests, and people would e-mail us, customer care, and say, hey, you know what, there is, your site sucks, there is something wrong with, they want this, or the buttons are funny, and then with, the program is, we worked to make changes, based on the speed that, we were getting continuously, every hour"
Case D: "Ja, and then we made decisions based on these kind of information, on style my beauty offering changed from something that was more relevant to a white shopper, to now stocking ethnic hair care products"
Case E: "We use the Zen [help] desk as our customer feedback then we would change it accordingly"
Case F: "…[founder's name] managed to secure one of the brands that we sold and they can asked the chef what kind of tools were disposable in the kitchen and then they listed about 20 [of that brand's] items…"

5.4.2. Proposition 2 – Build-Measure-Learn feedback loop

Proposition 2 is related to the Build-Measure-Learn feedback loop. Feedback from the interviews for this proposition is provided by unpacking the proposition into four sub-propositions.

Proposition 2A: South African e-retail start-ups apply the Minimum Viable Product (MVP) concept to test their vision and to initiate the build phase of the Build-Measure-Learn feedback loop. The MVP concept keeps start-up entrepreneurs from spending too much money and time on developing a product that they think is perfect but the market potentially do not want or need. Table 5.5 provides the feedback on this proposition obtained from the interviews:

Table 5.5: Summarised findings on Proposition 2A

Case	Minimum Viable Product (MVP)
A	Yes, created a landing page where users can register for product once company is launched; initially only 5 products, now almost 120 products; could initially only pay via Electronic Fund Transfers (EFTs).
B	Yes, created an internal portal used by staff of company they were working for at the time; Tested concept on Google to see uptake for products; Created a pilot website in Australia but abandoned when it did not work; perform tasks manually and automate as they go along; also performed many of the logistic actions manually behind the scene in the beginning.
C	Yes, initial website was two pages designed by founders themselves; could initially only pay via Electronic Fund Transfers (EFTs) but can now handle credit cards and electronic currencies.
D	Yes, started with some product but then constantly change product offering upon customer searches and requests.
E	Yes, made use of an online market place to test concept before launching own website.
F	Yes, as the founders were software developers their initial experimental website was their MVP.

From the feedback it follows that all of the interviewed start-ups made use of an MVP in some way or another during the start-up phase of their business. The following direct quotes from the interviewees support the findings as summarised in Table 5.5:

Case A: "I mean the webpage was just a front page where you could sign in your name and sort of thing, just so we could create a presence before we actually even launched the website…"

Case A: "…but we had [only] five items. But you know that is what you have, it is more important just to get out there"

Case B: "It started off as an internal portal, and it grew and grew and grew, obviously by word of mouth..."

Case B: "We launched a pilot website in Australia, we spent a lot of money on Google trying to acquire customers and get purchases and it did not work, so we

moved out very quickly"

Case B: "…I mean we are constantly learning, measuring, automating things, making things easier"

Case C: "…our traffic justified moving away from our original design, and we got a corporate branding company in and just aligned everything and moved away completely from what it looked like initially, even our logo changed"

Case C: "From the start we had EFT and credit card, soon afterwards obviously we tried to expand [to credit cards] ja eBucks came on soon after…"

Case D: "..so we listed the stuff on our site, we did not actually hold many units of it. And then someone actually bought up a bunch of Pick 'n Pay and Checkers and actually broke it off"

Case D: "we do not really like them [business plans], and a lot of what we just, is not extend research and its more about building a minimum viable product, see how a market reacts, and then adjusting…"

Case E: "They then went and put their feelers out and created an [Name of e-retail business] shop on the Bid or Buy sites"

Case E: "Actually it is a very funny story they bought a template from a company and we hired a web designer and he exacted it to our needs and he still works with us"

Case F: "Yes in this case MVP was the site, they would not have gotten anywhere without the mechanism to fill and order, take an order and to fill it…"

Proposition 2B: South African e-retail start-ups apply actionable metrics during the measure phase of the Build-Measure-Learn feedback loop. Actionable metrics requires the entrepreneur to use metrics that are actionable, accessible and auditable. Table 5.6 provides the feedback on this proposition obtained from the interviews.

Table 5.6: Summarised findings on Proposition 2B

Case	Actionable metrics
A	A/B Testing performed on mostly marketing activities
B	A/B Testing performed directing customers between old and new site; A/B testing performed marketing (signup discount banner); Cohort testing done between customer groups (VIP vs.)
C	A/B testing performed on pricing (price points) and products (sunglasses in the summer)
D	A/B Testing performed on almost everything. To mention a few: products, newsletters, banners and even buttons.
E	Marketing efforts like banners, tested on Facebook and if successful (like or follow) then promote to online store
F	A/B Testing performed on newsletters, site design, promotions and competitions

From the feedback it follows that all of the interviewed start-ups made use of actionable metrics in some way or another during the start-up phase of their business.

The following direct quotes from the interviewees support the findings summarised in Table 5.6:

Case A: "…So we were interacting with people quite a lot and so we would ask basic questions like "what sort of products would you like to see "and " if you could change things, what would you change" and one of the things that came"

Case B: "So what we actually did is we did an A/B test, we had 50 per cent of the traffic going to the old site and 50 per cent focussed all customers on the new site around giving us feedback… we were making changes every day based on what our customers were telling us"

Case B: "So we will test, we take our VIP segment group and we will split it in half and we will send the one a rand value offer, and the other one a percentage offer and see which one does better"

Case C: "[Split testing] been a constant… but quite often sell, we use first of all sunglasses, we will sell more sunglasses during Summer"

Case C: "…but there is no reason to charge on today's [product] R195, it will always end with a 9… advertised this thing as R210, R209, people would hold back and think it is expensive"

Case D: "We do AB-testing, so our newsletters go out, with AB-testing, on newsletters for instance, to versions of the same newsletter, I send out, maybe we change some product maybe we change the color of a button, we measure and then

we optimize"

Case E: "We do that on our Facebook page, we test them out on our Facebook page before we put it onto our website and then we see what the feedback is there"

Case F: "We do, and A/B split testing is something we experiment with, it eventually that kind of testing comes down to how you segment your users and what is it exactly what you are trying to test…"

Proposition 2C: South African e-retail start-ups apply Innovation Accounting during the measure phase of the Build-Measure-Learn feedback loop. Innovation Accounting refers to non-traditional metrics challenging the entrepreneur to measure leap of faith assumptions like increased customer acquisitions. Table 5.7 provides the feedback on this proposition from the interviews:

Table 5.7: Summarised findings on Proposition 2C

Case	Innovation Accounting	Issues experienced with Innovation Accounting
A	Yes, basic measurements	Start-ups have very limited data. No systems in place to measure referrals.
B	Yes, very advanced	No issues but I think interviewee was more referring to current as oppose to when starting up.
C	No, very primitive and basic	Not enough people employed to perform function. No systems in place currently either but in the process of implementing.
D	Yes, extremely advanced	No issues. Have about 20 people just doing business intelligence and marketing efficiency measurement.
E	Sounded very basic but not sure if interviewee were the correct person for this proposition	Interviewee was not aware of any issues.
F	Yes, very mature approach	Very cautious about metrics and therefore don't react too quickly to it as it could incentivise wrong behaviour.

From the feedback it can be seen that four of the interviewed start-ups made use of Innovation Accounting during the start-up phase of their business. Issues experienced with implementing Innovation Accounting included:

- Not having the correct software to measure accurately
- Not having the correct skills to implement effectively

- Lean staff complement do not allow time and effort required for successful implementation of Innovation Accounting
- Acting too quickly on certain metrics could lead to unintended consequences

The following direct quotes from the interviews support the findings summarised in Table 5.7:

Case A: "…Facebook is kind of the easiest way to kind of see who is sharing and keep track of that. But there is nowhere for us to actually link back to track that conversion, so if you have referred the product to a friend, there's no way for us to track that"

Case B: "So a conversion rate is a visit to purchase, so that is one of the key metrics within our business, and everything comes back to conversion…"

Case C: "I understand that, but that is the way that we slim. We are a small team, we are largely overworked, we are understaffed, but the less staff members we had the more profitable we are"

Case C: "…because we do not have those metrics set up accurately enough over the various sectors that we advertise, Facebook, you name it. From that perspective we are actually in the Stone Age. We simply know that whatever we do is working, and it can be measurable on how it does on that, yes. It is going up as we speak"

Case D: "… five people which are just doing business intelligence… is probably about 15 people measuring marketing efficiency"

Case E: No comment

Case F: "Yes and while we don't obsess, we will track it very carefully but we don't necessarily react as soon as we know there is a deviation. So I think we are in a position where we watch and observe and we try and understand how these things play out because I think too often when you obsess about a measurement, you incentivize the wrong behavior…"

Proposition 2D: South African e-retail start-ups learn from the measure phase of the feedback loop and either pivot or persevere. Pivot refers to a fundamental change in either the product, business model and/or the engine of growth. Persevere requires the entrepreneur to continue and give the concept more time. Table 5.8 provides the feedback on this proposition from the interviews:

Table 5.8: Summarised findings on Proposition 2D

Case	Pivot or Persevere
A	Zoom-in pivot four months after starting the business.
B	Customer need pivot after learning from customer and then target products specifically to them.
C	Moved out of travel and leisure segment to rather focus on main product. Lean team played a role in not taking up new initiatives. Also changed from paid to viral engine of growth.
D	Has pivoted several times the business concept and customer needs for several of their online brands. Decisions on pivot need to be made quickly.
E	Learn from customers and then target accordingly. Has also pivoted with regards to technology platform, customer needs and is currently looking to pivot customer segment.
F	Tempted to pivot into physical retail store but persevered and stayed online retail only. Sceptical about pivoting too quickly.

From the feedback it follows that all of the interviewed start-ups have pivoted or persevered in some way or another during the start-up phase of their business. The following direct quotes from the interviewees support the summarised in Table 5.8:

Case A: "The first major change that we made was in June last year, we decided to cut all the other products and just focus on menswear"

Case A: "…and we decided the best way to serve those customers was to focus on menswear. So I think probably you could say it was a Customer Segment Pivot"

Case A: "…we narrowed our focus in terms of what our product offering was"

Case B: "We launched a pilot website in Australia, we spent a lot of money on Google trying to acquire customers and get purchases and it did not work, so we moved out very quickly"

Case B: "So we can actually push products onto customers instead of pull. Because we have always kind of pulled customers in, so we have always been a pull business, but it is also nice to push products onto customers because it is, you get a better conversion rate if you do that"

Case B: "…and then once you sign up you never get displayed that banner again, we drop a cookie on your computer and we say okay cool this guy is signed up, we will display him another banner the next time he comes here"

Case B: "…so say for instance a customer buys a Canon camera from us, we know he just bought a Canon camera, so I am going to display or market to him camera cases, camera bags, camera lenses, everything that is kind of around that"

Case C: "So about a year and a half ago, we did travel, we had travel Tuesdays…

We actually backtracked and we went back to the product focus perspective"

Case D: "So, buy kettles, they went to buy kettle landing page, and there was a 80 per cent bounce rate, then that information affect the buying teams, and the buying team would try and decide what is wrong with this product, is the pricing wrong, is the product just not right for our customer base, is the photography wrong, is the copy wrong, and we will discuss, and improve"

Case D: "[Name of e-retail business] was suppose to be, high end baby products, then it became, general merchandise, baby products, then it became smart solutions for design driven parents, and that pivoting vision has happened just over the last three months"

Case E: "Yes, initially we started out as service and we only had travel and saloon deals. Then we started out with products and that was about a year and a half into [Name of e-retail business] itself. Then we persevered for another year and a half and it did not work and now we are back to services again"

Case F: "We have got no physical shop and we don't plan on having it either… [a physical store is] one of the biggest points that we could easily have pivoted on and in hindsight we are absolutely ecstatic we did not"

5.4.3. Proposition 3 – Engines of growth

Proposition 3 is related to the Engines of growth. Feedback from the interviews for this research proposition was done by classifying the cases into the three engines of growth as defined in the Lean Startup.

Proposition 3A: South African e-retail start-ups apply one or more of the three engines of growth as defined by the Lean Startup methodology.

According to Ries (2011) the engines of growth for a start-up can be classified as sticky, viral or paid. Table 5.9 provides the feedback for this proposition from the interviews:

Table 5.9: Summarised findings on Proposition 3A

Case	Sticky growth	Viral growth	Paid engine of growth
A	Yes: - Discounts received for signing up - Subscriptions to blogs	Yes: - By building a community through Facebook, brands and blogs which require loyalty and leads to viral growth through word-of-mouth.	Yes: - Pay-per-click advertising through Google - Banner advertising on multiple sites
B	Yes: - Discounts received for signing up	Yes: - By offering products that are obscure or unavailable in South Africa, loyalty and communities formed that led to viral growth through word-of-mouth	Yes: - Pay-per-click advertising through Google - Banner advertising on multiple sites
C	Yes: - Discounts and prizes received for signing up on actual website or via Facebook	Yes: - By approaching the market in a reverent humour or comical way they created a following and also led to word-of-mouth	Yes: - Paid advertising through Facebook - Product changes daily so can't use pay-per-click - Tried banners on other sites but it did not really work for them
D	Yes: - Discount coupons received for signing up	Yes: - By reducing profit margins on products to zero, customers return and company can retarget. It also leads to word-of-mouth	Yes: - Pay-per-click advertising through Google
E	Yes: - Customers are rewarded via credits for referring other customers. This creates stickiness as credits can only be used upon next	Yes: - Customers are rewarded via credits for referring other customers	Yes: - Paid advertising through Facebook

	purchase		
F	Yes: - Discounts received for signing up - Shipping cost on purchases is always free	Yes: - By following their mantra of being remarkable, they've created a loyal community leading to word-of-mouth - Hand written "thank you" note with every online purchase	Yes: - Pay-per-click advertising through Google

From the feedback it follows that all of the interviewed start-ups applied all of the engines of growth as defined by the Lean Startup methodology and principles in order to accomplish sustained growth. The following direct quotes from the interviewees support the summarised findings in Table 5.9:

Case A: "Our big focus is just on building community initially"

Case A: "We are trying to increase our Viral Growth factor by using our community that we have because we know that each one of our brands has loyal customers"

Case A: "Ja, I would think that it is probably a mixture of the Viral and the Paid Engine for Growth"

Case B: "…generally what we do is we offer a discount, which I suppose could be considered as a free coupon or a free voucher. So you will see a banner that says: sign up now and get R50 free"

Case B: "I mean we would probably be a bit of everything [all three engines of growth], I think you have to be in our space"

Case B: "…a lot of our growth is again attributed to paid, so through Google"

Case C: "…as that Facebook reward, …, you get R10 off your Facebook wall, you get R10 off your purchase price, 20 or 30 bucks, but your entire database, all your friends, see a link to this company they have never heard of, so it is marketing working for itself"

Case C: "…for example for the first week and a half we were running the big banner for giving away 8 iPad mini's on top of our website"

Case C: "…approached the market from a very much reverent, comical basically, reverent write up perspective… they tend to approach it very much from a blog writing style. So we tried to create a niche for ourselves in that perspective"

Case C: "So just throwing it out there with banner ads and helter skelter approach we find is not very effective yet, and definitely not for us currently when we are

looking at doing the adwords"

Case D: "…is when you are doing market expansions, you sacrifice, margins at the expense of acquiring new customers, with the hope that they will, buy, product that is at a higher margin in the future…"

Case D: "We have run promotions where we make zero margins on our products, so it is free, essentially, because it is such an unbelievable price, but we know, that once we capture these guys, we can remarket"

Case D: "[Google ad words] is about 80 per cent of our marketing spend"

Case E: "Yes we do we have what we call the referral and when they do refer someone they get 10 [company name] credits, your [company name] credits can be used to purchase any deal"

Case E: "Facebook then sends us weekly updates as to how many likes we have got, how many views we had etc. I think we pay quite a bit per month for our Facebook page"

Case F: "…we have always had a bit of a freemium offer; we don't include shipping cost…"

Case F: "remarkable is all about making a mark and if you just be remarkable in some way or another, people will remark and that remark picks up weight and momentum and has a snowball effect…"

Case F: "…it's a better way to do it so we obviously pay for advertising and its' a very valid way to spend our money"

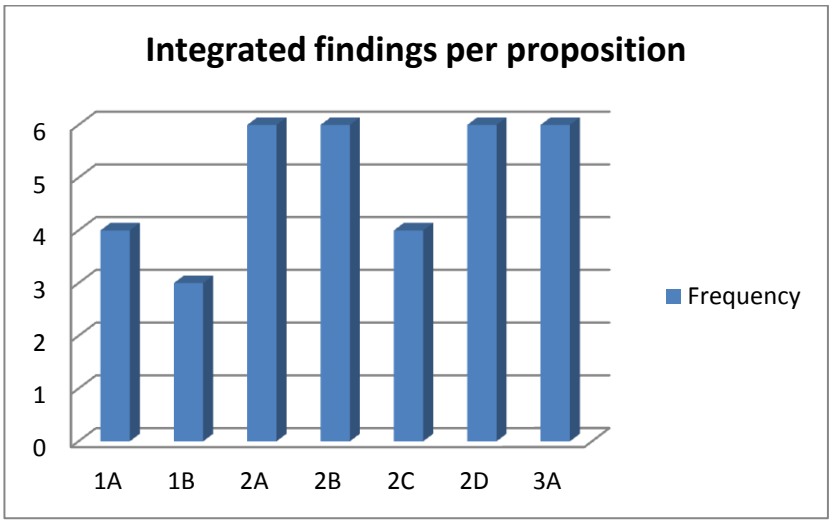
5.5 Integrated research findings

The findings of the study are summarised and compared in this section.

5.5.1. Integrated findings per proposition

Responses from the cases to the propositions were either positive or negative. By plotting these responses on a histogram, the findings can be visually summarised. The X axis of the histogram refers to the seven propositions as documented and numbered in Chapter 4. The Y axis indicates the number of positive responses from the six interviews per proposition. Figure 5.1 illustrates that out of the seven research propositions, four out of six cases provided positive responses.

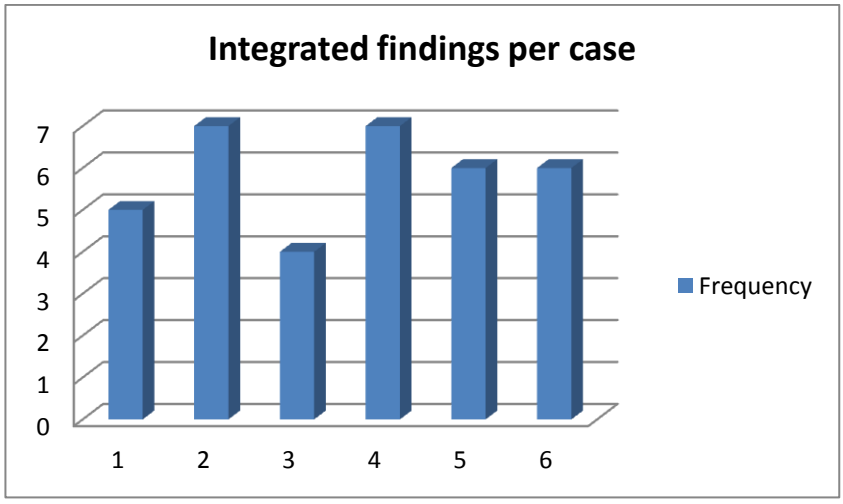
Figure 5.1: Integrated findings per proposition histogram



5.5.2. Integrated findings per case

By plotting the responses on the propositions on a histogram per case, it would indicate which cases applied the Lean Startup methodologies and principles more or less. The X axis of this histogram refers to the six cases interviewed for this research. The Y axis indicates the frequency or number of positive responses on the seven propositions. Figure 5.2 illustrates that out of the six cases, two responded positive to all seven research propositions.

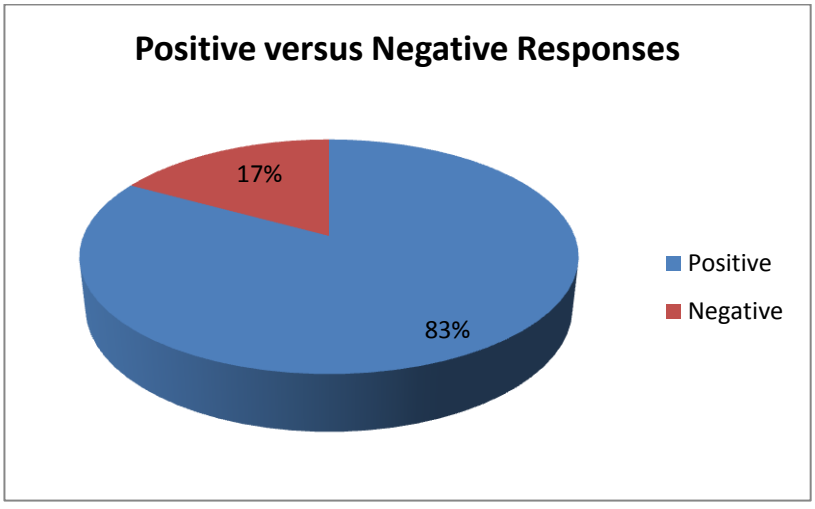
Figure 5.2: Integrated findings per case histogram



5.5.3. Positive versus Negative responses

By plotting the average responses on the propositions on a pie chart, it is illustrated that on average the majority of the responses were positive. Figure 5.3 indicates that the average positive response per case per proposition was 83 per cent.

Figure 5.3: Positive versus Negative responses pie chart



Given that none of the six interviewees (except one that had recently started reading the book and one that read the book post their start-up phase) had previous

knowledge of the Lean Startup methodologies and philosophies during the start-up phases of their business. The sample was therefore regarded as acceptable as there was no possible influence on the effectiveness of the study.

The responses by the interviewees were found to be in line with the Lean Startup methodology and philosophy.

5.6 Chapter summary

In this chapter the results from the interviews conducted with the cases were presented for each research proposition. The findings were summarised. Direct quotes from the case interviews were presented to support the summaries. Finally, the findings of the multiple case studies were integrated and presented per proposition and per case in the form of histograms and a pie chart.

Chapter 6: Discussion of results

6.1 Introduction

The purpose of this chapter is to interpret and discuss the findings as explained in the previous chapter. This discussion includes highlighting key findings of the study and drawing conclusions from these findings. The chapter links theory presented in the literature review (Chapter 2) with the findings. Comments are made about the extent to which the findings were able to answer the research question of the study. In closing, limitations inherent to this study are discussed.

6.2 Key findings linked to each research proposition

Three main research propositions were defined. The key findings per proposition are discussed in the following section.

6.2.1 Proposition 1 – Validated learning and start-up's vision

Proposition 1 consists of two sub-propositions. The findings per sub-proposition are discussed next.

Proposition 1A: South African e-retail start-ups favour experimentation over elaborate business plans and forecasts

A study by Bewayo (2010) found that the majority of business owners do not prepare business plan for their start-ups. Reasons for not writing business plans include: no need for financing; interference with intuitive decision making; and lack of documentation. The findings as presented in Chapter 5 introduce more reasons why start-ups might not feel it necessary to write business plans. These reasons could be emerging market specific in the sense that third world countries are often lagging behind first world countries.

Most ideas of South African e-retail start-ups interviewed originate from similar

companies in developed countries. The South African entrepreneur would study the concept observed in another country and subsequently attempt to replicate it with minor tweaks for the South African market. As a result, the entrepreneur did not find it necessary to develop a business plan. The entrepreneurs did however find it very useful to experiment with the concept prior to implementing it.

With large international players it is also possible to create relationships where a South African entity, through technology, can create a South African presence and display all the items from the large international player on a local e-retail website. With this supply chain concept, the South African entity is not required to keep stock and merely places an order on behalf of the customer with the international wholesaler. This concept is referred to as “drop shipping” (Hayes & Youderian, 2013). The entrepreneur does not have to test if the products will sell online as it is already proven in the international arena.

It was found that start-ups in the study prefer experimentation as opposed to elaborate business plans. Experimentation was mostly in the form of a basic website that was initially setup to test the retail shoppers’ appetite. Once the customers confirmed there is an appetite they would spend more time and money upgrading their online business. Case E tested a business concept by first setting up a store front on an online marketplace (Bid or Buy). Once the business concept was proven on the online marketplace the entrepreneur launched the e-retail business on an independent platform.

Most South African start-ups interviewed performed detailed research in an effort to validate their ideas. The research was mostly with regards to what competitors do in the same space. If there was no or weak competition, the entrepreneur would enter the market.

In conclusion, since South Africa is a developing country, it makes it easier for e-retail entrepreneurs to start-up by applying concepts already proven in international countries. This requires little planning and research. From a planning point of view South African e-retailers only need to investigate if there are already competitors and how strong or weak the competitors are. Depending on the outcome from the research they will experiment with basic websites. As a result, the findings are in

favour of the proposition.

Proposition 1B: South African e-retail start-ups make use of validated learning in order to test the vision of the start-up.

E-retail businesses in South Africa apply an agile methodology to start-up. In line with the agile manifesto (Manifesto for Agile Software Development, 2001), these businesses prefer making small iterative changes to their online businesses while consistently checking if the product is what the customer wants.

This proposition received the worst response from the cases with only half of interviewees responding positively. The reason for this could be attributed to the following observations:

- Some of the younger entrepreneurs were more concerned with satisfying their own interest compared to what product will sell. They operate under the mantra of 'follow your passion and you will be successful'.
- Several of the interviewed e-retail start-ups were copies of international successful businesses. The entrepreneurs therefore knew the business model will work and basically only had to create a platform and market it without having to validate it with customers.
- In relation to the above point, one of the entrepreneurs acquired the right to sell and distribute a successful international brand in South Africa. As the brand was already successful internationally, the entrepreneur simply had to develop an online platform to sell it.

The cases that responded positively to this proposition adapted their business models around the customer and what they want and most importantly, what they are willing to pay.

In conclusion, the finding favours the proposition as all cases agreed with the validated learning concept. The different start-up circumstances, however, did not require all cases to apply the concept.

6.2.2 Proposition 2 – Build-Measure-Learn feedback loop

Proposition 2 consists of four sub-propositions. The findings per sub-proposition are discussed in the sections that follow.

Proposition 2A: South African e-retail start-ups apply the Minimum Viable Product (MVP) concept to test their vision and to initiate the build phase of the Build-Measure-Learn feedback loop

An important component that was not covered by the Lean Startup methodology was the impact of marketing activity on the success of an MVP. A well planned lean launch of an MVP with the right timing and marketing efforts could be the determining success factor (Calantone & Di Benedetto, 2011). Two of the cases sited quick to market as a reason for applying the MVP concept.

It was also found that the MVP concept is relevant and easy to explain in the case of a manufacturer producing a physical product. The manufacturer can produce a basic product and start selling it and subsequently improve the product with feedback from customers. E-retailers do not really produce anything; all they do is sell final products to end users online. As a result, e-retailers interviewed mostly saw their online website stores as the product they manufacture. As a result, all cases indicated their initial e-retail website was an MVP, and that their websites were used as MVPs in the following ways:

- Online marketplace stores – Entrepreneurs can create online stores very quickly and for almost free at an online marketplace like Bid or Buy or eBay. These hosts usually share in revenue from sales which makes it good to initially test a business concept but suboptimal in the long run. Online marketplaces like eBay in the US and UK have created massive communities over the years through consistent marketing and improving of their online sites (Swallow, 2010). Cases interviewed as part of this research felt that South Africa's premier online marketplace, Bid or Buy, has not done enough to expand their community. As a result they proffered to not to make use of Bid or Buy as an MVP as that would limit the amount of people that can get access to their product or service. They however conceded that Bid or Buy is very successful for once-off or unique products and services.

- Wizard of Oz – During the start-up phases of the business, many of the cases indicated they put up a front that looks like a real working online store while performing many of the tasks associated with the online store, manually in the background. Once the business concept was proven the manual processes were automated.

Additional to the above e-retail website MVPs, the following MVPs were identified by the interviewees:

- The products or services offered initially were often used as an MVP to get to market as quickly as possible and to test the market's appetite. The initial products or services were often changed upon customer demand. The number of products available for sale during the start-up phase was very limited and was incrementally increased as the start-up business concept was proven.
- The online payment method was also often used as an MVP. Some of the cases started with Electronic Fund Transfers as their primary payment method MVP as that is the easiest process to implement. As time progress they would implement credit card facilities and electronic currencies like eBucks and Discovery miles.
- Some cases even saw their branding and image as an MVP until it justified rebranding by professional designers.

In conclusion, the Lean Startup method stresses that entrepreneurs should not waste time and money on building a product that customers potentially do not want. It advocates getting out of the building, testing and making sure there is a market for the product. As a result, the findings are in favour of the proposition as MVP's for South African e-retail start-ups were observed in the form of a platform, product and/or service, payment mechanisms and even branding.

Proposition 2B: South African e-retail start-ups apply actionable metrics during the measure phase of the Build-Measure-Learn feedback loop

Nielson (2005) concluded that there are four main benefits to A/B testing, namely:

- It measures the actual behaviour of customers under real life conditions
- High statistical accuracy

- Elimination of incorrect assumptions
- Inexpensive and easy implementation

The findings were aligned with the theory as all cases responded positively to this proposition. The A/B testing actionable metric was observed and applied in the following areas:

- Marketing activities like newsletters, banners, promotions and competitions
- Site designs, enhancements and upgrades
- Pricing of products were increased and decreased to find right price
- Products and quality of products were changed until e-retailer realised which products customers demand

It can be concluded that actionable metrics is a popular and effective measuring tool for the interviewed e-retail start-ups. Case D mentioned that they are so obsessed with A/B testing that they even tested the impact of using different colours on a button to see if it creates more or less sales. The findings are therefore in favour of the proposition.

Proposition 2C: South African e-retail start-ups apply Innovation Accounting during the measure phase of the Build-Measure-Learn feedback loop

Peterson et al. (2009) created a model for identifying and implementing metrics to maximise profitability and shareholder value. It was found that the Lean Startup Innovation Accounting uses the forward-looking metrics associated with both customer and store activities from this model. Forward-looking metrics use past behavioural information to predict future customer behaviour. Historic data for start-ups are however sparse. This was also the case with the South African e-retail businesses that participated in this research. Many of the start-ups initially used manual spreadsheets to maintain data from their e-retail businesses. This, together with the scarce data, complicated Innovation Account for the cases interviewed.

Due to the specialist nature and setup required for Innovation Accounting, it was found that start-ups often place this item on the back burner. A low lean staff compliment was given as a reason.

Innovation Accounting often requires specific analytic software which is expensive and not always freely available.

Lastly, Innovation Accounting can require mathematical skills. It was found that the interviewed entrepreneurs had a bias towards business compared to statistics.

Although all interviewees agreed that Innovation Accounting is very important in a start-up, there were valid reasons why it was not properly implemented, namely: lack of software tools, lack of skills, lean staff complement and insecurity to act on results. It was found that the bigger more successful cases could more easily implement Innovation Accounting compared to smaller cases. Reasons for this were specialised and larger staff compliments.

In conclusion, even though some cases applied Innovation Accounting effectively, it was found that the majority of the applications during the start-up phase were very basic. Unfamiliarity with regards to this concept was also observed in many cases. As a result, the finding is not in favour of this proposition.

Proposition 2D: South African e-retail start-ups learn from the measure phase of the feedback loop and either pivot or persevere

Five out of the six cases interviewed have pivoted in some way or form during the start-up phase of their business. In line with the ten pivots identified by Zwilling (2011), the following seven pivots were identified during the interviews:

1. Zoom-in pivot – Started with apparel for both male and female and then zoomed into men apparel only
2. Zoom-out pivot – Started with specialised imported goods and subsequently expanded into mass sales of almost any product
3. Customer segment pivot – Currently moving into the upcoming black middle class
4. Customer need pivot – Moved out of the travel and leisure segment. Also expanding into physical stores
5. Business architecture pivot – Moved from services and travel to product
6. Engine of growth pivot – Changed from paid to viral engine of growth
7. Technology pivot – Changed online technology to be in-house developed

It was also found that pivoting is an emotional and stressful event during the start-up phase of an e-retailer. It requires careful planning and participation from both operational and management teams. Some interviewees commented that once the pivot decision is made, it should be implemented quickly and effectively. All interviewees agreed that failure to pivot when it is necessary could be fatal for the business. One interviewee was sceptical about pivoting sighting their business would have been at risk if they continued a proposed pivot.

Technologies like cookies were used extensively by cases interviewed to learn and build a profile of a customer. A "cookie" is a small piece of information in the form of a text file, sent by a web server to store on a web browser so it can later be read back from that browser (Fitzwilliam College, 2008). The information gathered from cookies was subsequently used to target the advertisements at the specific user.

Due to the extreme uncertainty of a new start-up, pivoting and persevering are unavoidable decisions that need to be made at some point during the start-up phase. It was found, however, that certain cases were pivoting too repeatedly which led to the researcher observing they were insecure about their business model.

As all cases have pivoted or persevered in some way or form during the start-up phase of their business. It can be concluded that the findings are in favour of the proposition.

6.2.3 Proposition 3 – Engines of Growth

Proposition three consists of one sub-proposition. The findings for this sub-proposition are discussed in the section that follows.

Proposition 3A: South African e-retail start-ups apply one or more of the three engines of growth as defined by the Lean Startup methodology

In line with the Market orientation theory (Hou, 2008), most cases were obsessed with the customer and developing cultures within their businesses that support this.

Case F developed an in-house mantra of being “remarkable” which ensures everything they do is about providing a good customer experience. As an example, they ship a personalised hand written “thank you” note with every online purchase. Market orientation is related to the sticky engine of growth and the following sticky engines of growth were observed:

- Discounts for signing up – Most of the e-retailers applied this concept. It is debatable if this is sustainable as it is not guaranteed the customer will return once the initial discount has been used. The cases were however very confident about their products and were convinced that once a customer uses their product and/or service they will continue to do so. In other words, the discount for signing up will create stickiness.
- Discounts for referring new customers – This method could be sustainable if the cost associated with acquiring new customers is less than the discount offered to the new customer.
- Running specials on products – With this method profit margin is sacrificed in an effort to attract new customers and retain existing customers. It could be sustainable if the customers return or buy additional products while visiting the store.
- Subscriptions to blogs – This method can ensure customers return to the store but does not guarantee sales. Customers will return if they can associate and find the content of the blog relevant. Costs associated with maintaining the blog are required to be covered from profit margins.

Viral engine of growth - All interviewed start-ups make use of this engine of growth. It was found that viral growth mostly occurs through the offering of quality and obscure products. Many new first world products are initially not freely available in South Africa, for example the latest Apple technology. Offering these products could ensure word-of-mouth and communities are formed that could lead to viral growth. By building a community, e-retailers felt they will grow their customer base through loyalty. Many of the e-retailers felt that offering quality product and service would ensure word-of-mouth viral growth. Lastly, Case D applied a reverent humour method of interacting with their community. This is aligned with the findings of Porter and Golan (2006) that humour is the universal appeal for making content viral.

Paid engines of growth – All interviewed start-ups make use of this engine of growth mostly through Google ad word campaigns, Facebook advertisement and banner advertising on multiple sites. It was found that this works better for sites selling a specific product or segment. It did not work well for Group buying and Discount buying companies as these companies sell a different product almost daily. This makes sense as the products sold by these e-retailers can change daily making it hard to pay for a specific advertised word. Advertised words like “daily specials” could be used but the interviewees felt these words were not effective as potential customers prefer to search for a specific product or service.

In conclusion, the prevalence of all three engines of growth in all interviewed cases is sub optimal according to the Lean Startup methodology and principles. According to Ries (2011), start-ups can easily be drowned with opportunities and are therefore required to focus. He recommends a start-up focus on one engine of growth and the subsequent continuous measuring of that engine of growth. Even though the interviewed cases agreed with the concept, they felt opportunities could be missed by only focussing on one engine of growth.

As the three engines of growth were observed in all cases during the start-up phase of their business, it can be concluded that the findings are in favour of this research proposition.

6.3 Limitations of the study

The findings of this study must be interpreted taking the following limitations into consideration:

- The researcher often found it was difficult to ensure the interviewee was referring to start-up phase of the e-retail business as opposed to current business phase. This was specifically the case with the older more established businesses. It was also more prevalent during the measurements section of the second proposition (Build-Measure-Learn). As per the findings, the measurement activities during the start-up phase were usually primitive. This short coming was usually quickly corrected once the e-retail business got some traction and was in many cases the key focus of the company

during the interview period. Hence the importance of it currently and the difficulty to separate the now from the then.

- In line with the limitation of the above measurement feedback, it was in general difficult to focus the interviewee on the start-up process as opposed to exciting initiatives they are currently working on.
- In order to address the above issues, it would be recommended that future research be conducted during the actual start-up phase as oppose to, in some cases, a couple of years later. This will also ensure the experience is still fresh in the interviewee's memory.

Another limitation to the study is the fact that only six cases were explored and that no generalisation of results can be made. This limited number of cases was as a result of the following factors:

- In line with the Lean Startup concepts, most e-retailers employ lean staff compliments. As a result two founder-owners approached were entrenched in the daily operations and extremely busy making it impossible to get an interview with them.
- Trade secrets associated with e-retail are easy to copy or replicate and these commercial sensitivities caused two of the approached South African e-retailers to decline the request for interview.
- The researcher had an unexpected back operation (L5 S1 discectomy) which caused a six week reduction in time available to conduct research.
- The Lean Startup methodology and philosophy is very new. Subsequently very little research has been conducted on this topic.
- The Lean Startup methodology and philosophy was originally developed for technology businesses. Many ideas, concepts and terms used were developed by technology practitioners and not theorists. This forced the researcher to make use of less scientific references.

6.4 Chapter summary

This study aimed to determine whether young e-retail businesses in South Africa used the principles of the Lean Startup methodology and philosophy in the start-up phase of their business. Six of the findings were in favour of the seven propositions.

Taking into account the limitations of the study, this indicates a high correlation between the findings and the Lean Startup methods and philosophy.

Chapter 7: Conclusion and Recommendations

7.1 Introduction

The purpose of this chapter is to provide an overview of the study and state how the objectives of the study were achieved. This discussion includes the key findings of the study and conclusions drawn from these findings. The chapter presents recommendations that evolved form the key findings and literature, followed by recommendations for future research. In closing, the chapter reflects on the extent to which the findings were able to answer the research question of the study.

7.2 Overview

The primary objective of this study was to explore the activities undertaken during the new venture creation process by specifically comparing them to the Lean Startup principles and methodologies as documented by Eric Ries (2011). Ries documented systematically inexorable logical concepts applicable to start-up businesses and as a result the researcher envisaged that these concepts would be observable in South African start-up business.

In order to achieve the research objective the researcher interviewed six South African e-retailers which represented a variety of segments within the e-retail industry.

7.3 Main findings

The e-retail start-ups interviewed preferred experimentation to elaborate business plans and forecasts. This can be because South Africa is a developing country, which makes it easier for e-retail entrepreneurs to start-up by applying concepts already proven in international countries. This requires little planning and research. Depending on the outcome from the research, e-retail start-ups will experiment with basic websites.

Validated learning refers to using empirical data from real customers as input to establish if the vision of the start-up is aligned with what customers want. It was found that the e-retail start-ups make use of validated learning in order to test the vision of their start-ups. Circumstances like the rights to sell an international brand in South Arica and concepts copied from first world countries did however not always require the start-up to apply the concept.

MVPs prevent start-up entrepreneurs from spending too much money and time on developing a product that they think is perfect but the market potentially do not want or need. E-retail start-ups apply the MVP concept in many forms to test their vision and to initiate the “build” phase of the feedback loop. MVPs were observed in the form of a platform, product and/or service, payment mechanisms and even branding.

The e-retail start-ups apply actionable metrics during the measure phase of the Build-Measure-Learn feedback loop. The A/B testing actionable metric was used for marketing, site designs, pricing and even to determine the quality of products demanded by customers.

Innovation Accounting challenges entrepreneurs to use non-traditional financial ratios to measure the success of the business. The e-retail start-ups did not apply Innovation Accounting convincingly during the measure phase of the Build-Measure-Learn feedback loop. Reasons for this included lack of specialised software and data, capacity shortages and lack of skills and knowledge.

The e-retail start-ups learn from the measure phase of the feedback loop and either pivot or persevere. It was found that all of the interviewed start-ups have pivoted or persevered in some way or form during the start-up phase of their business. Pivoting and persevering seems to be an unavoidable decision that needs to be made at some point during the start-up phase. Seven different types of pivots were observed.

Engine of growth is the mechanism that start-ups use to achieve sustainable growth and consists of the sticky, viral and paid engine of growth. The e-retail start-ups applied all three of the engines of growth as defined by the Lean Startup methodology. The prevalence of all three engines of growth is sub optimal as start-ups can easily be drowned with opportunities and are therefore required to focus.

Sticky engine of growth was observed in the form of discounts for signing up; discounts for referring new customers; running specials on products; and subscriptions to blogs. Viral growth mostly occurs through the offering of quality and/or obscure products which leads to word-of-mouth and community building. Lastly, paid engines of growth in both the pay-per-click and pay-per-view models were observed.

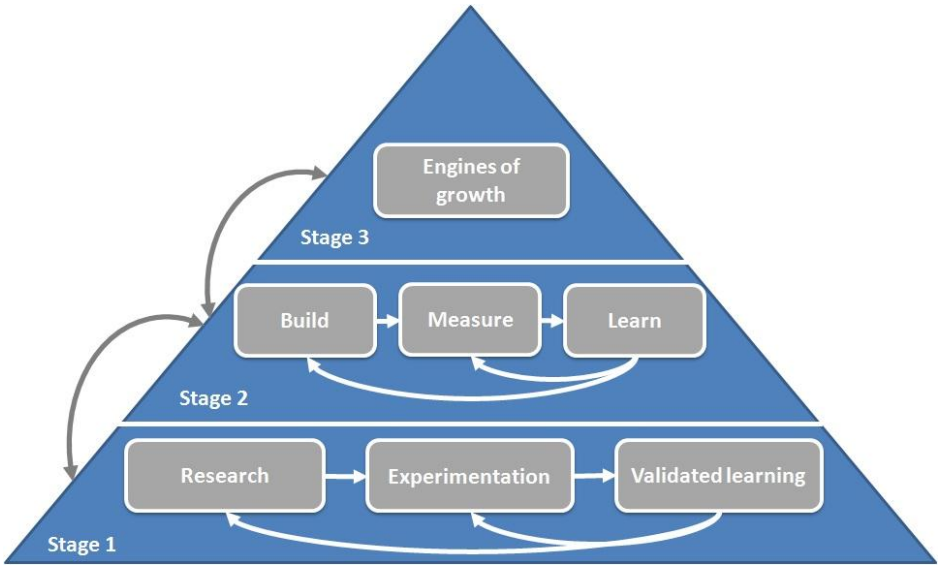
7.4 Model

By considering the principles and methodologies defined in the Lean Startup and the findings of this research, the researcher created a model that could serve as a roadmap for start-ups during the initial phases of the new venture creation. The model suggests that start-ups follow three high level steps to create a new business:

- Stage 1 – Exploratory phase – During this iterative stage the entrepreneur is required to research, experiment and subsequently test the concept against potential customers.
- Stage 2 – Iterative product and service enhancement stage – If the exploratory stage yield positive results the entrepreneur can progress to stage two of the model. This stage represents the Lean Startup's Build-Measure-Learn feedback loop. This stage does not have an end and the entrepreneur is required to continue enhancing the product and service during the business life.
- Stage 3 – Increase customer base – This stage requires the entrepreneur to constantly review and improve the customer base of the new venture. The sticky, viral and paid engines of growth must be applied during this phase.

The three stage start-up model is visually illustrated in Figure 7.1.

Figure 7.1: The three stage start-up model



7.5 Contributions and suggestions for future research

Given that none of the six cases had previous knowledge of the Lean Startup methodologies and philosophies during the start-up phases of their business, the sample was regarded as acceptable as there was no possible influence on the effectiveness of the study.

The Lean Startup was only documented in 2011 and as a result is still a very new methodology in the entrepreneurial arena. Subsequently very little research has been conducted on this topic. This research contributes specifically to the e-retail industry of the South African economy in the sense that it confirms that the Lean Startup methodologies and principles are applied by South African e-retail start-ups during the initial phases of the new venture creation process.

This research was only conducted in the e-retail industry. Future research can be conducted to establish whether the Lean Startup methodology and principles are also applied in other industries.

The following topics were observed during the interview process and future research could be useful and contribute to the body of knowledge:

- Even though niche versus mass was not a proposition for the researcher, it was interesting to find out during the interview process why certain players operate niche versus mass online stores. The biggest reason for niche online stores was the size of the South African online market which was estimated by one of the cases to only be 1.2 million people. As a result, e-retail players prefer to build loyalty and a community. Mass customers were seen as fickle that will just go where they get the best price.
- Another interesting findingwas with regards to physical stores versus online stores. All but one interviewee only wanted to stay online. Case D was keen on also opening a physical store: “the physical store is very good, just because of the nature of furniture, people need to touch and feel a sofa, beds, a chair, so we reacted to the market.” A comment was also made that in South Africa with its high crime rate it is extremely dangerous to open physical stores selling expensive goods like computers or jewelry. As a result, the e-retail space is very competitive in these segments of the South African Internet market environment.
- Another interesting observation was that majority of the companies were operated from Cape Town. This is counter intuitive if you consider that 48 per cent of online sales occur in Gauteng (Sletcher, 2011). Cape Town is a harbour city and as e-retailing is often a logistics game; it might be that imports are imported here. As a result companies might want to be closer to their distribution centres. It is recommended that this phenomenon is researched further.
- From the literature review it was clear that more men buy online compared to woman (Sletcher, 2011). However, interviewees also distinguished between what the different sexes buy. They believed that women buy more services, while men buy more products. This belief warrants more research.
- Further research is required to investigate if South African e-retailers would perform better if they focused on one engine of growth only.

7.6 Conclusion

The examination of the Lean Startup methodology and philosophy as a tool in strategic entrepreneurship and entrepreneurial management in a practical sense was the central focus of this study. Since the average positive response per case and per proposition was 83 per cent, it can be concluded that without realising it, the interviewed South African e-retail businesses applied nearly all the principles of the Lean Startup methodology and philosophy in the start-up phase of their business.

A strategic and management approach to entrepreneurship involves the promotion of activity which is both entrepreneurial, and leverages from an organisation's core skills and resources. This study points to the potential for further practice of the Lean Startup methodology in both small and large organisations.

Given this study has been limited to an exploratory study of the Lean Startup methodology in selected South African e-retail businesses, limitations arise with respect to the transferability of these results to brick-and-mortar businesses and businesses in other sectors. As such, the uncovering of this practice in the context of a selection of South Africa’s e-retailers presents an invitation for future investigation of similar activity in more e-retailers, other sectors and regions, particularly through the use of quantitative-empirical surveys.

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Appendix 1: Informed consent letter

The Lean Startup methodology: An exploratory study of the principles applied by South African e-retailers

Dear participant,

I am conducting research on principles of the Lean Startup methodology applied by South African e-retailers during the start-up phases of their businesses as part of my course requirements for an MBA at the Gordon Institute of Business Science (GIBS) in South Africa. To that end, you are requested to please participate in an interview which is expected to last about an hour, and will help us understand which principles of the Lean Startup methodology were used during the start-up of your e-retail business. Your participation is voluntary and you can withdraw at any time without penalty. I confirm that your identity will remain anonymous and no names will be disclosed. Please note that all interviews have to be recorded to ensure accurate transcriptions.

If you have any concerns, please contact me or my supervisor. Our details are provided below.

Researcher name: Magnus de Wet
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Researcher name: Prof Elana Swanepoel
Email: swanee1@unisa.ac.za
Phone: 083 381 1980

Signature of participant: _____

Date: _____

Signature of researcher: _____

Date: _____

Appendix 2: Interview guidelines and questions

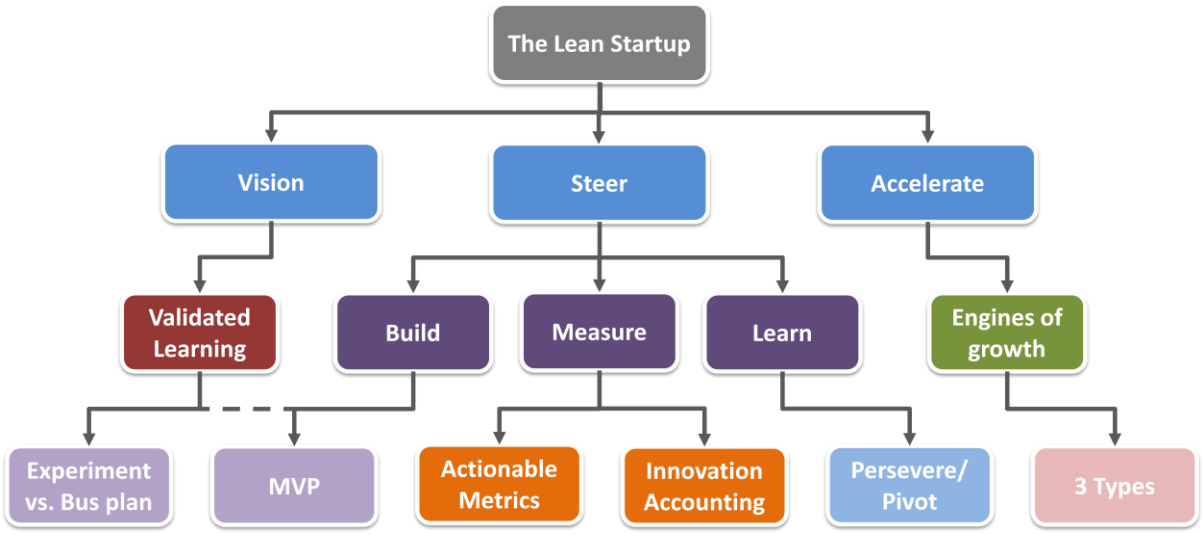
The Lean Startup by Eric Ries

Summary by Magnus de Wet for background purposes to research interview

Eric Ries (2011) in his book "The Lean Startup" developed concepts for creating businesses and products. The book is arranged in three parts (see Figure 1 below):

- The first part is related to the ***vision*** of the start-up. By applying a concept called "**Validated Learning**", the entrepreneur knows what product to produce as he understands what customers want and what they are willing to pay for. It favours experimentation over elaborate business plans and forecasts.
- The second part is related to ***steering*** the start-up and introduces the "**Build-Measure-Learn**" feedback loop concept.
- The third part is related to techniques that enable start-ups to ***accelerate*** through the Build-Measure-Learn feedback loop. In order to assist the entrepreneur to focus on the correct metrics, Ries (2011) introduces the concept of limited "**Engines of growth"**.

Figure 1: Diagrammatical summary of the Lean Startup method and concepts



Source: Created from Ries (2011)

The Lean Startup claims that detailed plans with long-term strategies are not necessarily an indicator of success for start-ups. According to Ries (2011), start-ups operate under too much uncertainty, initially not knowing what or who their product or customer would be. The **Validated Learning** concept uses empirical data from real customers as input to establish if the vision of the start-up is aligned with what customers want. This data has proven to be more tangible, accurate, and quicker than traditional business plan forecasts. The data can be collected through scientific experiments. In the Lean Startup, experiments are not for example theoretical research questionnaires; it is real first products. As a result the Lean Startup operates under the principle of **lean planning and more management of the chaos** associated with the start-up process.

Ries (2011) creates the **Build-Measure-Learn Feedback Loop** as an essential process in any start-up. The quicker the start-up can accelerate from *turning* ideas into products, *measure* how customers respond to the products and then *learn* from the feedback, the less initial start-up capital is required and the quicker potential disastrous projects are abandoned. The Build-Measure-Learn Feedback Loop is an iterative experimentation process with the main purpose of applying feedback from customers to the product, during every iteration.

The **Minimum Viable Product** (MVP) refers to the "Build" portion of the feedback loop and attempts to prevent start-up entrepreneurs from spending too much money and time on developing a product that they think is perfect but the market potentially don't want or need. The Lean Startup encourages start-ups to test their MVP with the market as soon as possible by moving through the Build-Measure-Learn Feedback Loop as quickly as possible. The MVP can also be used as the original prototype to test the vision. The feedback received is both quantitative (how many customers use the MVP and find it useful) and qualitative (what customers like or don't like about the MVP). Examples of MVPs include but are not limited to:

- Explainer video – The entrepreneur creates a short video that explains what the product does and why people should buy it. For example Dropbox.
- Online marketplaces – Entrepreneur first test the market demand through a online marketplace. For example BidOrBuy.
- Landing Page – The purpose of a landing page is to quickly communicate the value of the entrepreneur's offering and call the visitor to action.

- Wizard of Oz – Entrepreneur puts up a front that looks like a real working product, but manually carries out product functions. For example Zappos.
- Concierge – Instead of providing a product, the entrepreneur provides a service that simulates the exact steps people would go through with the product. For example Food on the table.
- Crowd funding campaigns – The entrepreneur raises funds from customers before building the product. For example Kickstarter.

Once the MVP is created, the entrepreneur must "measure" its success. The Lean Startup cautions the use of vanity metrics and requires the entrepreneur to uses **metrics that are actionable, accessible and auditable**. These metrics can include but is not limited to:

- Cohort Analysis groups the customers and then measures per cohort as oppose to cumulative or gross metrics. This measurement method explains the business quantitatively and has more predictive power.
- Split Testing is an experimental process where different versions of a product are offered to customers at the same time. By observing sales in the different product versions the start-up can determine which product version will be more successful.
- By formulating an assumption and performing Hypothesis testing on it.

The Lean Startup challenges businesses to "measure" productivity and profitability differently and not through traditional tangible measurements like for example the number of widgets created per day. It assists the entrepreneur to measure their leap of faith assumptions and translate their learning into measurable items. This concept is referred to as **Innovation Accounting** and can include but is not limited to:

- New customer acquisition rate
- Customer retention rate
- Customer attrition rate
- Customer referral rate
- Average Lifetime Value (LTV) of a customer
- Customer Acquisition Cost (ACT)
- New customers are as a result of existing customers (viral coefficient)
- Net Promoter Score (NPS)

The outcomes from the “measure” step will “learn” the entrepreneur if significant progress has been made in order to “persevere” or “pivot”. Pivot does not just mean change, it refers to a fundamental change in either the product, business model and/or engine of growth. Pivots can come in many different forms:

- Zoom-in pivot – Single feature of product becomes the whole product
- Zoom-out pivot – Whole product becomes a single feature of a larger product
- Customer segment pivot – Product solves a problem but not for the intended audience
- Customer need pivot – While getting to know customers well, a bigger problem to solve is found
- Platform pivot – Changing the vehicle how products are delivered or interaction with customer occur
- Business architecture pivot – Change from High margin, Low volume to Low margin, High volume
- Channel pivot – Changing the sales or distribution channels for the product
- Value capture pivot
- Engine of growth pivot
- Technology pivot

The Lean Startup suggests that in order to accelerate start-ups through the Build-Measure-Learn feedback loop they need to only focus on three **engines of growth**:

- Sticky growth engine – Long term customers with a very low attrition rate. The “freemium” model is often used here to acquire customers for free and then convert them into paying customers
- Viral growth engine – Your product advertises itself and your customers will do your marketing. The business depends on existing customers to attract new customers
- Paid engine of growth – Buying your customers through sponsored search and other online advertising methodologies. In order for the business to be successful the lifetime value (LTV) of customers is greater than the acquisition cost of customer (CAC)

Interview guidelines / questions

#	Questions guidelines
1.	**Introduction**
	Please tell us a little about yourself? Name, age, qualifications, employment history
	What is your role (owner, MD, general manager) in the company?
	How old is your company? What year was your company founded?
	In which sector is your company?
	How many employees?
	Can you indicate turnover per year?
	What made you decide to open a mass or specialised online store?
	Who would you say is your biggest competition and what do you think they're doing well?
	Have you read the Lean Startup book?
2.	**Vision – Validated Learning and Business plans**
	What research did you conduct prior to starting your business?
	What was your start-up hypothesis?
	Did you perform experiments with products as you started up?
	Was your first product an experiment?
	How did you test your start-up vision with customers?
	How long did it take you from the idea to implementation?
	Did you follow a "just do it", "lean planning" or a formal well planned approach?
	Have you ever heard of the business model canvas and did you use it to test your hypothesis? - Key partners- Their suppliers, resources - Key activities - Key resources - Value propositions - Customer Relationships - Channels - Customer Segment - Cost structure - Revenue Streams

	Did you compile a business plan? If so, how detailed was it? For what purposes did you use it?
	How do you get customer feedback?
	What do you do with the feedback from customers?
	What enhancements/changes did you make based on the feedback from customers?
	How often do you get customer feedback?
	How much priority do you place on customer feedback?
	How long does it take to implement changes received from customers?
	How many mistakes did you make while starting-up your business?
	How did you correct these mistakes?
	What would you have done different if you had to start today?
	What lessons did you learn since starting your business?
3.a	**Steering – Build – Minimum Viable Product**
	Did you make use of a MVP (online marketplace, explainer video, landing page, wizard of oz, concierge – manual service)
	Did your MVP consist of only one unique simple feature?
	Did you make use of fund raising website like kickstarter, IndieGoGo or RocketHub?
	Did you make use of an online marketplace like BidOrBuy to start-up? If so who and why?
	Do you still use online market places or only your own website? If so, why?
	What made you decide to create your own website as oppose to continuing an online marketplace?
	Are you attempting to create an online brand?
	How many products/services did you initially sell online?
	How many products/services do you sell now online?
	Were your products/services in prototype or final stage (wizard of oz OR concierge) when you started selling it?
	Do you also have a physical store (multi channel)? What was first, the online or physical store? What's the ratio? Which has been the best performer? What was the reason for also creating a physical store?
	Who develops and maintains your online website?
	What development methodology is applied in developing and enhancements?

	Is it small frequent releases or large infrequent releases?
3.b	**Steering – Measure – General**
	How do you measure the success of your e-retail business?
	How did you measure the success of your e-retail business when you started-up?
	How did you measure the success of your e-retail business now?
	How do you know increases in your measurements are as a result from enhancements/changes implemented?
3.c	**Steering – Measure – Actionable Metrics**
	Did you perform cohort/split testing with different versions of products/services?
	Did you perform cohort/split testing in order to determine which products to sell?
	Did you perform cohort/split testing in order to determine your target customer?
	Did you perform cohort/split testing on your pricing of products/services?
	Did you perform cohort/split testing on your website functionality and payment mechanisms?
	Did you perform cohort/split testing on your website online image?
	Did you perform marketing/promotional cohort/split testing?
3.d	**Steering – Measure – Innovation Accounting**
	What was your leap of faith assumptions when you started your online business?
	Do you measure your new customer acquisition rate?
	Do you measure your customer retention rate?
	Do you measure your customer attrition rate?
	Do you measure your customer referral rate or Net Promoter Score (NPS)?
	Do you know the average Lifetime Value (LTV) of a customer?
	Do you know the average Customer Acquisition Cost (ACT)?
	Do you measure how many new customers are as a result of existing customers (viral coefficient)?
3.e	**Steering – Learn – Persevere / Pivot**
	Do you persevere/discontinue products/services with low measurements?
	Have you ever performed any of the following pivots in your business: - Zoom-in pivot – Single feature of product becomes the whole product - Zoom-out pivot – Whole product becomes a single feature of a larger

	product - Customer segment pivot – Product solves a problem but not for the intended audience - Customer need pivot – While getting to know customers well, a bigger problem to solve is found - Platform pivot – Changing the vehicle how products are delivered or interaction with customer occur - Business architecture pivot – Change from High margin, Low volume to Low margin, High volume - Channel pivot – Changing the sales or distribution channels for the product - Value capture pivot - Engine of growth pivot - Technology pivot
4.	**Accelerate – Engines of growth**
	Which products/services are your best sellers?
	What type of customers are your best supporters?
	Does your business rely on long term customers with a very low attrition rate?
	Do you rely on push or pull techniques to sell your products?
	Do you make use of the “freemium” model which suggests you acquire customers for free and then convert them into paying customers?
	Do your products/services sell themselves?
	Do you rely on customers to do your marketing (word-of-mouth)?
	Is your viral coefficient greater than one?
	Do you buy customers through sponsored search and other online advertising methodologies?
	Is your LTV greater than your CAC?