

A BUSINESS DESIGN FOR THE START-UP COMPANY OF SHEPHERD LIFE

by

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Executive Summary

Your life is your message to the world, make sure it is remembered. The undeniable fact of life is death. The only problem is that very few people are financially prepared for it. Death generally comes unexpected, and with this comes unexpected expenses. All reasonably responsible people will ensure that in the event of passing away, that adequate provision is made to pay for his or her funeral.

Inequality and extreme poverty in South Africa necessitates a product that will eliminate fraud and exploitation of customers. Shepherd Life aims to provide a funeral policy product to a niche target market that will support the ethical norms of the founders. The niche target market includes all South African citizens dependent on a social grant. The product will be superior in quality and innovation with the lowest possible premium in the market.

This project has one main objective which is to develop a well-defined business plan for Shepherd Life. This objective was divided into two specific deliverables. The first deliverable is the development of a business model for Shepherd Life that will support the strategy and objectives of the company. The second deliverable is the design of a tablet application that supports the business model. A literature study was done to gain an understanding of all the techniques available to design, evaluate and validate a business model, a financial model and a tablet application.

Using these techniques studied in the literature review two business models were developed and compared using a business model canvas and a financial analysis. The target market, industry and competitors of Shepherd Life were studied comprehensively. The models were evaluated using an analytical hierarchy process and the optimal model was chosen. The tablet design was done by developing context data models, detailed entity relationship diagrams, context data flow diagrams and screen mock-ups. All of these techniques assisted the technical design team of Shepherd Life to develop the application.

Shepherd Life implemented the proposed business model and tablet solution. After implementation a SWOT assessment as well as an objective compliance check to validate the business model was done. To validate the tablet design a questionnaire was distributed and completed by all agents and team leaders of Shepherd Life and finally analysed. An objective compliance check was also done for the tablet design.

Shepherd Life aims to deliver a state of the art product while at the same time supporting the niche target market the company operates in. Helping the underprivileged and eliminating fraud from the industry will help make South Africa a better country with each funeral policy sold.

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1. Introduction and background

1.1 Background to Shepherd Life

Shepherd Life is a privately owned company that was established during 2014 and is based on the business implemented by the same owners in the early 2000's in a different company. This previously owned company was subsequently sold to one of the big financial institutions.

The business idea of Shepherd Life was born out of this previous experiences in the funeral policy industry but with the aim to eliminate the cumbersome paper process utilised in the previous business and in similar businesses. The focus of the business is twofold. The first focus is the development of a tablet application that enable agents to sell funeral policies without the erroneous paperwork that normally forms part of such a sales cycle as well as optimising the processing of claims that will result in the timeously resolution and payment of claims. The second focus is to establish a sales organisation that sells funeral policies in the identified target market.

1.2 Motivation for company idea

Inequality and extreme poverty necessitates a product that will eliminate fraud and exploitation of customers. Shepherd Life aims to provide a product that will support the ethical norms of the founders. The product will be superior in quality with the lowest possible premium in the market.

Shepherd Life is the first company that sells funeral policy products electronically, without filling out any application forms. This was done by utilising tablet devices with an application designed for collaboration with the client. By making use of a tablet it is very easy for the agent to capture all the applicants' information, take photos of the applicant as well as the identification document (ID) of the applicant and voice recordings of the applicant acknowledging the terms and conditions as required and governed by the Financial Services Board (FSB). Once all the information is captured it is transmitted electronically to the Shepherd Life member database for processing by the head office. The tablet is also used in a similar fashion in the event of a death claim. The agent should be contacted immediately because the agent will assist with the complete claims process. Once the claim is registered on the tablet all the supported documents like the death certificate, beneficiary ID and banking details are captured. The agent submits the complete claim data that includes the scanned documents to the Shepherd Life head office from where the claim will be processed and paid electronically.

1.3 Metrics of Shepherd Life

Analysis of the previous company

The previous company, which was operated by the same owners, was evaluated from a financial perspective in order to gain an understanding of various aspects of the business under development.

The statistics taken over a period of 12 months are shown in Table 1 to 3 for each age group. The results are divided into three separate tables. Table 1 compares the revenue of the company with the number of claims processed in the same period for the main members or main policy holders. Table 2 shows the same comparison but for the dependents of the main members. Table 3 is a summary of the financial performance.

Table 1: Revenue vs. claims of the main members.

Age Group	0 - 69		70 - 79		80		Total Income	Total Claim
Month	Income	Claim	Income	Claim	Income	Claim		
Oct	R 4 112 285	R 2 192 024	R 2 975 560	R 1 253 077	R 720 480	R 573 027	R 7 808 325	R 4 018 128
Nov	R 4 869 045	R 2 436 958	R 3 687 230	R 1 388 549	R 950 620	R 691 507	R 9 506 895	R 4 517 014
Dec	R 4 585 265	R 1 967 979	R 3 278 410	R 1 125 100	R 813 570	R 54 986	R 8 677 245	R 3 148 065
Jan	R 4 971 510	R 2 344 658	R 3 462 910	R 1 267 811	R 892 290	R 669 330	R 9 326 710	R 4 281 799
Feb	R 4 665 282	R 2 596 870	R 3 186 550	R 1 476 134	R 826 350	R 580 180	R 8 678 182	R 4 653 184
Mar	R 4 714 147	R 1 942 269	R 3 200 090	R 1 311 617	R 828 130	R 551 496	R 8 742 367	R 3 805 382
Apr	R 4 708 960	R 2 308 309	R 3 237 040	R 1 314 894	R 835 330	R 505 218	R 8 781 330	R 4 128 421
May	R 4 975 210	R 2 481 051	R 3 328 010	R 1 368 642	R 861 150	R 663 041	R 9 164 370	R 4 512 734
Jun	R 4 592 870	R 2 528 319	R 3 031 070	R 1 536 590	R 788 640	R 746 739	R 8 412 580	R 4 811 648
Jul	R 4 681 950	R 3 092 145	R 3 064 540	R 1 782 477	R 801 740	R 815 265	R 8 548 230	R 5 689 887
Aug	R 4 660 050	R 3 433 618	R 3 032 560	R 2 120 696	R 797 400	R 20 000	R 8 490 010	R 5 574 314
Sep	R 5 125 230	R 3 071 955	R 3 233 780	R 1 796 086	R 854 360	R 805 720	R 9 213 370	R 5 673 761
Oct	R 5 166 260	R 2 450 708	R 3 212 840	R 1 410 808	R 853 960	R 636 048	R 9 233 060	R 4 497 564
Grand Total	R 61 828 064	R 32 846 863	R 41 930 590	R 19 152 481	R 10 824 020	R 7 312 557	R 114 582 674	R 59 311 901

Table 2: Revenue versus claim (dependents).

Age Group	0 - 21		22 - 25		26 - 44		45 - 60		60		Total Income	Total Claim
Month	Income	Claim	Income	Claim	Income	Claim	Income	Claim	Income	Claim		
Oct	R 337 092	R 20 250	R 10 000	R -	R 20	R -	R 5 980	R 250	R 20	R -	R 353 112	R 20 500
Nov	R 434 932	R 17 500	R 12 390	R 500	R 20	R -	R 8 400	R -	R 20	R -	R 455 762	R 18 000
Dec	R 439 913	R 12 000	R 13 270	R -	R 20		R 9 600	R 250	R 20	R -	R 462 823	R 12 250
Jan	R 85 960	R 16 500	R 2 590	R -	R 10	R -	R 1 310	R 4 250	R -	R -	R 89 870	R 20 750
Feb	R 349 415	R 10 250	R 10 580	R -	R 30	R -	R 6 900	R -	R 20	R -	R 366 945	R 10 250
Mar	R 375 515	R 16 000	R 11 250	R 6 000	R 30		R 7 400	R 2 000	R 20		R 394 215	R 24 000
Apr	R 390 910	R 16 750	R 11 340	R 4 000	R 30	R -	R 7 680	R 2 000	R 20	R -	R 409 980	R 22 750
May	R 418 970	R 22 500	R 12 090	R -	R 30	R -	R 8 050	R 200	R 20	R -	R 439 160	R 22 700
Jun	R 392 480	R 24 750	R 11 080	R -	R 30	R -	R 7 160	R 6 000	R 20	R -	R 410 770	R 30 750
Jul	R 417 550	R 15 250	R 11 350	R 4 000	R 30	R -	R 7 490	R -	R 20	R -	R 436 440	R 19 250
Aug	R 440 347	R -	R 11 917	R -	R 30	R 250	R 7 770	R -	R 20	R -	R 460 084	R 250
Sep	R 513 987	R 8 000	R 14 287	R 4 000	R 60	R -	R 8 590	R -	R 30	R -	R 536 954	R 12 000
Oct	R 515 180	R 13 000	R 13 600	R -	R 40	R -	R 9 050	R 2 000	R 20	R -	R 537 890	R 15 000
Grand Total	R 5 112 251	R 192 750	R 145 744	R 18 500	R 380	R 250	R 95 380	R 16 950	R 250	R -	R 5 354 005	R 228 450

Table 3: Summation income statement previous company.

	Main members (Rm)	Dependents (Rm)
Total Revenue	R 114.0	R 5.3
Total claims	R 59.0	R 0.2
Gross profit	R 55.0	R 5.1
Expenses (Sales agents)	R 29.0	R 0.4
Admin Fee of 5%	R 5.7	R 0.3
Nett Profit	R 20.3	R 4.4

During the evaluation of the results achieved in the previous company it was realised that it was a very profitable company. Although this was a few years back and the existing client base was sold and transferred to the purchaser, it still provides a good framework of what to expect from Shepherd Life.

1.4 The importance of funeral policies in South Africa

The undeniable fact of life is death. The only problem is that very few people are financially prepared for it. Death generally comes unexpected, and with this comes unexpected expenses. All reasonably responsible people will ensure that in the event of passing away, that adequate provision is made to pay for his or her funeral.

Funerals are expensive events, especially in South Africa. A study was done amongst black households in the KwaZulu-Natal region. In depth interviews were held with twelve households, ten of whom had recently been involved in the funeral of a relative. The study reports that the average expenditure on a funeral was 15 times the monthly household income (Ibem, 2009).

The question that one should ask is why so much money is spent on a funeral? Funerals are of great cultural importance in South Africa. Traditional beliefs hold that the spirits of the dead can influence the living and must be treated with respect. Relatives will travel far to attend a funeral and the cost of catering for them for several days can be substantial. In South Africa, and especially in traditional families and community life, the importance of funerals appear to be ahead of births, graduations and weddings (Ibem, 2009).

1.5 Project aim

This project has one main objective which is to develop a well-defined business plan with the goal to implement Shepherd Life. This was divided in to two specific deliverables. The first deliverable is the development of a business model for Shepherd Life that will support the strategy and objectives of the company. The second deliverable is the design of a tablet application that supports the business model. To deliver a successful business plan it is important to keep the objectives, as provided by the project sponsor, in mind throughout the solutions process. The objectives discussed by the student and the project sponsor can be seen in Table 4 below. These objectives were used throughout the entire project to ensure that the final designs complied to and supported the set objectives.

Table 4: Objectives to ensure success of the deliverables.

Objectives
Business design
There should be a well defined business strategy.
The business design should consider all external factors influencing the business.
Different business models should be designed and compared to ultimately choose the optimal one.
The business design should illustrate that the business creates value by improving the standard of living of employees, considering the remuneration models.
The business design should deliver a profit.
The business design should prove to be sustainable.
The business design should be different and unique from its competitors.
Tablet design
A tablet design should be completed successfully.
The design techniques should improve efficiency of developers in the development of the tablet application.
The tablet should support all necessary business requirements.
Implementation
The business design developed should be implemented by Shepherd Life
Policies should be sold.
A satisfying work environment should be created.
Customers should be satisfied with the products.
Policies sold should increase.

Table 4 will be validated in the business model validation phase to ensure that the final solution complies with the initial objectives.

1.6 Project framework

The project framework provides a detailed step by step process that was followed throughout the entire project in Figure 1. To avoid confusion between the business model and the tablet application all processes that relates to the business model are documented in blue and all the processes that relates to the tablet are documented in grey.

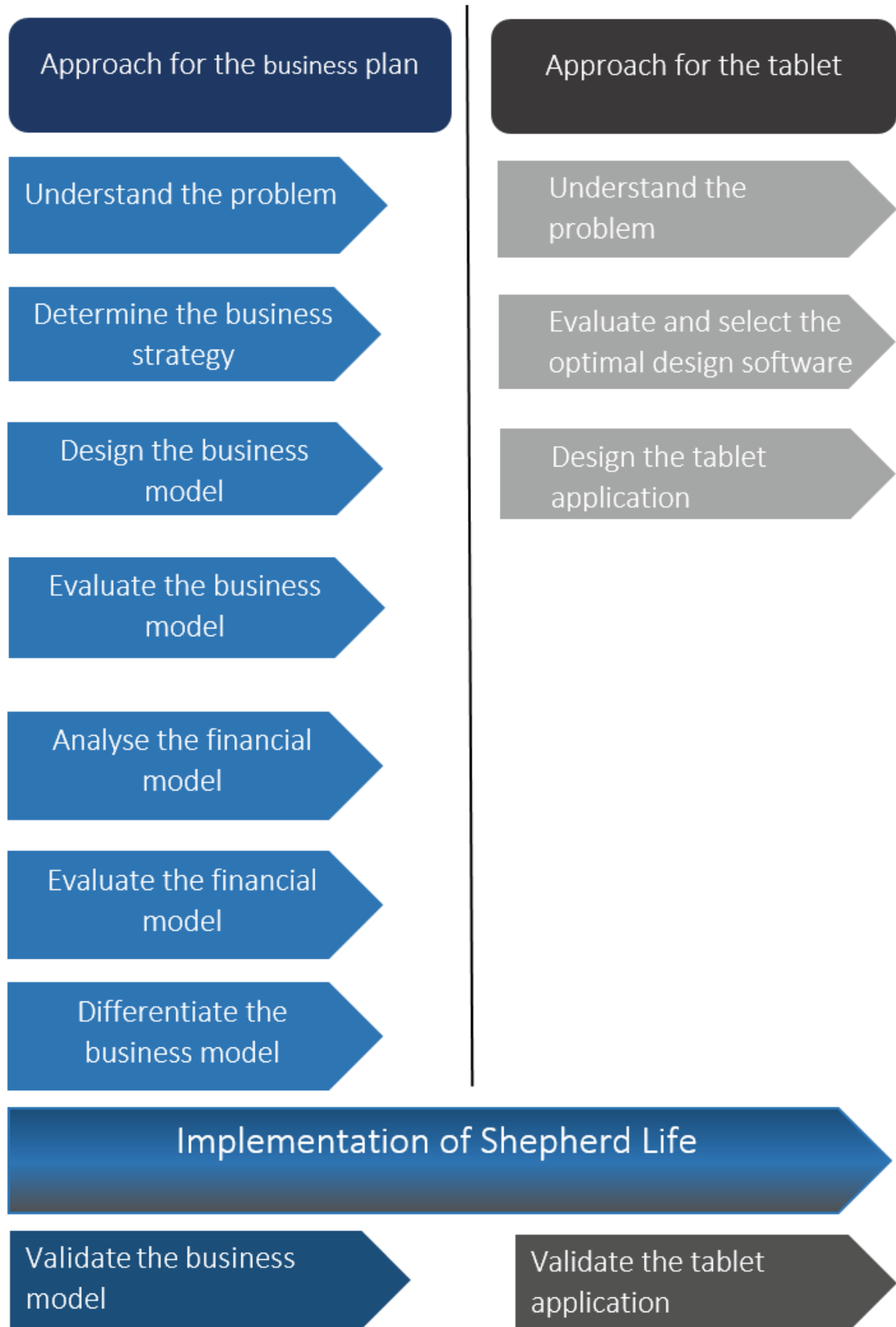


Figure 1: Overview of the project framework.

2. Literature study

The literature study is an integral part of any project. It can be explained as a systematic explicit and reproducible method for identifying, evaluating and synthesizing the existing body of completed and recorded work done by other researchers in the past (Nichols, 2015).

In order to gain the best understanding of the approach that was followed for this project, the literature study was divided into two important sections:

2.1 Approach for the development of the business model

2.1.1 Understand the problem

Workshops

Planning and running process improvement workshops

One of the most important steps in starting a new business is planning. There are many famous quotes that exaggerate on the importance of planning for example the one by Abraham Lincoln: “Give me six hours to chop down a tree and I will spend the first four sharpening the axe.” One of the important parts of planning is having a meaningful workshop with all relevant role players to ensure that everyone that is part of the project is mobilised and share the same vision.

Why workshops are considered to be important

A workshop is an efficient method used to ensure that all role players involved are calibrated and understand what needs to be done and how it should be done. A well-structured workshop can eliminate lost time spent on unnecessary activities and rework as a result of a lack of understanding. It allows different group members to be involved and sets a clear vision to ensure that everyone is properly briefed on with what is expected from them (Reid, 2015).

Common mistakes made in workshops

Workshops can often produce undesired outputs because of common mistakes made. Common mistakes made include:

- Forcing and dictating the proposed outcome, commonly referred to as the “to-be process”. An experienced process consultant will facilitate the to-be process but never dictate to the group what that process should be. The facilitator should provide guidance only. This will ensure more innovative thinking.
- Over planning.
Workshops are not difficult and should therefore not be overcomplicated. It is a natural process, so when properly structured it will almost guarantee a positive outcome. Create a task list with all the workshops listed, the dates and times when the workshop will be run, the attendees as well as the purpose of each workshop (Reid, 2015).

- Not providing sufficient time for the workshop.
Ensure that there is enough time to cover every important aspect. Don't leave with any unanswered questions or any uncertainties (Reid, 2015).

Planning the workshop

There are a few crucial steps to follow when planning the workshop to ensure that everything runs smoothly and efficiently. This is minor details but has a huge impact on the success and outcome of the workshop.

- Pick the workshop room carefully.
- Identify all members involved with the process that should participate in the workshop.
- Invite the right attendees.
- Arrange the facilities and supporting materials.
- Schedule the workshop well in advance.
- Have a task list in the form of a spreadsheet ready.
- Prepare the room beforehand with enough place to write for example white boards or paper stuck to the wall (Reid, 2015).

Running the workshop

A typical agenda of a 2 day workshop should be as follows:

- Day 1: Evaluation and analysis of the current state of the business.
 - Describe the reason for the workshop and explain the reason why people are invited.
 - Define the scope that will be covered.
 - Define the expected outcomes.
 - Define current state.
 - Add diagnostic information.
 - Conclusion and wrap up.
- Day 2: Improving the process.
 - Revisit the discussions from the first session.
 - Innovation brainstorming.
 - Identify items that can be eliminated or improved upon.
 - Conclusion and final wrap up (Reid, 2015).

This is only a brief explanation of items and activities that are important when planning and running process improvement workshops. All businesses are unique but applying these guidelines and tailoring it accordingly will ensure efficient workshops that add a lot of value and save a lot of time (Reid, 2015).

2.1.2 Determining the business strategy

Business strategy defined

When designing a new business or improving an existing business it is important not to only focus on the business holistically, but also to focus on each detail area separately. Shepherd Life will be modelled and designed by making use of a top-down approach including all the elements of the overall business strategy. Different business and operating models will be considered to finally choose the most optimal business design (Businesscasestudies.co.uk, 2015).

Before the implementation of a new business it needs a well-planned, in depth business strategy. A business strategy is a focussed business game plan that will ensure success of the organisation. The business is where it is and a sound strategy will ensure that the business will end up where the stakeholders want it to be. A good strategy helps the organisation to achieve the desired goals by directing the available resources in order to gain a sustainable competitive advantage over the competition (Businesscasestudies.co.uk, 2015).

In order to develop the best possible business strategy a customer, industry and competitor analysis was done.

Customer, industry and competitor analysis

To develop the optimal business strategy it is of utmost importance to understand the potential customer base, the relevant industry the business will operate in and the competition the business will be faced with. Without a detailed understanding of all three of these factors it will be impossible to develop a well-structured strategy that will maximise profitability.

The first step is customer analysis. This step is aimed at understanding the target market, their needs and what their expectations are. This report makes use of two techniques that assisted to break down and analyse the customer group. The tools that are widely used are:

- Demographic Analysis (DA).
- Psychographic segmentation.

After fully understanding the customer base the business is dealing with, the focus should move to identify and understand the industry the business will operate in. This literature study review the use of techniques or instruments that ensure an in depth understanding of the industry.

These instruments are:

- The PESTEL analysis.
- Porters 5 forces.

Finally it is important to know and understand the competition the company will have to take into account. The better the competition is analysed the better the chances are that the business will be able to deal with the threats that the competition holds for the business as well as the opportunities that might exist as a result of weaknesses identified in the competitor strategy.

The customer

A lot of emphasis should be put on the definition and the understanding of the specific target market.

Customer analysis segmentation

Demographic Analysis (DA)

DA is a specific technique used in order to understand the change of the composition of the target market in terms of age distribution, race distribution and sex distribution of a population group as a result of changes in the birth rate and death rate over time. Another factor that should be included in the analysis are changes because of urbanisation (Census.gov, 2015).

Psychographic segmentation

The target market should be analysed using psychographic segmentation that includes criteria like lifestyles, personality, value systems as well as specific interests. This segmentation enables the company to better develop and market the product or service because of a more precise match between the product and what each segment requires from the product offering (Study.com, 2015).

The industry

PESTEL Analysis

The PESTEL analysis, demonstrated in Figure 2, is a technique used to evaluate the external, macro environment factors that has an impact on the organisation. This analysis ensures that the business identifies and understands the potential long term implications that these macro environment factors can and will have on the organisation (Anon, 2015).

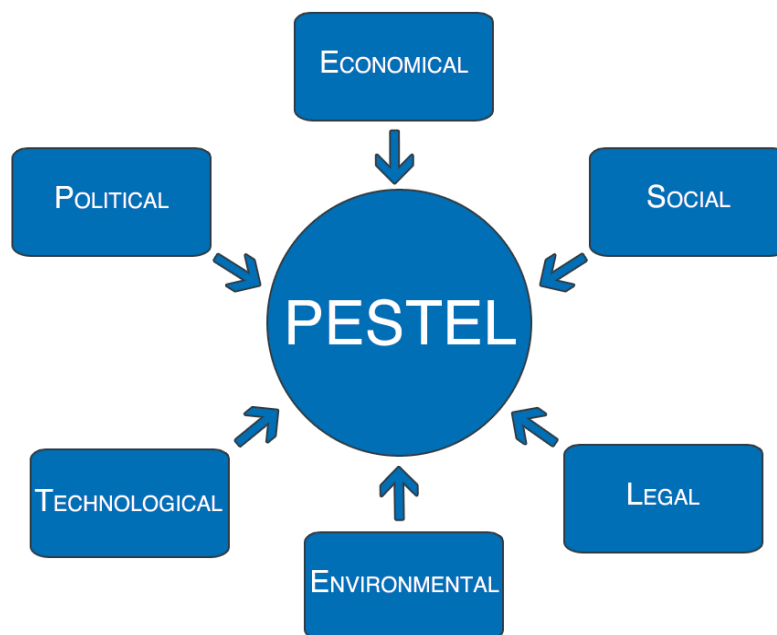


Figure 2: PESTEL analysis graphical presentation (Anon, 2015).

Political

These influences refer to the stability of the political environment. The level of economical intervention by government can play a critical role in the feasibility of a company. Some of the factors worthy of notice are labour laws, tax policies (both internal tax policies but also import duties and incentives), the political stability or instability in overseas markets as well as government focus on and involvement in trading agreements. Businesses must be agile and have the ability to comply with the current legislation and be able to adapt to changes in the legislation. It must be possible to change marketing strategies and policies to comply with all the potential political influences (Academy, 2015); (Oxlearn.com, 2015).

Economic

A detailed analysis and understanding of the economic factors like economic growth, unemployment rates, interest rates, exchange rates and GDP growth rates will enable a business to understand the impact these factors can have on the profitability and sustainability of the business. A business should be able to change its operating model when changes of these factors can negatively impact on the business. Micro-economic as well as macro-economic factors should be considered (Academy, 2015).

Socio-cultural

These factors take the shared belief and the culture of the people that the organisation conduct business in, into consideration. These factors include career attitudes, Gini coefficient which is the degree which income and wealth distribution deviates from an equal distribution, level of education, living conditions, demographics, as well as age distribution. Understanding these factors will allow a business to understand how the client base is influenced and with these, an organisation can understand how consumer needs are formed and what will influence them to participate in the economy (Academy, 2015).

Technological

These factors include the technological landscape, changes in internet and mobile utilisation for participating in electronic purchasing transactions. The investment by government on research compared to new technological inventions are also assessed. Marketing strategies and initiatives are impacted on by these factors. Different and innovative ways of producing and distributing products and services must be evaluated and alternative ways to collaborate with the target market must be developed (Academy, 2015).

Environmental

It is important to consider the impacts that the product or service will have on the environment. The main reason for the increase in awareness is the reality that raw materials are becoming more difficult to obtain as the sources are depleted faster than what can be produced. More emphasis has been placed on environmental laws and the compliance with anti-pollution regulations. More focus is placed on recycling of waste and green or eco-friendly manufacturing practices and products. Moving away from paper is one of the areas that is focussed on in this project (Academy, 2015).

Legal

The factors focus on consumer protection laws and consumer rights, patent and copyright laws, economic empowerment of previously disadvantaged people and also product safety. It is clear that organisations need to understand how to trade within the legal framework (Academy, 2015).

It is clear from all the literature that understanding the external factors is of utmost importance to be able to successfully conduct business in South Africa. The PESTEL analysis will be used to ensure a clear understanding of all the external factors that will or can influence the business strategy of Shepherd Life. It will be used to assess the potential of accessing the new market. It will provide the opportunity to tackle all possible threats before they become a reality for the organisation. Addressing possible threads pro-actively instead of re-actively can have enormous positive results for the organisation.

Porters Five Forces Analysis



Figure 3: Porters five forces (Porter, 2008).

One of the most important aspects when planning the specific strategy of any organisation is to fully understand and cope with the competition. It often happens that competition is defined too narrowly, and that it only exists between direct competitors known today. In reality competition includes five important forces namely: existing competitive service providers, suppliers, customers, new potential entrants and alternative products or services, as can be seen in Figure 3 (Porter, 2008).

Although there are many factors that can influence the profitability of an organisation, understanding the five forces mentioned will position the business for guaranteed high levels of profitability in the medium and long run. These forces are better known as Porter's Five Forces. This is powerful as it will enable the business to understand the strength of its existing competitiveness as well as the nature of

competitiveness in a different or future strategy. With a clear understanding of these forces the business can improve a situation of weakness, capitalise on a position of strength and avoid taking wrong decisions (Porter, 2008).

The five forces can be explained as follows:

Threat of entry

New participants in the market will increase the level of competition and also decrease profitability for existing companies. They bring additional competitive products and a drive to increase its market share. The threat of entry into the marketplace puts a limit on the profit potential of an industry. It is important to understand that it is the threat that limits the profitability and not the actual entry into the market itself. Threat of entry depends on the magnitude of the entry barriers and on the reaction from existing businesses that is expected. According to the literature there are seven major entry barriers to consider. Some of the barriers that are applicable and worth mentioning are:

- Supply-side economies of scale.
The potential of decreased costs per unit when larger volumes are produced or made available in the market. Higher volumes can spread fixed costs over more units or employ technology more efficiently. This means that the new business must enter the market with volumes or accept that the products will have to be supplied at a higher cost (Jurevicious, 2015); (Porter, 2008).
- Demand-side benefits of scale.
This barrier will manifest where the enthusiasm to pay for a product increases as the number of customers increase. This will discourage entry because of the limited willingness of customers to buy from a new entrant into the market (Jurevicious, 2015); (Porter, 2008).
- Capital requirements.
The need to invest large amounts of money to be able to compete in the marketplace can limit the number of potential new competitive businesses (Jurevicious, 2015); (Porter, 2008).
- Customer switching cost.
Switching costs refers to the additional costs that customers will have to incur when suppliers are changed. Willingness to change to a new supplier will decrease as the cost to change increases (Jurevicious, 2015); (Porter, 2008).
- Unequal access to distribution channels.
New competitive businesses might not have a known brand or footprint and therefore will not have the same access to the potential customer base (Jurevicious, 2015); (Porter, 2008).
- Restrictive government policies.
Government policies can either inhibit or support new entry into the market and can also impact on the extent and nature of the other barriers (Jurevicious, 2015); (Porter, 2008).

The bargaining power of suppliers

Suppliers can determine and influence the price as well as the terms of their products if there are more buyers than what can be supplied. Organisations generally depend on a number of different supplier groups for their supplies in order to minimise the effect of the suppliers. A supplier group can be very powerful in the case where changing suppliers leads to great extra costs or if there are very little substitutes available for the products that the supplier provides (Porter, 2008).

The bargaining power of buyers

This power refers to powerful customers and the pressure that these customers have on businesses for high quality products and services at lower prices. The power of buyers or consumers increase when there are too many suppliers and very few buyers or where the product can be changed easily with a substitute because of the lack of differentiation (Porter, 2008).

The threat of substitutes

Alternative products that the customer can choose provides a threat to any business. There are always substitute products but can be disguised from the consumer as they may appear to be very different. A high threat of substitutes can negatively impact the profitability of the business because it creates a price ceiling. The threat of alternative products is increased if the competition can offer a convincing price-performance trade-off to the existing products or if the relative cost of moving to the alternative product is low (Jurevicius, 2015); (Porter, 2008).

Rivalry among existing competitors

“Rivalry is especially destructive to profitability if it gravitates solely to price because price competition transfers profits directly from an industry to its customers” –Michael Porter.

The last force is the intensity of competitive rivalry and is an important barometer to measure the competitiveness of the industry for most businesses. There is a definitive link to the other four forces discussed earlier. If it is easy to access an industry or it is easy for customers to choose an alternative product or products it can be assumed that competitive rivalry is likely to be high. Infighting amongst existing competitors will manifest in various forms for example price discounting and the introduction of new or alternative products. More aggressive marketing tactics can also be introduced.

The fierceness of rivalry amongst competitors is high when businesses are of similar size and power, if exit barriers are high, if the growth in the industry is low or if businesses are highly competitive (Jurevicius, 2015); (Porter, 2008).

Using the model

After an in depth understanding is gained of all five factors it is important to turn these forces into an effective tool. To accomplish this real data should be used in order to return objective results. These important forces explained by Porter was analysed in the context of Shepherd Life. It helped to identify the potential profits, identify possible competitors, improve the competitive advantage of the company and also helped to anticipate possible changes and disruptions in the future (Jurevicius, 2015); (Porter, 2008).

The competitor

Understanding your competition

Knowing and understanding your competition is very important when considering the success of any business. Competition exists everywhere even when offering something unique or filling a gap in the market. It is important to identify the weaknesses and strengths of the competitors and ensure that you know what the reasons will be for the customer to choose one product or service over another (Small Business BC, 2011).

There are two kinds of competition, direct competition and indirect competition. Direct competitors compete by selling the same products and indirect competitors compete for the same market (Small Business BC, 2011).

A study was done concerning the top four competitors of Shepherd Life. These competitors are:

1. Hollard.
2. Doves.
3. Assupol.
4. Avbob.

2.1.3 Designing the business model

A business model can simply be described as a collection of assumptions about how your organisation will perform when you aim to create value for all the participants on whom it depends and not just its customers. This section consists of the tools identified through research in defining the business model. The study will focus on the techniques used in other studies relating to the topic of business model development namely business model canvassing.

Business model canvas

A business model describes the foundation of how an organisation creates, delivers and captures value. It is important that the model is simplistic, relevant and understandable. The business model is the recipe for how management intend to ensure success of the organisation (Engdahl and Rensfelt, 2011).

A well-structured business model usually consists of four areas of the organisation: the product offering, the target market and customers, the infrastructure and the financial feasibility. These four areas can be further analysed by using a business model canvas as designed by Osterwalder. The business model has the main goal of creating a shared understanding of the business model throughout the organisation. Table 5 explains the nine building blocks of the business model canvas.

Table 5: Explanation of the 9 building blocks.

Building block	Explanation
Customer Segments	This building block defines the different groups of customers a business can focus on with its product offering. It is important to decide which group will be focussed on. In order to understand and focus on a group it is important to classify them in different groups with similar needs and behaviours, or other characteristics that might be common to them. The different segments into which the customers can be divided are: Mass market, niche market, diversified and segmented models (Engdahl and Rensfelt, 2011).
Value Proposition	The value proposition defines the products and services that generates value for the specific customer segments. Value can be created through any of the following elements: performance, novelty customisation, potential cost and risk reduction, accessibility, convenience and usability (Engdahl and Rensfelt, 2011).
Channel	The means by which the organisation delivers the value to customers is through distribution, sales and communication. Channels are customer touch points and play an important role in the experience perceived by the customer. There are five important channel phases. They are sensitising, evaluation, acquisition, delivery and after sales service. It is imperative to find the correct balance between these different channels and to utilise and balance the channels in order to maximise the customer experience (Engdahl and Rensfelt, 2011).
Customer Relationship	The type of relationship that the organisation has with the customer can vary from personal interaction to automated relationships and will directly impact on the customer experience. These relationships with the customers can vary from personal assistance, self-service (in the form of self-help terminals or kiosks), personal websites and other automated services through to a dedicated and targeted personal sales experience or even interaction with the customers through community forums. Several of these strategies may co-exist within a particular customer segment and is driven by different incentives for example customer retention strategies, winning new customers or boosting of sales (Engdahl and Rensfelt, 2011).
Revenue Streams	The revenue stream represents the cash generated from each customer segment. There are many ways to create revenue streams and include: Usage fee (similar to cell phone contracts), subscription fees, renting, licencing or specific products like insurance policies. These revenue streams all have different pricing strategies with a direct impact on the revenue stream (Engdahl and Rensfelt, 2011).
Key Resources	The key resources are the critical assets required to ensure that the business model will work. These resources can be people, financial or intellectual. The type of business will dictate the type of key resources required (Engdahl and Rensfelt, 2011).
Key Activities	The key activities are the activities that must be performed to implement all of these elements. These activities can be grouped into production activities, problem solving and network activities (Engdahl and Rensfelt, 2011).
Key Partnership	Key partnerships are essential to ensure a successful business model. There are four distinct types of partnerships: Strategic, joint ventures, cooperation and buyer-supplier relationships (Engdahl and Rensfelt, 2011).
Cost Structure	The cost incurred to operate a business model. Costs should always be minimised but not all organisations are necessarily mainly cost driven and it is therefore important to know if the business is more cost or value driven (Engdahl and Rensfelt, 2011).

2.1.4 Evaluating the business model

Evaluation technique

Analytical hierarchy evaluation process.

The final decision on the selection of design alternatives in many engineering applications is dependent on the evaluation of the design alternatives against a selected set of decision criteria. This evaluation is a challenging task for which the Analytic Hierarchy Process (AHP) provides an effective mechanism to accurately quantifying the appropriate data (Mann, 1995).

The approach that is followed in the AHP is a multi-criteria decision making approach. The approach caught the attention of researchers because of the nice mathematical properties that the methods provides as well as the fact that it is relatively easy to obtain the required input data. The fact that the AHP is a decision support tool that assists in solving complex decision problems adds to its popularity amongst researchers and business architects. AHP makes use of a multi-level hierarchical structure of objectives, criteria and sub-criteria. Pairwise comparisons are used to derive the relevant data.

The relative weights of importance of the decision criteria is acquired by making use of these comparisons whilst the relative performance measures of the alternatives in respect of the individual decision criteria are obtained. In cases where the comparisons are not consistent to the extent required, it provides a mechanism for improving consistency (Mann, 1995).

Each model is compared to the other for each of the 12 criteria as documented by David Weiss in his master thesis. It is demonstrated as follow: a_{ij} ($i=1,2,3,\dots,M$ and $j=1,2,3,\dots,N$) represent the performance of i against j . Where i represents the rows and j the columns (Weiss, 2014).

The relative importance of each alternative in respect of each criteria is obtained by using pairwise comparisons. Following this approach the analyst must make his opinion known about the value of one single pairwise comparison at a time (Mann, 1995).

Pairwise comparisons are measured by using a scale. The scale is a one-to-one mapping between the set of discrete linguistic choices available to the decision maker and a discrete set of numbers which represent the importance of the previous choices (Mann, 1995).

12 of the suggested 14 criteria have been identified and used in the evaluation of the different business models when using the AHP.

Explanation of the chosen criteria:

- Efficiency: Transaction efficiency that is lower, faster and has more advanced quality than the average.
- Lock in: Effective ways to motivate the customer to become a permanent customer.
- Novelty: Unique and distinctive business ideas of the organisation.
- Uniqueness: Above average profits because of differentiation from the competition.
- Fit: Scale of consistency and fit between business model elements, working together towards one goal.
- Profitability: Financial success of the business.
- Inimitability: Difficulty to replicate and copycat the business model.
- Robustness: Ability to fend of threats.
- Adaptability: How easily the business can adapt and change.
- Scalability: Serving of a large group of customers at any given time.
- Patentability: Ability to protect the business from being replicated and copied.
- Plausibility: Assumptions are made with reliable data and previous experience (Weiss, 2010).

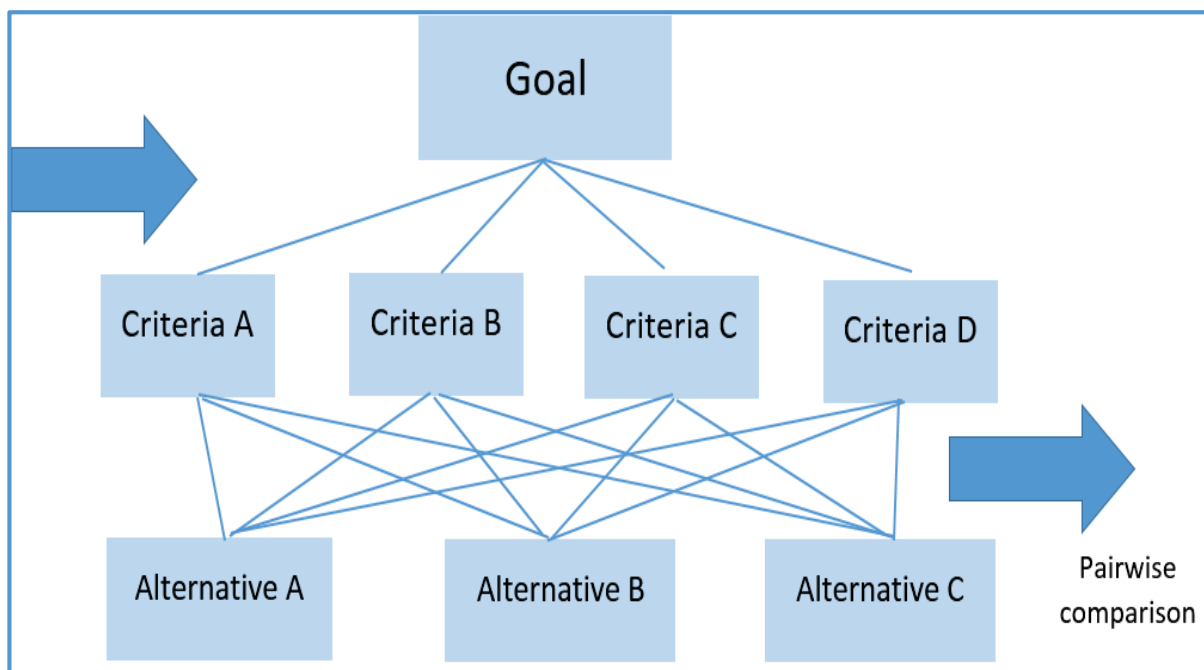


Figure 4: Hierarchy model of the analytical evaluation process.

The logic of the evaluation process (Mann 1995) is demonstrated in Figure 4. The criteria was evaluated using the 12 criteria explained above and the alternatives are the two different business models constructed for Shepherd Life named Option A and Option B.

2.1.5 Analyse the financial model

The aim of the financial model is to build an abstract representation of the real world financial situation of the business. The model performs calculations, summarises particular events and provides direction regarding possible actions and alternatives (Investopedia, 2006).

Financial analysis techniques

Sales forecast

The sales forecast done for Shepherd Life is a month-by-month forecast. Sales from previous years are commonly used as a starting point in preparation of the sales forecast but if you are starting a new company you most probably don't have any history of trading. Market research can be used do a sales forecast. Shepherd Life has the history of the company previously owned by At Boshoff and can therefore use these metrics as a guideline for the sales forecast of Shepherd life (Seal, 2011; Smallbusiness.wa.gov.au, 2015).

Income statement

Revenue model

A revenue model is a description of how a business plans to earn income based on the sales forecast and ultimately produce profits. A revenue model can be very handy in a business for medium and long term projections of a company's profitability potential (BusinessDictionary.com, 2015).

Expenses

Expenses of a company can be explained as all the costs incurred through operations with the aim to earn revenue. The goal is to maximise profits by minimising expenses. Expenses associated with the main activity of the business are referred to as operating expenses and expenses associated with a peripheral activity are non- operating costs or other expenses. There are two different types of expenses namely capital and operational expenses (AccountingCoach.com, 2015).

Cash flow forecast

Cash flows

Cash flow can be explained as the difference in the amount of cash available at the beginning of a given period and the amount of cash available at the end of that period. Cash flows can typically be divided into two types namely: cash outflow and cash inflow. Cash outflow is the amount of cash that a business spends, and cash inflows is the money received as the results of the operating activities of the business (Seal, 2011). Cash flow forecasting determines how the cash inflow and outflow will result in free cash flow in the business. It is a very important metric of the business because running out of cash will result in the business becoming insolvent.

2.1.6 Evaluate the financial model

The best way to evaluate any financial model is by comparing the results of the financial analysis using spreadsheets and graphs. The financial model is evaluated by comparing both the profitability and the cash flow requirements. Graphs are used to illustrate the difference between the financial analyses of the two business models (Stephen D. Simpson, 2012).

2.1.7 Differentiating the business model selected

After the optimal business model is selected it is important to utilise the business model successfully. Methods to increase success includes value discipline ranking and the marketing mix.

Differentiating techniques

Value discipline ranking

It is crucial that companies differentiate themselves from others and a value creation strategy or value discipline, are terms used to describe ways in which companies differentiate themselves. It shapes the principal value proposition or business model of a company. A value discipline is a statement of strategic focus and enables a company to determine its corporate vision and objectives, to target its most profitable customers and to focus and align its activities. The value discipline ranking model segments customers by looking at all the benefits that are of most value to them. Specifically three generic value disciplines: operational excellence, customer intimacy and product leadership are used (2012books.lardbucket.org, 2015).

Operational excellence

This strategy persistently focusses to provide customers with reliable products or services at competitive prices and aims to deliver it with minimal inconvenience and difficulty. These companies are continuously seeking ways to minimize overhead costs, to reduce transaction costs, to eliminate intermediate production steps and to optimise business processes. They proactively design their business model focusing on their targeted customer segments and focusses on efficiency and cost. They hope to satisfy all customer needs and to ensure a larger and more integrated approach by critically re-evaluating business processes, reassessing the supply chain and reaching out to suppliers and customers (2012books.lardbucket.org, 2015).

Customer intimacy

The second value discipline, customer intimacy, focusses on segmenting and targeting markets precisely and then tailoring offerings to exactly match the demands of those niches. This discipline combines detailed knowledge about customers with operational flexibility ensuring quick response to

customer needs and as a result these companies create incredible customer loyalty. The focus of this discipline is to continuously pursue a strategy of customer intimacy and consequently tailoring and shaping products and services to fit a fine and precise definition of the customer. Although this can be expensive, customer intimate companies are willing to take a long term perspective and invest to build lasting customer loyalty. They look at a customer as a life time partner and value-added to the company and not as a once of transaction. Employees will at all times strive to ensure that customers get exactly what they want, when they want it and how they want it. Not all customers will generate the same amount of revenues and it is therefore important to identify which customers require what level of service to maximise profitability (2012books.lardbucket.org, 2015).

Product leadership

The final discipline refers to offering customers top quality products and outstanding services that consistently enhance the customers' use of the product. These companies are innovation driven and aim to constantly add value and better solutions. Product leaders focus on constant innovation and creativity. They encourage risk taking, experimenting and they are constantly looking for new ideas. They understand that their success depends on the speed of their capitalisation and commercialisation of new ideas and are therefore engineered for speed (2012books.lardbucket.org, 2015).

A summary of the value discipline ranking and the three generic value disciplines can be seen in Figure 5.

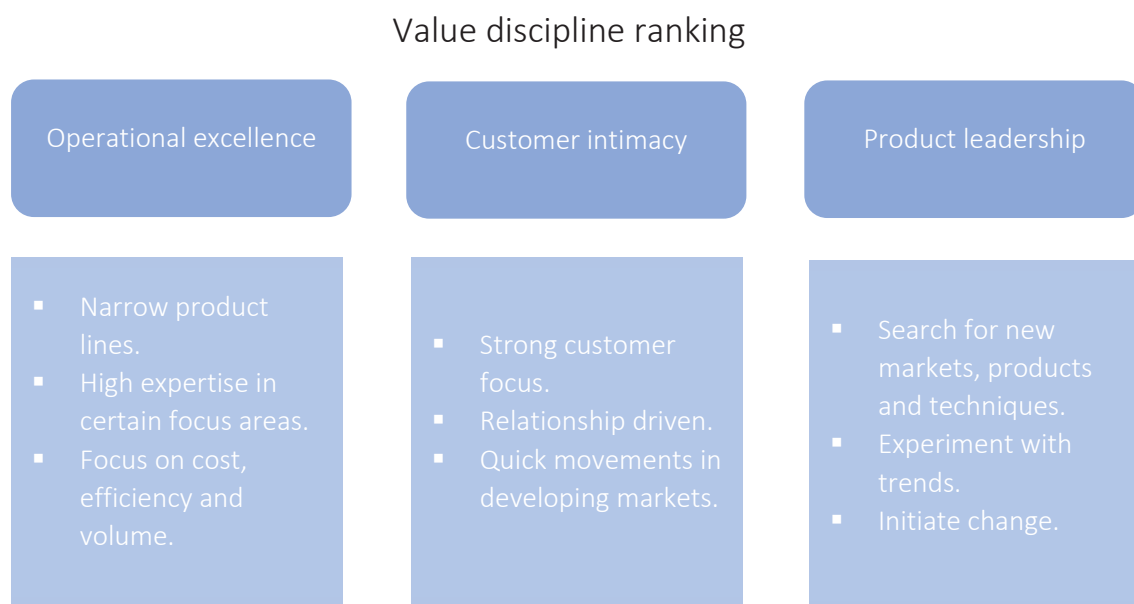


Figure 5: Value discipline ranking (2012books.lardbucket, 2015).

Differentiating the business model using the marketing mix

The marketing mix of a company includes all the actions or tactics that a company uses to advertise their product in the market. The four most important elements are price, product, promotion and place. This highlights the fact that it is crucial to deliver the right product in the right place on the right time and at the best price to the target market (Mindtools.com, 2015). These elements can be extended to include two more elements in the form of people and process.

To gain a better understanding of these different elements and to decide on the best mix of the elements it is important to answer the questions in Table 6 concerning the elements (Managementstudyguide.com, 2015).

Table 6 : The marketing mix explained (Managementstudyguide.com, 2015).

Element	Question to identify marketing mix
Price	What is the value of the product to the customer?
	How does your price compare to the price of the competitor?
	Is the customer group price sensitive?
Product	What are the expectations of the product?
	Will it satisfy the specific needs of the customer?
	How is the product branded?
	What differentiates this product from other similar products?
Promotion	How will the product be promoted?
	How does the competition advertise?
	Are advertisements crucial?
	Are there any seasonality in the market?
Place	How can customers get hold of the product?
	Where will they look for it?
	How can you access the best distribution channels?
	Will you make use of a sales force?
People	Who are the individuals involved in the sales of the product?
	Who will purchase the product?
Process	What processes and mechanisms will be used to reach the target market?
	Do you have the best possible processes?

2.1.6 Validating the business model

Validating is a crucial step and there are many different techniques to validate different solutions.

Importance of validation

- Many assumptions are made when designing and implementing a new product. Key assumptions and hypotheses needs to be validated as soon as possible.
- Validation ensures the avoidance of the most common problem in any business being wasting time and money on a product nobody wants.
- Validations forces you to get in touch with your identified target market. Understanding how they think will result in improved sales.
- Validation help to enrich business ideas in multiple ways.

Validating techniques

Compliance check of business objectives

This technique validated the degree of compliance to the original set of objectives. In the validation phase the objectives stated in Table 6 was validated using a certain grading technique, this can be seen in Table 45.

Business model SWOT assessment

The SWOT analysis is an effective method of validating the business model canvas of the final business model chosen and implemented. It is a measurement of the internal and external positive and negative aspects of the business model. A checklist was used to asses each of the nine building blocks, describing the strengths, weaknesses, opportunities and threats. Each building block was given a combined score for strengths and weaknesses (between -5 and 5). An individual score was given for opportunities (Between +5 and 0) and threats (between 0 and -5) (Engdahl and Rensfelt, 2011).

2.2 Approach for the tablet application

In the following section of the literature study knowledge was gained concerning documentation required as well as different tools and software that will be used to develop the tablet. Documenting the application will not only bridge the gap between the business and the developers but will improve efficiency of developing the application. The usability of the process modelling environment means that the business and the developers speaks the same language.

2.2.1 Understand the problem

Workshops

Workshops are explained in detail as part of the project approach for the business plan, the same techniques and structure applies for the workshops held for developing the tablet application.

2.2.2 Evaluate and select optimal design software

The most popular software was compared and a decision table was compiled to illustrate the differences between the products in Table 7 in order to ultimately select the optimal techniques.

Software to improve business communication and business processes.

This diagramming capability will add dimension to the project. Since the concepts conveyed are complex and a picture can be worth a thousand words, the right technique should be used to convert the notation into a context data flow diagrams and entity relationship diagrams. There are several examples of software that includes drawing capabilities that can be used to ensure that everybody involved will understand the results without an in depth understanding of the programming tool (Bright Hub, 2015).

Table 7: Comparing the most popular software programs.

Name of Software	Giffy&Confluence	Blueworks Live	Microsoft Visio	Bizagi	Lucidchart
Explained	Giffy is designed to make it easy and intuitive to create professional quality flowcharts and diagrams. Giffy is easy to understand and use and allows you to document processes which is easy to read for both the IT developer and the business person (Giffy.com, 2015).	IBM Blueworks Live is a cloud based business process management tool. It supports organisations in discovering, designing, and managing business processes. Blueworks live can be used to map and process BPMN accurately without the hassle of paying attention to the technical parts (IBM Business Process Manager V8.5, 2013).	With Microsoft Visio you can create professional diagrams to simplify complex information with updated shapes, collaboration tools and data-linked diagrams (Csusap.csu.edu.au, 2015).	Bizagi Suite supports the complete BPM lifecycle to make continuous improvement a reality. The Bizagi Modeller lets business experts design, document and evolve their process (cez, 2015).	Lucid chart provides a collaborative diagramming solution. It is immediately intuitive, minimising time spent on obtaining necessary skills, Their focus is on quality, security, and affordability, (Lucidchart.com, 2015).
Advantages	<ul style="list-style-type: none"> • Easy to use and understand • Extensive shape library • Sharing is simple • Collaboration is easy (Giffy.com, 2015) 	<ul style="list-style-type: none"> • Interactive • Allows automating of processes • Leads to a connected and focussed team • Improves collaboration of daily tasks • Easy to change and adapt (IBM Business Process Manager V8.5, 2013). 	<ul style="list-style-type: none"> • Standard templates increase productivity • Generalized drawing tools help customising to unique requirements • Built in templates • Included in Microsoft package (Csusap.csu.edu.au, 2015) 	<ul style="list-style-type: none"> • Overall better business agility • Improved operational efficiencies. • Shorter time to market • Compliance, (cez, 2015). 	<ul style="list-style-type: none"> • Easy to sketch and share professional diagrams. • Smooth and easy collaboration • Reusable Templates, (Lucidchart.com, 2015).
Pricing	Medium and affordable rates.	Very expensive	Included in Microsoft package	Free	Medium and affordable rates.

Software to improve business communication

After documenting the different flows and diagrams it is necessary to create screen mock-ups to demonstrate how the process should appear on the tablet screen.

A mock-up is a scale model of a design element or screen. It is used for demonstration and design purposes. It enables a better understanding of the end goal, it enables non-programmers to “draw” application screens and most importantly enables them to achieve far greater productivity. Table 8 compares two most popular software programs to create mock-up screens.

Table 8: Comparing software to develop screen mock-ups.

Name of Software	Mybalsamiq	Mockingbird
Explained	MyBalsamiq mock-ups is a graphical user interface mock-up builder application. It allows the user to arrange pre-built widgets (Balsamiq.com, 2015).	Pencil is an open source toolset that creates wireframe mock-ups of applications such as tablets or mobiles. It also has some extra built in features such as mind mapping, application flow and notes (Axure.com, 2015).
Advantages	<ul style="list-style-type: none"> – Specialised tool – Creates high level mock-ups in a non- formal “hand drawn” style – Integrative (Balsamiq.com, 2015) 	<ul style="list-style-type: none"> – Free plugin to Firefox 3 – Create mock-ups and can then export it as PNG images (Axure.com, 2015)
Pricing	Expensive but Shepherd life has a licence which will enable the student to create mock-up screens without purchasing any new software.	Free, but much more limited than Mybalsamiq.

Conclusion for software selection

These software tools were evaluated by making use of two main criteria’s namely advantages and pricing. After comparing different software it was decided by Shepherd Life that Lucid-charts will be the best possible software to use to complete all the necessary documentation.

2.2.3 Design the tablet application




Context data model

A high level representation of the entities and relationships included in the detailed entity relationship diagram but with no attributes (Bentley, Whitten and Randolph, 2007).

Detailed entity relationship diagram (ERD)

ERDs graphically represent an information system that demonstrates the relationship between entities for example people, places, objects, events or concepts within that system, (Bentley, Whitten and Randolph, 2007). The main components of an ERD are entities and the relationships that exist among them. An ERD provides a different way to analyse data. Looking at a system in more than one way will increase the understanding of the system (SearchCRM, 2015). Table 9 lists and explain the different symbols used when constructing an ERD.

Table 9: Description of the ERD symbols (SearchCRM, 2015)

ERD Symbol	Description
	Entities, which are represented by rectangles is a concept or object about which information needs to be stored. A weak entity must be defined by a foreign key relationship with another entity because it cannot be uniquely identified by its own attributes.
Attribute	A descriptive property of an entity. There are two kinds of attributes. A Key attribute is a unique, distinguishing characteristic of the entity. A multivalued attribute may have more than one value.
	Connecting lines, are represented by solid lines that connect attributes to demonstrate the relationship of the entities in the diagram.
	Cardinality. The minimum and maximum number of occurrences of one entity that may be related to a single occurrence of the other entity. Cardinality should always be defined in both directions.

Context data flow diagram (Context-DFD)

Context data flow diagrams must be constructed to establish initial project overview. This simple data flow diagram shows only the main interfaces of the flow between the system and its environment.

The context-DFD contains only one process. External agents are drawn around the perimeter. Interactions of the systems with the system boundaries and the external data stores are defined by the data flows (Bentley, Whitten and Randolph, 2007).

Screen mock-ups

A screen mock-up can be defined as a working, scale or full size demonstration of a specific design. It is most commonly used for demonstration and design evaluation (Bright Hub, 2015). Screen mock-ups is a great tool for communicating and engaging client input early on in the process.

2.2.4 Validate the tablet application

Questionnaires

Questionnaires is a very cheap validation technique, it is almost effortless and simple. It is very practical when you have a reasonably small group of respondents as in the case of Shepherd Life. It is an efficient research and validation tool that uses questions to gather information from different respondents to evaluate and hopefully improve your business. Questions can be open-ended, where the respondent must fill in his or her own answer or close-ended where the respondent choose from a number of options available (McLeod, 2015).

Rules for creating questions to be used in the questionnaires:

- Different respondents must be able to interpret statements differently.
- Use positive statements.
- Do not make any assumptions.
- Keep the questions anonymous.
- Use clear and precise wording.
- Use easy to understand and precise questions (McLeod, 2015).

Questionnaires were distributed to many of the role players in the Shepherd Life business after the launch in order to gain an understanding of the success of the tablet design as well as usability of the software.

Conclusion

These systematic explicit and reproducible techniques described was used to evaluate Shepherd Life in terms of the objectives with the aim of developing a business plan and a tablet application for Shepherd Life.

3. Project approach

The project approach is a description of the project framework that was executed with the desired project objectives and deliverables in mind. It describes the process and the methodology that was followed to achieve the desired end results.

3.1 Approach for the development of the business plan

The first section of the literature review conducted in Chapter 2 gives a clear understanding of which techniques and methods to apply to deliver the best possible business design for Shepherd Life. The next important step was to use these new techniques and apply it within the business environment and structure of Shepherd Life. Working through this process systematically reduced the probability of overlooking significant factors. The following nine steps were executed chronologically:

Understand the problem

This was done by conducting workshops. As described in the literature study conducting workshops is an efficient method used to ensure that all role players involved are calibrated and understand what needs to be done, and how it should be done.

Determine the business strategy

In order to develop the optimal business strategy a customer, industry and competitor analysis was done. The customer analysis used demographic analysis and psychographic segmentation tools. The instruments that were used to analyse the industry are the PESTEL analysis and Porter's 5 forces. Finally the competitors were analysed by comparing and evaluating the most threatening competitors of Shepherd Life.

Design the business model

Different business models were constructed using the business model canvas. Models were compared and the best possible business model was selected.

Evaluate the business model

The business models were evaluated against each other using the analytical hierarchy process.

Analyse the financial model

The financial model is important because it confirms financial feasibility. Profitability, that is one of the main objectives of the business, is confirmed in the financial model. The financial model includes a sales as well as revenue forecast, income statement as well as a cash flow forecast.

Evaluate the financial model

The two models were evaluated and compared against each other using spreadsheets and graphs.

Differentiate the business model selected

By using the value discipline ranking and the marketing mix techniques, the business models were enhanced to differentiate the model from other models.

Implementation of Shepherd life

The actual process of implementation of the business falls out of the scope of this project but a short summary is given.

Validate the business design

The model was validated using different techniques. The SWOT evaluation assessment and a compliance with objectives check were done.

3.2 Approach for the development of tablet application

The second part of the study focussed on the information system design of the tablet application. The approach followed included workshops, evaluation and selection of software for the documentation of the tablet design, the design of the tablet following the structure showed in Figure 6, and finally the validation of the final tablet application.

Understand the problem

Workshops were held to gain an in depth understanding of the rationale and functionality of the application. These requirements were then documented in Microsoft Word to ensure that all the parties involved had the same clear understanding of the business environment and requirements.

Evaluate and select optimal software

After a thorough understanding of the problem was gained and the problem analyses was completed, it was important to choose the optimal software to successfully complete the data models, process models and user interface designs. Different software packages that was required to assist in the documentation, were compared and evaluated. It was concluded that all five software packages evaluated performed more or less the same and produced similar end results. The important decision was to select the tool that would best solve the specific problem and also supports the techniques selected to ensure the best results. By making use of a decision making method it was decided that Lucid-chart will be used to document the results. The choice of a product was also influenced by the availability of the software. Shepherd Life provided Lucid charts to complete the study.

Design the tablet application

Figure 6 is a graphical representation of the approach for the design of tablet application to clearly demonstrate the logic behind the design process (Bentley, Whitten and Randolph, 2007).

Implementation of Shepherd life

The physical process of implementation fell out of the scope of this project but a short summary is given.

Validate the tablet application

Validation of software can be done formally by means of unit tests, internal testing and user acceptance testing. Unit testing is done by calling code which tests certain blocks of units of the software. The output is immediately available and can be used as a benchmark to sustain code quality. Internal testing is usually done by a human, preferably not the one that wrote the code. User acceptance testing is done by the client, for example questionnaires, this is a formal type of testing and may lead to functionality sign off by the client (Istqbexamcertification.com, 2015)

Unit and internal testing falls out of the scope of this project for the student but techniques used in validating the tablet application included questionnaires and a compliance with objectives check. It was important to construct questionnaires and interviews in an ethical way to ensure that no parties involved were negatively affected by the results of the questionnaires or interviews. Ethical clearance

was required by the University of Pretoria. The questionnaires were approved by the EBIT ethics committee and the letter of approval can be seen in Appendix E.

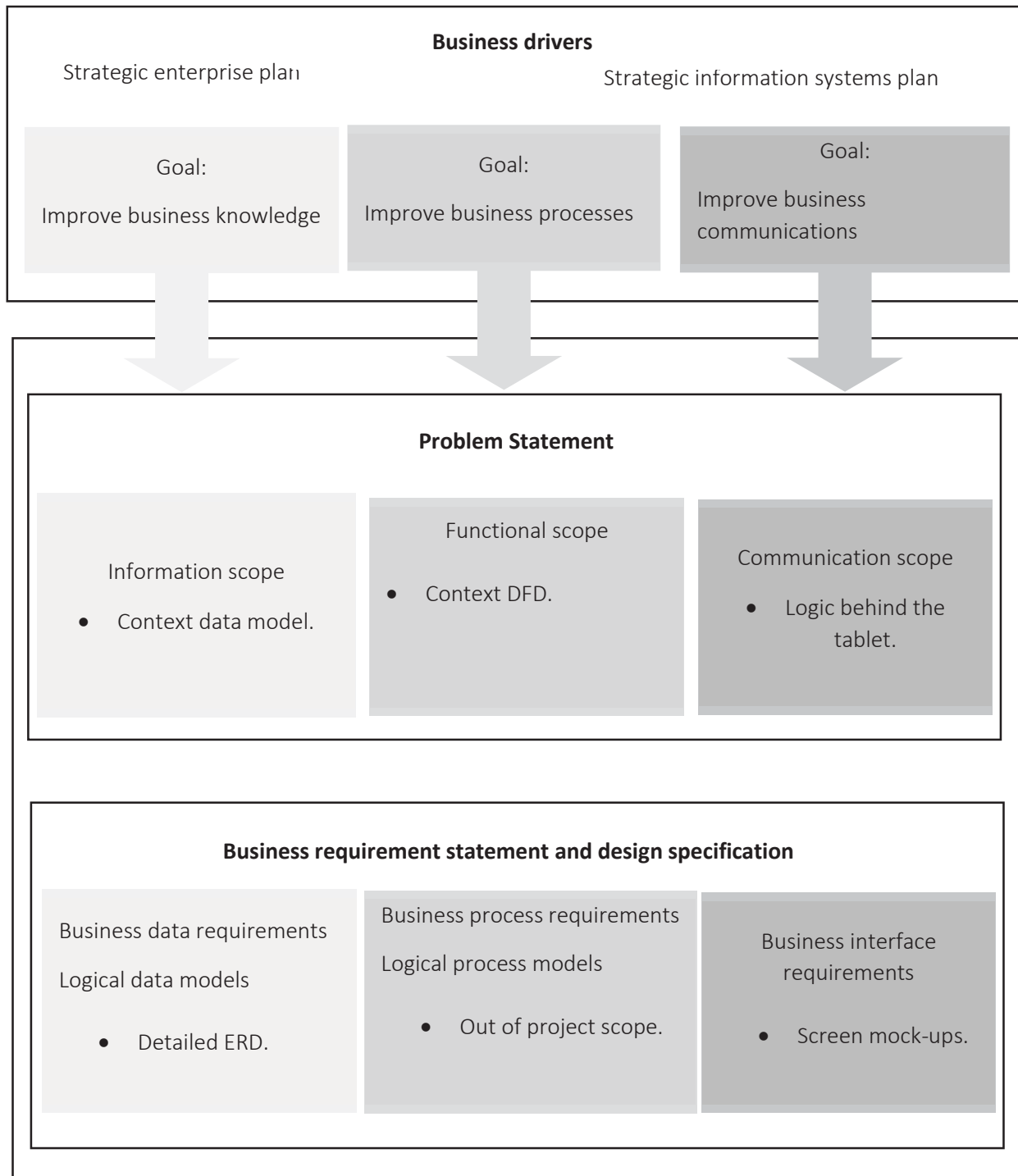


Figure 6: Graphical representation of the project approach for the tablet.

Conclusion

The 9 steps for the business plan and 5 steps for the tablet application were followed throughout the whole project process.

4. Problem investigation

In the following chapter an in depth analysis was done involving the new skills and techniques gained and explained in the literature study to find the optimal way to implement the business plan of Shepherd Life. It is crucial to understand the customers that Shepherd life serves, (the target market), the industry in which Shepherd Life operates and the competition the company is faced with and to ensure that all factors influencing the company are analysed to address all the opportunities and threats as best as possible.

Customer, industry and competitor analysis

4.1 The customer

Analyse the target market of Shepherd Life

Shepherd Life operates in the broader life insurance industry with a specific focus on the funeral policy market within this industry. The life insurance industry is an extremely competitive industry and Shepherd Life identified a niche target market within the wider target market where the specific insurance product was initially released.

The initial target market for Shepherd Life can be best described as follows:

- The client must be a beneficiary of the South African Government old age grants.
- To qualify for an old age grant the applicant must:
 - ✓ Be a South African citizen, permanent resident or refugee.
 - ✓ Be older than 60 years.
 - ✓ Be a resident in South Africa.
 - ✓ Comply with the means test, as well as their spouse (Amount of money earned per month).
 - ✓ Not be cared for in a state institution.
 - ✓ Not receive any other social grants.
 - ✓ Be in possession of a 13 digit bar code identity document.
- The client can extend the policy to include child dependents to the maximum age of 25 provided that the dependents are not earning any other income.
- The areas or communities that will be focussed on will predominantly be rural areas where literacy levels are low and access to the clients are normally difficult because of the lack of roads and other infrastructure (Sassa.gov.za, 2015).

The specific target market identified poses interesting challenges that are not normally existing in the more developed markets or client bases. These challenges include low levels of literacy as well as practices and belief that require timeously burials of the deceased. The lack of adequate morgue facilities in rural areas also makes it very difficult to accommodate the deceased body (corpse) for extended periods and timeous resolution and pay out of claims under the policies are critical for the success as well as the reputation and credibility of the business to ensure future sales into this market.

Assessing the target market

Meetings were held with members of the community in the North West to gain insight of their understanding regarding the potential target market.

It was concluded from the meeting that a lot of the potential policy holders are people who did not qualify for funeral benefits at other funds because of medical problems or a lack of formal medical history. The other problem is that policy holders can often only claim after six months, defeating the purpose of the claim.

The target market was then further assessed by a customer segmentation analysis and a psychographic analysis.

Customer analysis segmentation

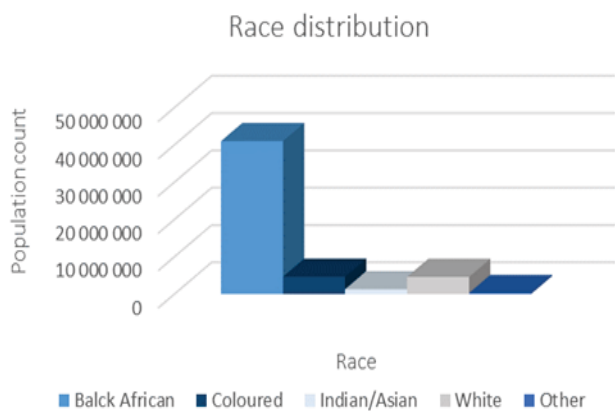
In order to understand the target market and the potential of the target market it was important to evaluate the total South African population. From the overall statistics a more detailed analysis was conducted on the specific target market.

Demographic Analysis (DA)

Table 10 indicates that black Africans constitute the majority of the population, followed by coloureds, whites and Indian/Asians (Africa, 2015). The number of black Africans in Gauteng constitutes almost 20% of the entire population of South Africa.

Table 10: Population of South Africa at the end of 2014 (Africa, 2015).

	Black African	Coloured	Indian/Asian	White	Other
Eastern Cape	5 660 230	541 850	27 929	310 450	21 595
Northen Cape	576 986	461 899	7 827	81 246	17 903
Free State	2 405 533	83 844	10 398	239 026	6 790
Kwazulu Natal	8 912 921	141 376	756 991	428 842	27 171
North West	3 152 063	71 409	20 652	255 385	10 444
Gauteng	9 493 684	423 594	356 574	1 913 884	84 527
Mapumalanga	3 662 219	36 611	27 917	303 595	9 597
Limpopo	5 224 754	14 415	17 881	139 359	8 459
Total	41 000 938	4 615 402	1 286 930	4 586 840	280 455



Age structure of South Africa

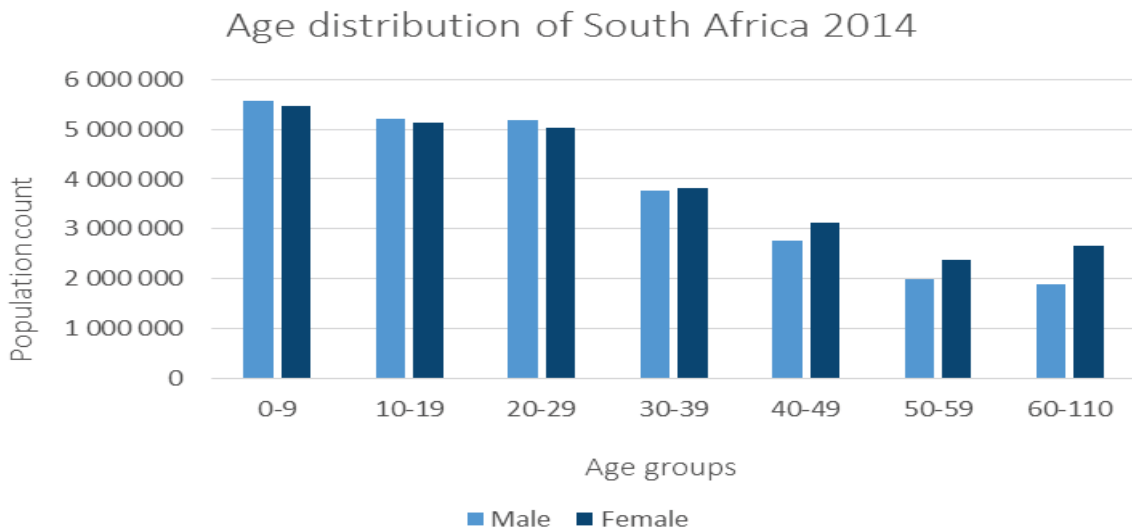


Figure 7: Age distribution in South Africa (Indexmundi.com, 2015).

It was concluded from Figure 7 that 8% of the population are 60 years and older. Although this is not the largest section of the population it still indicates a very large target market (Indexmundi.com, 2015).

Migration/Urbanisation

Migration, also known as urbanisation, is an important demographic process influencing the age structure and distribution of the provincial population. For the period 2011-2016 it is estimated that approximately 241758 people will migrate from the Eastern Cape to Gauteng and the Western Cape are estimated to experience the highest inflow of migrants of approximately 1106375, for the period 2011-2016 (Africa, 2015).

Psychographic segmentation

African beliefs concerning funerals

The belief in African cultures concerning death is that it is the beginning of a deeper relationship with all of creation for individuals. Death is a feared event and they believe that the ultimate goal of life on earth is to live a life pure and good enough to become an ancestor after death. Funerals are therefore of utmost importance because if the deceased person is not buried in a “socially acceptable and correct” way the deceased person may become a drifting ghost in the afterlife (Deathreference.com 2015).

Social Grants

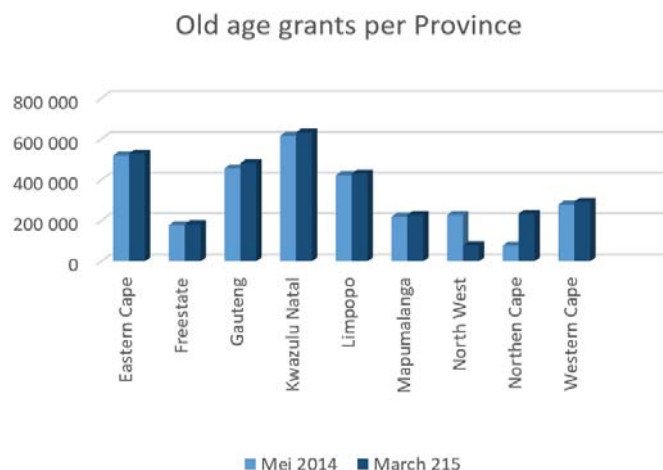
Table 11: Total number of social grants by grant type and region as at 31 March 2015 (Africa 2015).

Region	OAG	WVG	DG	GIA	CDG	FCG	CSG	TOTAL
Eastern Cape	528 291	47	182 479	16 391	19 165	115 849	1 856 250	2 718 472
Freestate	182 314	5	75 526	2 095	6 385	37 985	656 464	960 774
Gauteng	482 168	89	106 015	2 989	16 170	53 411	1 657 061	2 317 903
Kwazulu Natal	631 713	38	284 574	39 333	36 471	118 505	2 775 481	3 886 115
Limpopo	430 368	21	93 428	21 228	13 266	57 694	1 699 494	2 315 499
Mapumalanga	226 625	14	78 487	5 154	9 572	34 260	1 034 942	1 389 054
Northern Cape	79 080	9	50 787	6 587	4 787	14 513	290 497	446 260
North West	233 547	11	85 517	7 217	8 940	37 984	797 289	1 170 505
Western Cape	292 745	92	155 850	12 093	12 021	29 573	935 687	1 438 061
Total	3 086 851	326	1 112 663	113 087	126 777	499 774	11 703 165	16 642 643

The only grants with significance in Table 11 is the column with the heading OAG (The old age grant reflected in column 1) and the column with the heading CDG (Child dependent grant). The awarding of grants are increasing on a month to month basis. This is a very positive trend for Shepherd Life as this is the target market as described earlier.

Table 12: Old age social grant comparison between May 2014 and March 2015 (Africa, 2015).

Province	May-14	Mar-15
Eastern Cape	519 072	528 291
Freestate	177 963	182 314
Gauteng	455 457	482 168
Kwazulu Natal	616 132	631 713
Limpopo	423 090	430 368
Mapumalanga	218 554	226 625
North West	226 434	79 080
Northern Cape	77 409	233 547
Western Cape	277 680	292 745
Total	2 991 791	3 086 851



It can be concluded from Table 12 that there was an increase of almost 100 000 social grants awarded between March 2014 and March 2015. This is a major opportunity because it means that the target market is not only verly large but also annually increasing.

4.2 The industry

PESTEL analysis

Political factors

Government influences

When analysing political factors it is important to look at the government structure and beliefs of South Africa in specific. An important factor to consider is the movement and growth of the Economic Freedom Fighters (EFF) during the elections in the last few years. The EFF is the 3rd largest party with the African National Congress (ANC) being the leading party. The growth of the EFF was also visible in news reports with headings like: “DA and EFF Growing Faster than the ANC on Social Networks” and “EFF is the fastest growing party” -Julius Malema. It can be concluded that the EFF is rapidly growing and that they have large political influences (Publicnewshub.com, 2015); (Anon, 2015).

But who is the EFF and why is their growth of significance?

The EFF is one of the political parties of South Africa. They have a progressive, international outlook and strive to participate in global progressive movements. The beliefs of the EFF were inspired by the broad Marxist-Leninist tradition and they use this school of thought to conclude their analysis of the state, imperialism and culture contradictions in every society. The EFF provides an alternative to the current neo-colonial economic system. Their aim is to rid the country of the current imperialist domination (Economicfreedomfighters.com, 2014).

This drastic change to a more socialistic approach, where more and more people are dependent on the state, will lead the way for more people that will receive benefits in the form of social grants. This in turn will result in more of the elderly to benefit from old age grants.

Economic Analysis

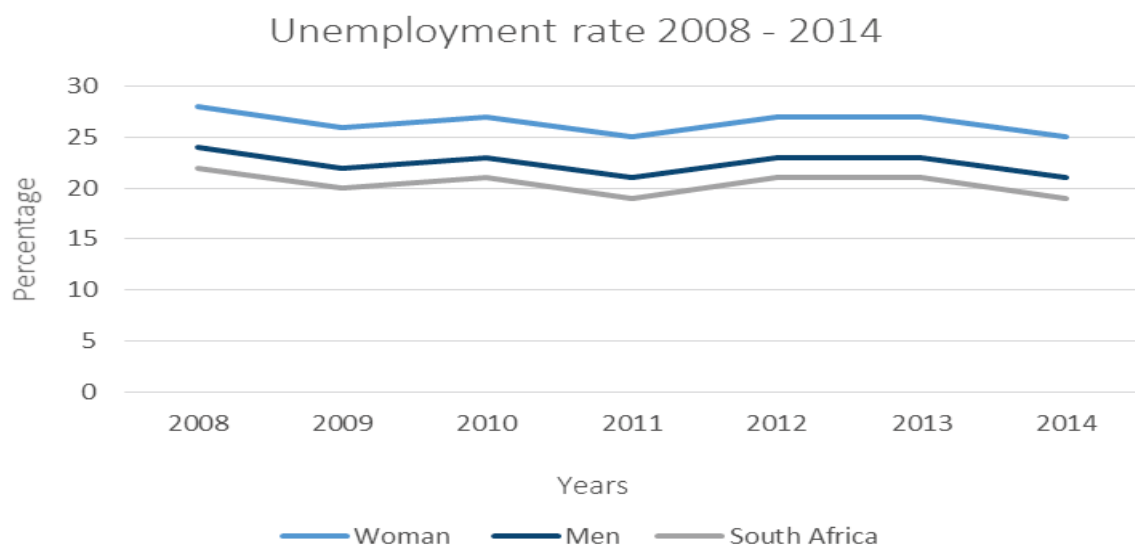


Figure 8: Unemployment rate in South Africa (Africa, 2015).

As can be seen in Figure 8 South Africa is faced with an extremely high unemployment rate with the current rate being 24.3% and the highest unemployment rate ever in South Africa being 31.2%. The opportunity cost of unemployment is immense when considering the scale of the economy. When workers are unemployed they are unable to produce output. Unemployment disorders the normal flow of life and if prolonged will possibly lead to health and psychological problems for the affected individuals (Africa, 2015). Although it is clear that a high unemployment rate is bad for the country and the economy, Shepherd Life can use this threat as an opportunity. A higher unemployment rate means that more people are dependent on the government and social grants. This will increase the demand of the product offered as well as ensure that the target population will increase.

Ease of doing business

South Africa is ranked 43 out of 189 countries (Doingbusiness.org, 2105). This ranking is an indication of how the regulatory environment of a country makes it favourable to start and operate a business in that country. A high ranking implies that the environment is in favour of starting and supporting new business. Being 43th out of 189 countries means that starting a new business in South Africa is a feasible and supported by the government.

Socio-Cultural

Poverty levels

Poverty is a crucial development challenge in social, economic and political terms. Fighting the legacy of poverty and under-development has always been a central theme of the government, especially after the government changes in 1994 (Africa, 2015).

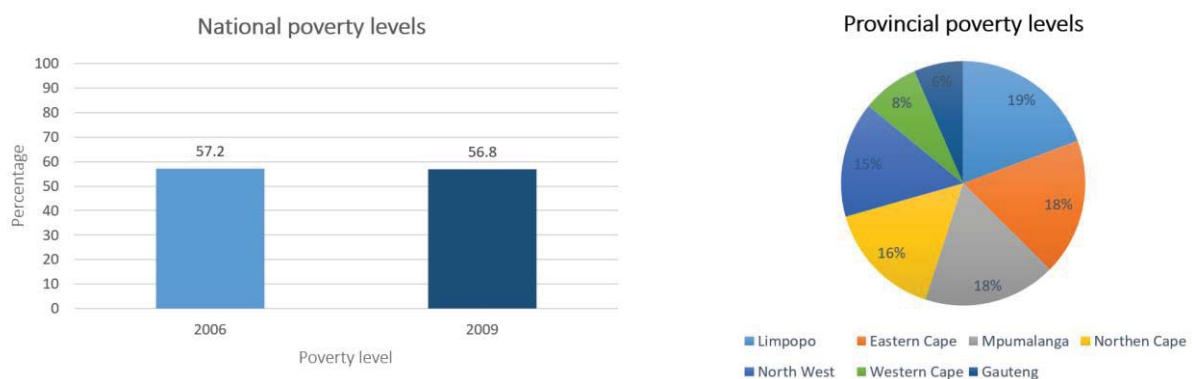


Figure 9: National and Provincial poverty levels in South Africa (Africa, 2015).

These two graphs seen in Figure 9 are important components when assessing the wealth and living standards of South African citizens. They are the leading metrics for the measurement of absolute poverty and inequality and they are an extremely important building block to predict consumption patterns.

Similar to employment and unemployment, poverty will lead to a definite increase in the number of people that are dependent on government grants. All economically active people that are unemployed

will eventually find themselves in the position where the dependency on the state will increase as they have no means to support themselves after reaching retirement age (Africa, 2015).

Modes of transport

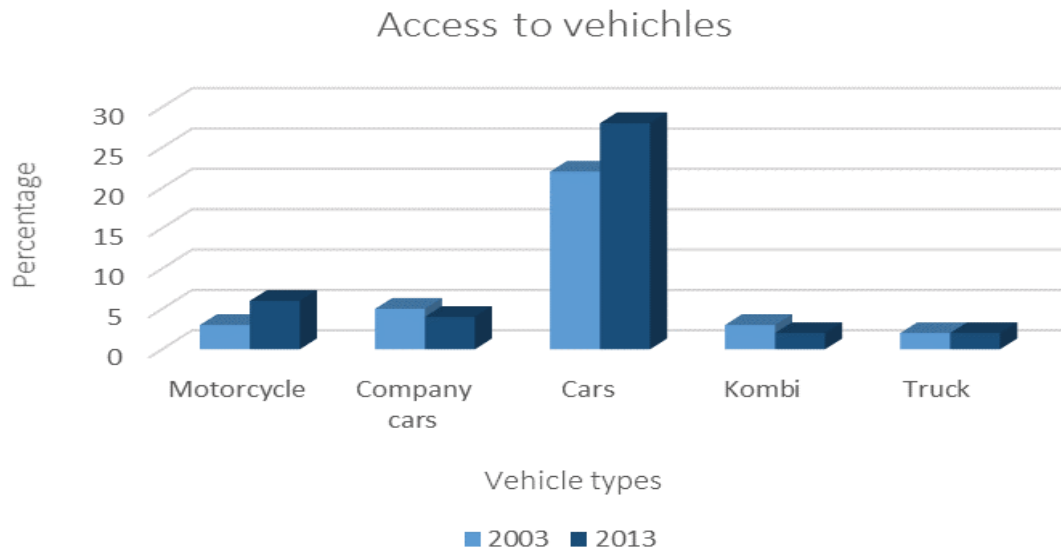


Figure 10: Access to vehicles of South African citizens (Africa, 2014).

It is clear to see in Figure 10 that transport is a critical issue in South Africa. This can influence the willingness of customers to travel long distances to obtain a funeral policy. Approaching these people, and offering the convenience of an utilised tablet can therefore be a great convincing factor to purchase the funeral policy of Shepherd life (Africa, 2014).

Technological

Mobile penetration

South Africa’s mobile penetration is currently 133%. Mobile data is becoming increasingly cheaper and more available as we speak. This means that more and more users are relying on internet access on their smartphones to get daily tasks like banking done. It was found that 63% of South Africans responded that mobile internet has “significantly improved” their lives. This is in stark contrast to only 40% of those in the United Kingdom who have the same sentiment (Fripp, 2014).

A third of mobile internet users in South Africa only gained access to the internet in the last 12 months. Citizens in South Africa claim that their mobile phones is the only way to connect with the world and having access to the internet is having a great impact on their lives. It’s helping them to save time and money and gives access to education and knowledge that will otherwise be impossible (Fripp, 2014).

Although internet connectivity and the possession of a cell phone is not a prerequisite to purchase and own a Shepherd Life policy, it will ensure that all communication sent by Shepherd Life to policy holders will reach the policy holders timeously (Fripp, 2014). Technology will be used during the selling process and availability of access to technology will enhance the feasibility of the business model.

Consumer Barometer

Devices used by citizens of South Africa

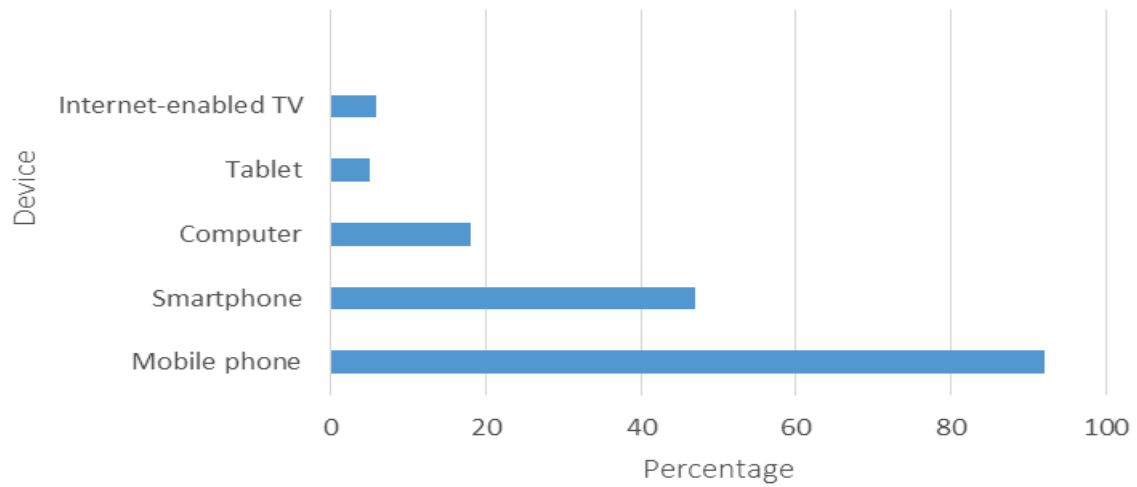


Figure 11: Devices citizens of South Africa use (Consumerbarometer, 2015).

According to Figure 11, mobile phones are used by 92% of the population. This will increase ease of reaching policy holders when necessary and most probably increase the popularity of the tablet.

Choosing a software operating system

Figure 12 clearly indicates that Android and Apple's iOS are primary operating systems used by users (Diffen.com, 2015).

World wide operating system market share

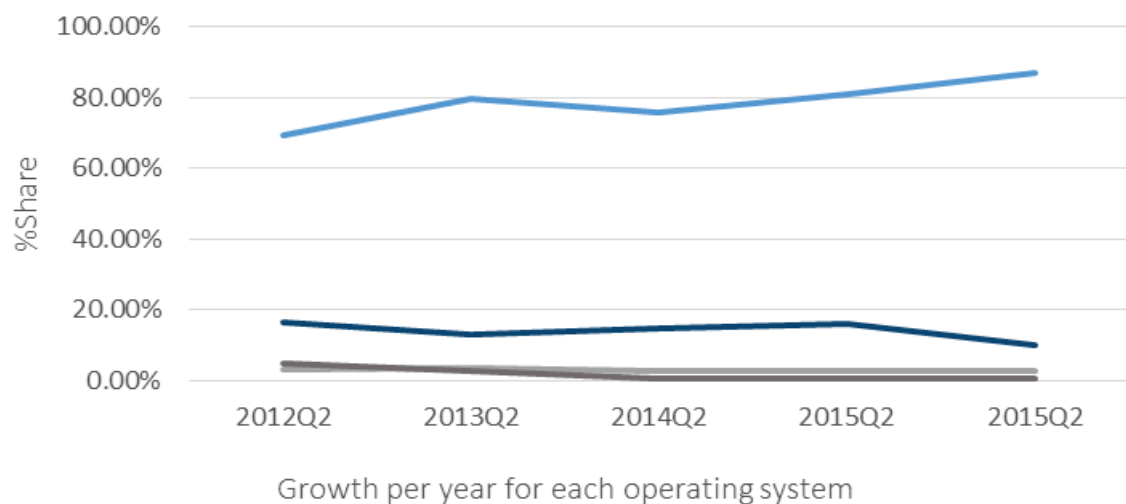


Figure 12: Usage of operating systems worldwide (World wide quarterly mobile, 2015).

Table 13: Differences between Android and iOS

Comparing iOS with Android	iOS	Android
Developer	Apple Inc.	Google
Initial release	July, 2007.	September, 2008.
Cost of development of Software and applications	Medium to high.	Medium.
Cost of deployment	Medium to high.	Medium to low.
Source model	Closed, with open source components.	Open Source.
Customizability	Limited, but can be jail broken.	Flexible, can change almost everything.
Ease of media transfer	With desktop application.	Depends on model.
Video chat	Face-time.	Google hangouts.
Available Language(s)	34 Languages.	32 Languages.
Interface	Touch screen.	Touch screen, smartwatch.
Software for each operating system	Objective C/ Swift	Java, C++

This analysis in Table 13 is of significance as the choice of platform for the development and roll-out of the application is an important decision. Usability as well as total cost of ownership are important factors that must be taken into consideration.

It was decided to develop the software for the Android operating system because of the large amount of developer support in terms of open source libraries and documentation.

Environmental analysis

Going green

Going green is a very popular term, especially in the 21st century. The term refers, to the implementation of a certain lifestyle that is more eco-friendly, continuously becoming more aware of the environment and implementing strategies to ensure the reduction of the carbon footprint. Converting to a Tablet will minimise the amount of paper used and wasted and will therefore earn “Green points”. Table 14 is gives an estimation of the air pollution because of paper usage.

Table 14: Carbon footprint calculator.

Example of carbon footprint calculator	
Consumption	
Number of documents	100000
Total pages	900000
Total reams consumed	1800
Average reams per tree	8.33
Statistics* (100 postconsumer paper)	
Number of trees per month (Qty)	21600
CO ₂ sequestration lost per month (kilograms)	39190
Hours of electricity used (kw hours)	3690000
Water (liters)	23848092
Air pollution (kilograms)	24494

Interesting facts concerning carbon footprints

Global production in the pulp, paper and publishing sector is expected to increase by 77% from 1995 to 2020. The paper and pulp industry is the single largest consumer of water used in industrial activities in the Organisation for economic Co-operation and development (OECD) countries, and is the third greatest industrial greenhouse gas emitter. Most of the worlds' paper supply, about 71%, is not made from timber harvested at tree farms but from forest harvested timber, from regions with ecologically valuable, biologically diverse habitat (Allen Hershkowitz, 2012).

Legal Analysis

Industry specific rules and regulations

It is important to ensure that your organisation complies with all government rules and regulations. It is important to comply with the New Companies amendment act, established in 2008 and also the Labour law. The full companies act can be reviewed on request and an in depth understanding of the labour law can be gained through the website: <http://www.labourguide.co.za/> (Labourguide.co.za, 2015).

Shepherd Life will be governed under the rules of the FSB and are by law required to have their personnel approved by the Financial Services Board (FSB). The FSB is the financial regulatory agency responsible for the non-banking financial services industry for South Africa. It is responsible to regulate and supervise the financial services industry in the best interest of the public (Labourguide.co.za, 2015).

Current legislation related funeral policies

Current legislation allows that one funeral policy deduction can be made from the social grant from every employee every month. This legislation is only applicable to funeral policies and is a huge benefit and decreases the risk of not being able to collect the premiums from the clients. This legislation will allow Shepherd Life to collect the premiums payable by the clients before the grant is paid to the pensioner.

Porters 5 forces

Threat of entry

Supply side economies of scale

Shepherd Life as a new entrant to the market will not face large disadvantages concerning lower costs per unit of the competitors because they are not producing any products. They do not have any large fixed cost giving them an advantage compared to already well established firms. Their equipment requirement will increase only as a result of sales and penetration into the market. The cost of equipment is however borne by the underwriter.

Demand side economies of scale

The niche target market of Shepherd Life will play a positive role concerning the demand side benefits of scale. In the product offering from Shepherd Life there are no exclusions because of age or health conditions. This is a very aggressive marketing strategy but critically important because exclusions because of HIV alone had a very negative impact on sales of similar life products in the market.

The aim will be to target the elderly men of the communities first, influencing the other households to follow in the footsteps of the respected older men, in the adoption of the product. A high standard of service delivery will be a strong drive within this initial focus area.

Capital Requirements

Minimum capital layout is required. The initial cost of the development of the software is reasonably small because the software licencing model for the Shepherd Life member database will be based on the success of the company, (a percentage of the premium is payable based on the number of policies sold), and not as an initial capital requirement. The financial model however shows an initial period of negative cash flow that will have to be financed by the shareholders.

Customer switching cost

The cost incurred by customers when changing from one funeral policy to another is very low. They can simply end their current policy and switch to another. This is a threat as well as an opportunity because it means that if Shepherd Life's policy is attractive enough customers will easily switch to it but this also means that if they are not satisfied with the product they can switch to another product without any costs. A funeral policy does not carry a specific sell off value. It means that if a customer wishes to cancel the policy that there will not be any premiums paid back to the client.

Restrictive government policies

The government made a specific allowance that the premium of only one funeral policy may be deducted from the social grant before the grant is paid to the recipient. Social grants are administered by third party agents that manage the process from allocation to pay out based on very strict criteria. The recipient must be personally present when receiving the grant and must be registered on the SASSA systems. Automatic fingerprint verification (AVS) is used to positively identify the person. Stricter controls including biometric identification is currently being investigated.

The third party vendors will receive a monthly file that will include all policy holders. The premiums will be deducted from the grant and paid to Shepherd Life every month.

The power of suppliers

Supplier concentration

The differentiator here is again the target market. The product will be sold to anyone who qualifies for a social grant. Other companies like AVBOB and ASSUPOL have age and health restrictions which gives the Shepherd Life product an edge.

Available information concerning suppliers

There is general information available concerning policies but each potential policy holder will have to speak to an agent to get all required information concerning their specific policy need. It is therefore difficult to acquire competitor pricing information. When researching different possibilities for funeral cover a client will get the same results each time saying that they will have to speak to a sales person if they require any information regarding specific policies.

Uniqueness of service

There are three distinctive qualities that differentiates this funeral policy from other funeral policies. There is no age restriction, no health discrimination and immediate cover is available because of the tablet which is a huge advantage because of the beliefs around the importance of funerals in the local communities.

The power of buyers

The concentration of buyers

As evident in the evaluation of our target market the size of the target market is enormous, and having no age restrictions and health discrimination for the policy, increases the buyer concentration even more.

Access of information

Buyers do not have sufficient access to necessary information to gain enough knowledge to choose between different policies without the advice of agents. This gives the opportunity for agents to sell their product better than their competition. A very comprehensive training program is envisaged for all agents in the employment of Shepherd Life.

Differences between competitors

The tablet will differentiate this solution because it eliminates all paper work and therefore unnecessary frustration. Another differentiator is the fact that pensioners of all ages and health condition are allowed to buy this policy.

The threat of substitutes

Substitute performance

Although many substitutes exist concerning funeral policies in general the differentiators of this policy is the target market and the application, which minimises the direct threat of substitutes.

Replication of the model

The threat exist that other companies could replicate the company idea. This presents the opportunity and motivation to always ensure that you are one step ahead of the rest to ensure customers to always prefer the product of Shepherd Life.

Rivalry amongst existing competitors

There are numerous companies that provide funeral policies to the market but only one company could be found that competes for the same target market. The company is of reasonable size and fierce resistance is expected soon after the launch of the Shepherd Life product. The fact that the cost to change to an alternative product is very low will provide an opportunity to Shepherd Life to convert many of the existing customers to the new product. This is seen as an opportunity as only a small percentage of the target market are already customers of the competition.

4.3 The competitor

It is not only important to know your customer and industry but also to know your competitors to ensure a competitive edge and to make informed decisions. The top 4 competitors that relates the closest to Shepherd Life are Hollard, Doves, Assupol and AVBOB.

Competitor summary

Hollard

Hollard is an authorised financial services provider. Hollard is dedicated to provide high ethical standards of business. They operate mainly through a website:

www.hollardfuneralcover.co.za. They have an online insurance website, which enables users to enter their contact information, and have a sales agent call them back (Hollardfuneralcover.co.za, 2015).

Although being an online company sounds like a great advantage, it is a disadvantage in the specific target market of Shepherd Life. Although it may seem as a similar channel to market it is not the same business model as the tablet at all. The tablet will be used to go to customers and sell policies easy and without the hassle of paperwork. The target market doesn't necessarily have internet access or sufficient knowledge to utilise the website and they will therefore gain no advantages because of the website. Another advantage that Shepherd Life has over Hollard is that Shepherd Life specialises only in funeral policies where Hollard has many insurances policies that they offer. The spread can be too wide that will result in a lack of focus. Shepherd life can focus all of their attention and strengths on the funeral policy while Hollard has many areas to focus on which can decrease their attention and focus.

Doves

The Doves group (Pty) is an authorised financial services provider. Doves is one of the largest funeral policy companies in South Africa and a key role player in the progressive development of the funeral industry. They specialise mainly in funerals, insurance cover and memorials. As the founding member of the National Funeral Directors Association (NFDA) and the Funeral Federation of South Africa (FFSA), the company has influenced the existing structure of the industry (Doves.co.za, 2015).

It is clear to see that Doves has been around for a long time and this can give major advantages because they are well established, well known and have years of experience but being in the industry for so long can also be a disadvantage. It can cause the company to stagnate, not constantly adapting to the latest environment and being up to date with latest technology and change in markets and customer needs. Shepherd Life should take advantage of this threat by ensuring state of the art technology and a full and in depth understanding of their target market to ensure optimal satisfaction of customers.

Assupol

Assupol Life is an authorised financial services provider offering life, savings, funeral and retirement annuity products primarily in the lower to middle income market. They were established in 1913 providing mainly for members of the national police force, correctional services and other government

employees but they have broadened their target market to include the general public. They were the first to introduce the 48-hour claim turn around (Assupol.co.za, 2015).

Their 48-hour claim turn around can be a threat, especially because of the beliefs concerning funerals. This threat can be turned into an opportunity knowing that this is a concern and intentionally improving the 48 hour claim turn around by offering an even better turnaround time.

AVBOB

AVBOB was established in 1918 and is now Africa's largest mutual assurance society. They provide funeral insurance as well as burial services. AVBOB claims to be highly committed to cultural and social support and improvement of the diverse group of the people they serve. They have also opened branches in numerous previously disadvantaged areas (Avbob.co.za, 2015). It is clear that AVBOB is also focussed on uplifting of the community and that they focus on previously disadvantaged communities. It is important to take this threat and turn it into an opportunity excelling in knowledge and commitment to these communities. Finding differentiators that can differentiate Shepherd Life from AVBOB and other companies with the same shared values and drive forces is of critical importance.

Conclusion

After doing an in depth analysis of the proposed target market, the industry and the competitors using the techniques reviewed in the literature study it was concluded that:

A very promising target market exist for Shepherd Life. This is because of the high poverty levels in South Africa resulting in a high number of people that qualify for social grants. The industry Shepherd Life is operating in, appears to be promising as well. The reasons for this include that the niche target market of Shepherd Life plays a positive role concerning the demand side benefits of scale. The product offering from Shepherd Life does not exclude anybody because of age or health conditions. Minimal capital layout is required and finally the cost incurred by customers when changing from one funeral policy to another is very low. Although many competitors exist for Shepherd Life there is no competitor that offers the same product, using the same marketing channels to market and focussing on the same target market.

The strategy of Shepherd Life is to develop a highly competitive funeral policy product in respect of price and to deliver the product to this very niche customer base utilising technology outperforming the existing competitors.

5. Model design and evaluation

5.1 Designing the business model

The business model depicts the content, structure and governance of the transactions designed so as to create value through the exploitation of business opportunities (Weiss, 2013).

In the following chapter two alternative business models were compared by using the business model canvas and a financial analysis.

Business model canvas

The business model canvas provides the business with a holistic and integrated view of its business model (Franken, 2015). It consists of nine building blocks as explained in the literature study. The two business models, business model canvas A and business model canvas B is compared and referred to as Option A and Option B.

The different business models were summarised as follows:

Table 15: Summary of the two business models.

Option A	Option B
<p>This model is the more traditional model where funeral policies are sold to customers through the traditional paper application process. Offices exist in the main centres and towns. Customers are restricted by a maximum age and other restrictions and waiting periods may apply. Premiums are collected through debit orders and no restrictions are placed on monthly income and benefits, other than the restrictions as governed by the relevant regulations. Sales agents are remunerated on a fixed commission model where commission is earned on a percentage of the first twelve month's premiums.</p>	<p>This model is much more restrictive in respect of the target market but the premium collection is guaranteed through legislation. The model does not place any limitations on age and health, provided that the applicant is a beneficiary of a government grant. A mobile office in the form of a tablet is the only interaction between the company and the customer through a well-trained field agent. Agents are rewarded on a monthly basis through a commission structure that carries the value of the first month's premium. Team leaders, area managers and regional managers are rewarded on a monthly basis through a commission structure that has an initial high value but decreases over a 20 month period</p>

Explanation of the nine building blocks

Customer segments

This element enables the business to identify its target market, mainly focusing on how the market will be segmented (Franken, 2015).

Table 16: Customer segments for Option A and Option B.

Option A	Option B
The customer segment of this business model is not restricted at all. The product that is offered to the customer base is however restricted in respect of maximum age and certain health conditions and therefore certain restrictions may apply. The primary customer segment will be low to middle income earners who did not make provision for their funeral with other means. A further segment is on people who want to supplement current savings with additional funeral cover.	The first factor that distinguishes the customer segment is the customer's income. This factor is significant because the primary customer segment in this option are all dependent on a social grant. The second differentiating factor is the risk profile of the customer segment, the earlier the customer takes out the policy the better their benefits will be. The final segment are the parents or grandparents responsible for their grandchildren or children for which a child social grant is received.

Value proposition

Value proposition refers to the value that the business will deliver to the customer (Franken, 2015). Shepherd Life will provide highly competitive multi-option funeral policies to the specific market segment in both business models.

Channels

This building block refers to how Shepherd Life plans to interface and interact with the customer.

Table 17: Different channels for Option A and Option B.

Option A	Option B
The channels to market that are evaluated in this option will be the more traditional channels, being the establishment of decentralised offices, to be able to service walk-in customers. An additional channel in this option will be the internet through a query facility where the basic information can be captured by the prospective customer. This information will then be followed up by a visit by an authorised representative of the company. In this model the customer will be required to complete the necessary paper based application. Documentation for processing and approval by the head office.	The primary channel is direct contact by making use of a tablet with specialised software to interact with the client. The tablet will eliminate all cumbersome paperwork and eliminate fraud. The application will be submitted electronically for approval. Feedback and any other upselling will be managed through the tablet software by and authorised agent of the company. No offices will be established.

Customer relations

Customer relations refer to the relationship that the authorised personal will have with the clients and the method of serving the clients.

Table 18: The difference in customer relations for Option A and Option B.

Option A	Option B
The relationship with the customer will be managed by authorised personnel and clients will be serviced in the walk-in offices or personal visits.	The relationship with the customers will be direct and personal. No physical field offices for Shepherd Life will exist under this option. Each agent will act as a fully functional mobile office utilising the help desk facility function on the tablet.

Key resources

This building block refers to the infrastructure and other key resources required for the successful operation of the company.

Table 19: The difference between the key resources for Option A and Option B.

Option A	Option B
This model will have three key resources: financial, human and physical. The financial resources are in the form of both capital investment as well as ongoing monthly operational costs. The human resources are administrative and operating staff. A well-trained salesforce as well as very competent back-office personnel is required. Physical resources include a head office as well as field offices, office furniture and equipment. Branding costs of the offices can be a significant cost as well. A major operational cost will be incurred for the printing and distribution of application forms.	Similar but lessor constraint is put on the company as there will be no field offices. Financial: The capital investment required is much lower. Operational financial requirements are also lower because the agents are rewarded on a monthly basis and not in advance. There is a smaller cash flow requirement. Human resources includes area managers and agents. A well trained and certified field agent's pool is important with a lessor dependency on back-office personnel. Physical resources will include the tablet devices necessary for sales.

Key activities

These are the core activities that needs to be performed in order to ensure that the business model works efficiently.

Table 20: Difference between key activities for Option A and Option B.

Option A	Option B
<p>This model focuses on operating and managing offices effectively. Offices must have the most efficient layout and must be cleaned regularly. Administrative duties must be maintained. Appropriate office hours must be selected to keep the customer happy. Knowledgeable staff will be available and administrative staff will keep the website interactive.</p>	<p>This model focusses on selling the funeral policies by means of a tablet. It is important to ensure that the tablet application is updated and improved as required. Skilful and trained agents are important to ensure maximum sales. Agents must reach out to potential customers.</p>

Key partners

The most important partner is the under writer of the product. Shepherd Life chose their under writer as Regent Life for Option A and B. Regent Life needs to ensure continuous improvement and enhancements of the product and benefits are of paramount importance for client retention and to ensure that the competitive advantage over the competition is maintained.

Cost structure

Costs for the establishment and operation of the company can be divided into two major components. These components are capital and operational costs.

Table 21: Difference between the cost structure for Option A and Option B.

Option A	Option B
<p>Extensive financial resources are required to establish the required infrastructure namely a company head office, field offices as well as office furniture and equipment. Branding costs of the offices can be a significant cost as well. These financial resources are in the form of capital investment as well as ongoing monthly operational costs. The operational costs are for payment of admin staff, rent, telephone and other costs incurred by a normal administration office. A major operational cost will be incurred for the printing and distribution of application forms.</p>	<p>The financial resources required for this option are the costs for the establishment of a head office and head office infrastructure. A second cost is the cost for the tablets that will be used by the agents but the under writer agreed to cover the costs of all tables and costs related to internet connectivity. Very little cost will be incurred for printing and stationary as all client interaction will be through technology.</p>

Revenue streams

Shepherd Life will have two revenue streams. The first revenue stream is the initial commission received from the under writer of the scheme in the form of the first months premium received from the customer. The second source of revenue is the recurring commission that will be received every month as long as the policy is active and contributions are successfully collected from the customer. There is a key differentiator between the two options.

Table 22: Difference between the revenue stream for Option A and B.

Option A	Option B
A model will exist where a debit order is signed by the customer with the inherent risk of none or late payment.	In this model the monthly contribution will be deducted from the social grant before payment is made to the grant recipient.

Summary of the two models

Table 23 summarises the two models to visualize the difference between the two models and to increase the ease of choosing the optimal one.

Table 23: Summary of the comparison between the two models for the nine building blocks.

Customer segments		Key activities		Customer relations		Key resources		Cost structure	
Model A	Model B	Model A	Model B	Model A	Model B	Model A	Model B	Model A	Model B
Customer segment not restricted.	Customer segmented by dependency on a social grant.	Service walk-in customers.	Sell policies via a tablet.	Managed by authorised personnel.	Dedicated personal assistance: agents reach out to customers and sell the policy in the comfort of their homes.	Human: administrative and cleaning staff.	Human: Field agents and area managers.	Printing costs.	Tablets: cost will be covered by the underwriter.
Age limit is the retirement age or 65, whichever the highest. Certain health conditions are restricted.	This model has no age or health limit.	Maintain administrative duties.	Update and improve tablet software regularly.	Automated services: customers can access the website electronically.	Direct and personnel relationship.	Physical: Head office, field offices, office furniture and equipment.	Physical: Tablet (cost is covered by the underwriter).	Financial: Capital investments, monthly operational costs.	Financial: Capital investments, monthly operational costs.
Customers who want to supplement current savings with additional funeral cover.	The earlier the customer takes out the grant the better the benefits. Grandparents and parents.	Regulate effective layout of offices.	Hire skilful agents.			Co-creation: customer derived value improved through feedback and forums.	Financial: Capital investments, monthly operational costs.	Salaries.	Underwriter.
Value proposition		Channels		Key partners		Revenue stream			
Value proposition will be the same for both models as the same product will be delivered. Wide range of policies offered to a wide group of customers.		Model A	Model B	The key partners that Shepherd life will partner with will be the same for model A and model B. Regent will be the underwriter of Shepherd life.		Model A	Model B		
		Decentralised offices.	Direct contact by making use of a tablet.			Debit order is signed by the customer with the inherent risk of none or late payment.	Monthly contributions deducted from the social grant before payment is made to the grant recipient.		
		Website.	Each agent act as a fully functional mobile office.						

5.2 Evaluating the business model

The construction of the two different business models using the business model canvas was now done. The next important phase was to evaluate the models to ensure that the optimal model is selected for implementation. Determining the right business model is challenging. To avoid trial and error it was important to implement the best possible model the first time. Choosing the best business model adds value and can be the differentiating factor between success and failure (Byrant, 2015). The technique that was used is called the analytical hierarchy process.

Analytical hierarchy process

The analytical hierarchy process (AHP) that was used is a mathematical tool that evaluates complex decision problems. It consists of three steps:

1. Pairwise comparison matrices.
2. Pairwise criteria comparison.
3. Business model selection based on final weights.

Step 1: Pairwise comparison matrices:

Each option (Option A and Option B) is compared relative to the other for each of the 12 criteria as documented by David Weiss in his master thesis on the subject.

Let a_{ij} ($i = 1, 2, 3, \dots, M$ and $j = 1, 2, 3, \dots, N$) represent the performance of i against j . Where i represents the rows and j the columns (Byrant, 2015).

Scale matrix

A standard scale was used in the pairwise comparison to evaluate the two options, the scale is explained in detail in Table 24 (Byrant, 2015).

Table 24: Scale matrix explanation.

Scale	Description
1	Option i and Option j is of equal importance.
2	Option i is slightly more important than option j .
3	Option i is much more important than option j .
4	Option i is extensively more important than option j .
5	Option i is absolutely more important than option j .

If i has one of the above values then j has the reciprocal value when compared to i .

Figure 13 graphically illustrates the comparison between Option A and Option B for each criteria. The intermediate matrix values were calculated by dividing the score of each option by the sum of that option. The weights were calculated by taking the average of the sum for both options.

Pairwise comparison for the two alternatives in respect of all criteria

Efficiency		
	Option A	Option B
Option A	1.00	0.33
Option B	3.00	1.00
SUM	4.00	1.33
Intermediate matrix		
	0.25	0.25
	0.75	0.75
Weights		
Option A	0.249	
Option B	0.751	

Lock-In		
	Option A	Option B
Option A	1.00	1.00
Option B	1.00	1.00
SUM	2.00	2.00
Intermediate matrix		
	0.50	0.50
	0.50	0.50
Weights		
Option A	0.500	
Option B	0.500	

Novelty		
	Option A	Option B
Option A	1.00	0.20
Option B	5.00	1.00
SUM	6.00	1.20
Intermediate matrix		
	0.17	0.17
	0.83	0.83
Weights		
Option A	0.167	
Option B	0.833	

Uniqueness		
	Option A	Option B
Option A	1.00	0.20
Option B	5.00	1.00
SUM	6.00	1.20
Intermediate matrix		
	0.17	0.17
	0.83	0.83
Weights		
Option A	0.167	
Option B	0.833	

Fit		
	Option A	Option B
Option A	1.00	1.00
Option B	1.00	1.00
SUM	2.00	2.00
Intermediate matrix		
	0.50	0.50
	0.50	0.50
Weights		
Option A	0.500	
Option B	0.500	

Profitability		
	Option A	Option B
Option A	1.00	0.33
Option B	3.03	1.00
SUM	4.03	1.33
Intermediate matrix		
	0.25	0.25
	0.75	0.75
Weights		
Option A	0.248	
Option B	0.752	

Inimitability		
	Option A	Option B
Option A	1.00	0.20
Option B	5.00	1.00
SUM	6.00	1.20
Intermediate matrix		
	0.17	0.17
	0.83	0.83
Weights		
Option A	0.167	
Option B	0.833	

Robustness		
	Option A	Option B
Option A	1.00	0.50
Option B	2.00	1.00
SUM	3.00	1.50
Intermediate matrix		
	0.33	0.33
	0.67	0.67
Weights		
Option A	0.333	
Option B	0.667	

Adaptability		
	Option A	Option B
Option A	1.00	0.20
Option B	5.00	1.00
SUM	6.00	1.20
Intermediate matrix		
	0.17	0.17
	0.83	0.83
Weights		
Option A	0.167	
Option B	0.833	

Scalability		
	Option A	Option B
Option A	1.00	0.40
Option B	2.50	1.00
SUM	3.50	1.40
Intermediate matrix		
	0.29	0.29
	0.71	0.71
Weights		
Option A	0.286	
Option B	0.714	

Patentability		
	Option A	Option B
Option A	1.00	0.45
Option B	2.22	1.00
SUM	3.22	1.45
Intermediate matrix		
	0.31	0.31
	0.69	0.69
Weights		
Option A	0.310	
Option B	0.690	

Plausability		
	Option A	Option B
Option A	1.00	5.00
Option B	0.20	1.00
SUM	1.20	6.00
Intermediate matrix		
	0.83	0.83
	0.17	0.17
Weights		
Option A	0.833	
Option B	0.167	

Figure 13: Pairwise comparison.

Step 2: Pairwise criteria comparison

This step compared the criteria to determine which is more important than the other with regard to the business model of Shepherd Life.

Scale matrix

A standard scale was also used in the pairwise criteria comparison evaluate the two options, the scale is explained in detail in Table 25 (Byrant, 2015).

Table 25: Scale matrix explanation (Byrant, 2015).

Scale	Description
1	Criteria i and Option j is of equal importance.
2	Criteria i is slightly more important than option j.
3	Criteria i is much more important than option j.
4	Criteria i is extensively more important than option j.
5	Criteria i is absolutely more important than option j.
<i>If i has one of the above values then j has the reciprocal value when compared to i.</i>	

The weights in Table 26 were assigned according to the importance of the criteria on the Y-axis in relation to the criteria on the X-axis. If the criteria on the Y-axis is more important than the criteria in the X-axis it received a score above one and vice-versa. The values are based on the relevant importance of the criteria in the two business models with profitability, scalability, efficiency and patentability as the most important.

Table 26: Pairwise criteria comparison.

Criteria	Efficiency	Lock-in	Novelty	Uniqueness	Fit	Profitability	Inimitability	Robustness	Adaptability	Scalability	Patentability	Plausibility
Efficiency	1.00	2.00	2.00	3.00	4.00	0.25	1.00	2.00	1.00	0.25	0.25	1.00
Lock-In	0.50	1.00	3.00	3.00	2.00	0.25	0.33	0.33	0.33	0.20	0.25	0.25
Novelty	0.50	0.33	1.00	1.00	1.00	0.20	0.33	0.33	0.33	0.33	0.33	0.33
Uniqueness	0.33	0.33	1.00	1.00	2.00	0.25	0.25	0.25	0.25	0.25	0.25	0.40
Fit	0.25	0.50	1.00	0.50	1.00	0.20	0.33	0.33	0.33	0.33	0.33	0.33
Profitability	4.00	4.00	5.00	4.00	5.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00
Inimitability	1.00	3.03	3.03	4.00	3.03	0.20	1.00	3.00	0.33	0.33	1.00	2.00
Robustness	0.50	3.03	3.03	4.00	3.03	0.20	0.33	1.00	0.33	0.25	0.40	2.00
Adaptability	1.00	3.03	3.03	4.00	3.03	0.20	3.03	3.03	1.00	0.30	3.00	3.00
Scalability	4.00	5.00	3.03	4.00	3.03	0.20	3.03	4.00	3.33	1.00	4.00	4.00
Patentability	4.00	4.00	3.03	4.00	3.03	0.20	1.00	2.50	0.33	0.25	1.00	1.00
Plausability	1.00	4.00	3.03	2.50	3.03	0.20	0.50	0.50	0.33	0.25	1.00	1.00
Total	18.08	30.26	31.18	35.00	33.18	3.35	16.13	22.27	12.90	8.74	16.81	20.31

Calculate the final weights of each criteria

The results of the pairwise criteria comparison matrix was used to calculate the final weights of the intermediate matrix.

Table 27: Intermediate matrix.

Criteria	Relative values												Final weight
Efficiency	0.0553	0.0661	0.0641	0.0857	0.1205	0.0746	0.0620	0.0898	0.0775	0.0286	0.0149	0.0492	6.57%
Lock-In	0.0276	0.0330	0.0962	0.0857	0.0603	0.0746	0.0205	0.0148	0.0256	0.0229	0.0149	0.0123	4.07%
Novelty	0.0276	0.0110	0.0321	0.0286	0.0301	0.0597	0.0205	0.0148	0.0256	0.0378	0.0196	0.0162	2.70%
Uniqueness	0.0184	0.0110	0.0321	0.0286	0.0603	0.0746	0.0155	0.0112	0.0194	0.0286	0.0149	0.0197	2.79%
Fit	0.0138	0.0165	0.0321	0.0143	0.0301	0.0597	0.0205	0.0148	0.0256	0.0378	0.0196	0.0162	2.51%
Profitability	0.2212	0.1322	0.1603	0.1143	0.1507	0.2985	0.3099	0.2245	0.3876	0.5721	0.2974	0.2462	25.96%
Inimitability	0.0553	0.1002	0.0972	0.1143	0.0913	0.0597	0.0620	0.1347	0.0256	0.0378	0.0595	0.0985	7.80%
Robustness	0.0276	0.1002	0.0972	0.1143	0.0913	0.0597	0.0207	0.0449	0.0256	0.0286	0.0238	0.0985	6.10%
Adaptability	0.0553	0.1002	0.0972	0.1143	0.0913	0.0597	0.1878	0.1361	0.0775	0.0343	0.1785	0.1477	10.67%
Scalability	0.2212	0.1652	0.0972	0.1143	0.0913	0.0597	0.1878	0.1796	0.2584	0.1144	0.2380	0.1969	16.03%
Patentability	0.2212	0.1322	0.0972	0.1143	0.0913	0.0597	0.0620	0.1123	0.0258	0.0286	0.0595	0.0492	8.78%
Plausability	0.0553	0.1322	0.0972	0.0714	0.0913	0.0597	0.0310	0.0225	0.0258	0.0286	0.0595	0.0492	6.03%

Step 3: Final weights for Option A and Option B

The final weights in Table 28 was calculated for Option A and B by multiplying the criteria weight as calculated in Figure 14 with the sum of all the weights, as calculated for each one of the 12 criteria in Table 26.

Table 28: Final weights for option A and B.

Criteria	Criteria weights	Model A		Model B	
		Weight A	Final weight A	Weight B	Final weight
Efficiency	6.57%	24.91%	1.64%	75.09%	4.93%
Lock-In	4.07%	50.00%	2.04%	50.00%	2.04%
Novelty	2.70%	16.67%	0.45%	83.33%	2.25%
Uniqueness	2.79%	16.67%	0.46%	83.33%	2.32%
Fit	2.51%	50.00%	1.25%	50.00%	1.25%
Profitability	25.96%	24.81%	6.44%	75.19%	19.52%
Inimitability	7.80%	16.67%	1.30%	83.33%	6.50%
Robustness	6.10%	33.33%	2.03%	66.67%	4.07%
Adaptability	10.67%	16.67%	1.78%	83.33%	8.89%
Scalability	16.03%	28.57%	4.58%	71.43%	11.45%
Patentability	8.78%	31.03%	2.72%	68.97%	6.05%
Plausibility	6.03%	83.33%	5.03%	16.67%	1.01%
			29.72%		70.28%

Conclusion

Utilising the analytical hierarchy process as the evaluation tool for the Shepherd Life business model clearly indicates that option B is significantly better than option A.

5.3 Analysing the financial model

“Good plans shape good decisions. That’s why good planning helps to make illusive dreams come true.”
 – Geoffery Fisher. A properly constructed and robust financial model is one of the most important tools to ensure a profitable and therefor a successful company.

During the design of the business model two alternative designs were developed, Option A and Option B. These models will now be compared by using a financial analysis.

Constructing the different financial models

Option A

This option is based on the traditional insurance industry model, as explained in the business model canvas. The key differentiators as reflected in the financial analysis are:

- A head office with regional or decentralised field offices where customers are serviced both for new products as well as maintenance on existing products.
- The communication channel with the customers is paper based where detailed application forms must be filled out that will be submitted to head offices for approval.
- A summary of the financial model of Option A is shown in Table 29 and Figure 14.
- Commissions are paid in advance for a 12 month period.

Table 29: Financial model of Option A.

Option A: Budget and cash flow forecast				Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Item Description	Frequency	Column2									
Number of policies	Cumulative		600	3420	11100	26880	53400	91800	141780	199980	
First Premium revenue	Once off		R 39 600	R 145 200	R 363 000	R 699 600	R 1 115 400	R 1 557 600	R 1 953 600	R 2 211 000	
Recurring revenue	Monthly		R 7 260	R 63 525	R 235 950	R 620 730	R 1 308 615	R 2 348 610	R 3 751 605	R 5 441 370	
Total Revenue			R 46 860	R 208 725	R 598 950	R 1 320 330	R 2 424 015	R 3 906 210	R 5 705 205	R 7 652 370	
Expenses											
Capital Items											
Computer and printer		R 69 000									
Furniture		R 34 000									
Head Office											
Office establishment	Once off		R 136 175	R 170 915	R 342 575	R 692 435	R 1 323 575	R 2 171 075	R 3 273 335	R 4 556 435	
Printing and stationary	Monthly		R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200	
Admin personnel	Monthly		R 45 000	R 45 000	R 45 000	R 45 000	R 90 000	R 90 000	R 90 000	R 90 000	
Policy documents (R22 per document)	Monthly		R 13 200	R 75 240	R 244 200	R 591 360	R 1 174 800	R 2 019 600	R 3 119 160	R 4 399 560	
Promotional items	Monthly		R 23 100	R 24 900	R 26 700	R 28 500	R 30 300	R 32 100	R 33 900	R 35 700	
Rental (30m2 @ R110/m2)	Monthly		R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	
Telephone and internet	Monthly		R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200	
Depreciation											
Computer	Monthly		R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	
Furniture	Monthly		R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	
Field Offices											
Number of offices			3	6	9	12	15	18	21	24	
Office establishment	Once off per office		R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	
Printing and stationary	Monthly		R 2 100	R 4 200	R 6 300	R 8 400	R 10 500	R 12 600	R 14 700	R 16 800	
Office Manager			R 60 000	R 120 000	R 180 000	R 240 000	R 300 000	R 360 000	R 420 000	R 200 000	
Admin personnel	Monthly		R 22 500	R 45 000	R 67 500	R 90 000	R 112 500	R 135 000	R 157 500	R 180 000	
Rental (40m2 @ R110/m2)	Monthly		R 13 200	R 26 400	R 39 600	R 52 800	R 66 000	R 79 200	R 92 400	R 105 600	
Death Claims (Comms paid out)	1.7%		R 5 000	R 2 850	R 9 350	R 22 750	R 45 300	R 77 950	R 120 400	R 169 900	
Number of claims			10	57	187	455	906	1559	2408	3398	
Tablets (No cost)											
Commissions											
Agents Commission	5% of premium for 12 months	5%	R 23 760	R 87 120	R 217 800	R 419 760	R 669 240	R 934 560	R 1 172 160	R 1 326 600	
			R 23 760	R 87 120	R 217 800	R 419 760	R 669 240	R 934 560	R 1 172 160	R 1 326 600	
Total Expenses		Total Expenses	R 268 235	R 466 485	R 873 125	R 1 536 145	R 2 537 115	R 3 780 385	R 5 260 495	R 6 565 335	
Profit / (Loss)		Profit / (Loss)	R -221 375	R -257 760	R -274 175	R -215 815	R -113 100	R 125 825	R 444 710	R 1 087 035	
Cummulative Profit / (Loss)		Cummulative Profit / (Loss)	R -221 375	R -479 135	R -753 310	R -969 125	R -1 082 225	R -956 400	R -511 690	R 575 345	
Cashflow		Cashflow	R -336 745	R -655 055	R -1 078 385	R -1 564 630	R -2 076 860	R -2 476 555	R -2 637 555	R -2 198 305	

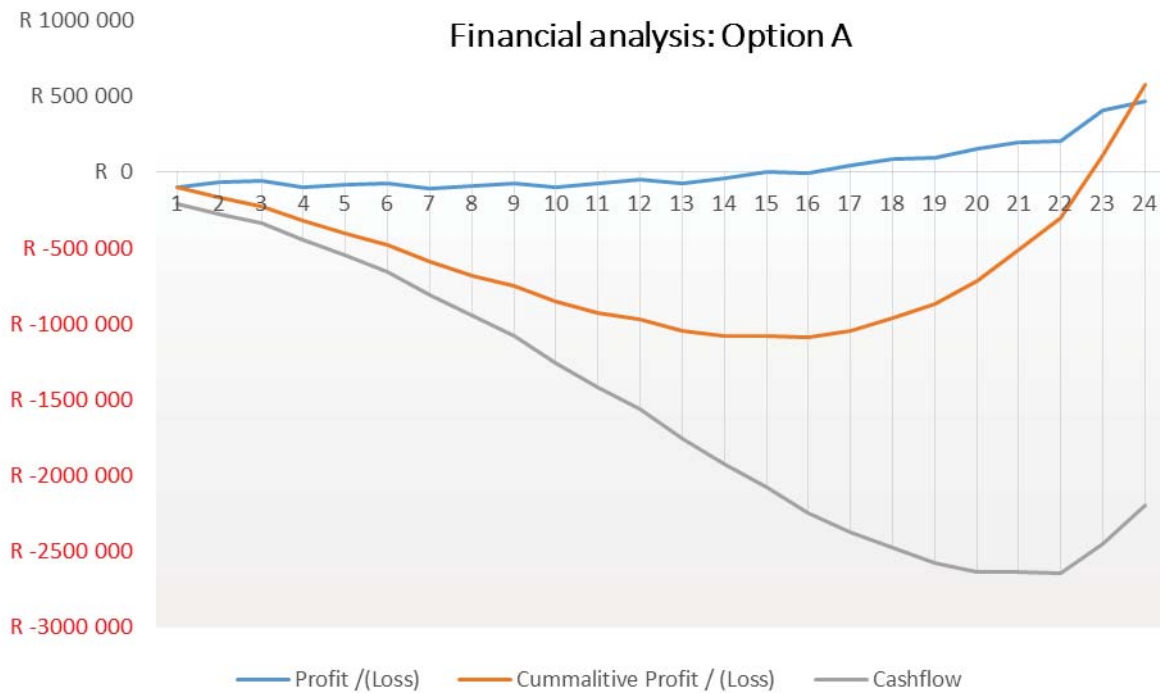


Figure 14: Financial analysis graph for Option A.

Option B

This option is based on the new innovative electronic method of selling policies. The key differentiators as reflected in the financial analysis are:

- Only a very small head office.
- No regional office with the accompanying costs of setup and operation of an office.
- The communication channel with the customers is electronic and no paperwork is involved in the business process.
- Agents and other employees are paid a monthly commission.
- Very little printing costs are involved.
- A summary of the financial model of Option A is shown in Table 30 and Figure 15.

Table 30: Financial model for option B.

Option B: Budget and cash flow forecast for Shepherd Life									
Item Description	Frequency	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Number of policies	Cumulative	600	3420	11100	26880	53400	91800	141780	199980
First Premium revenue	Once off	39600	145200	363000	699600	1115400	1557600	1953600	2211000
Recurring revenue	Monthly	R 7 260	R 63 525	R 235 950	R 620 730	R 1 308 615	R 2 348 610	R 3 751 605	R 5 441 370
Total Revenue		R 46 860	R 208 725	R 598 950	R 1 320 330	R 2 424 015	R 3 906 210	R 5 705 205	R 7 652 370
Expenses									
Capital Items									
Computer and printer		R 23 000							
Furniture		R 17 000							
Head Office									
Office establishment	Once off per office	R 5 000	R 82 800	R 85 500	R 88 200	R 105 900	R 108 600	R 111 300	R 144 000
Printing and stationary	Monthly	R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200
Admin personnel	Monthly	R 45 000	R 45 000	R 45 000	R 45 000	R 60 000	R 60 000	R 60 000	R 90 000
Policy documents (R30 per document)	Monthly								
Rental (30m2 @ R110 /m2)	Monthly	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900
Promotional items	Monthly	R 23 100	R 24 900	R 26 700	R 28 500	R 30 300	R 32 100	R 33 900	R 35 700
FSB fees	Monthly								
Telephone and internet	Monthly	R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200
Depreciation									
Computer	Monthly	R 2 875	R 2 875	R 2 875	R 2 875	R 2 875	R 2 875	R 2 875	R 2 875
Furniture	Monthly	R 2 125	R 2 125	R 2 125	R 2 125	R 2 125	R 2 125	R 2 125	R 2 125
Field Offices									
Nuner of Offices									
Office establishment	Once off per office								
Printing and stationary	Monthly								
Admin personnel	Monthly								
Rental (40m2 @ R110 /m2)	Monthly								
Tablets (No cost as the under writer)									
Commissions									
First months premium		R 45 598	R 194 943	R 542 597	R 1 162 735	R 2 074 714	R 3 244 980	R 4 586 085	R 5 916 098
Agents, Team Leaders, Area Managers, Region Manager	14%	R 39 600	R 145 200	R 363 000	R 699 600	R 1 115 400	R 1 557 600	R 1 953 600	R 2 211 000
Licence Fees	2%	R 3 650	R 30 723	R 110 187	R 282 381	R 580 912	R 1 011 602	R 1 557 131	R 2 150 122
Shepherd IT Solutions	5.0%	R 528	R 4 620	R 17 160	R 45 144	R 95 172	R 170 808	R 272 844	R 395 736
Death Claims (Comms paid out)	1.7%	R 1 320	R 11 550	R 42 900	R 112 860	R 237 930	R 427 020	R 682 110	R 989 340
Number of claims		R 500	R 2 850	R 9 350	R 22 750	R 45 300	R 77 950	R 120 400	R 169 900
		10	57	187	455	906	1559	2408	3398
Total Expenses		R 132 364	R 277 743	R 628 097	R 1 250 935	R 2 180 614	R 3 353 580	R 4 697 385	R 6 060 098
Profit /(Loss)		R -85 504	R -69 018	R -29 147	R 69 395	R 243 401	R 552 630	R 1 007 820	R 1 592 272
Cummalitive Profit / (Loss)		R -85 504	R -154 522	R -183 669	R -114 274	R 129 126	R 681 757	R 1 689 576	R 3 281 849
Cashflow		R -145 749	R -283 192	R -469 369	R -678 279	R -841 884	R -822 648	R -428 414	R 508 199

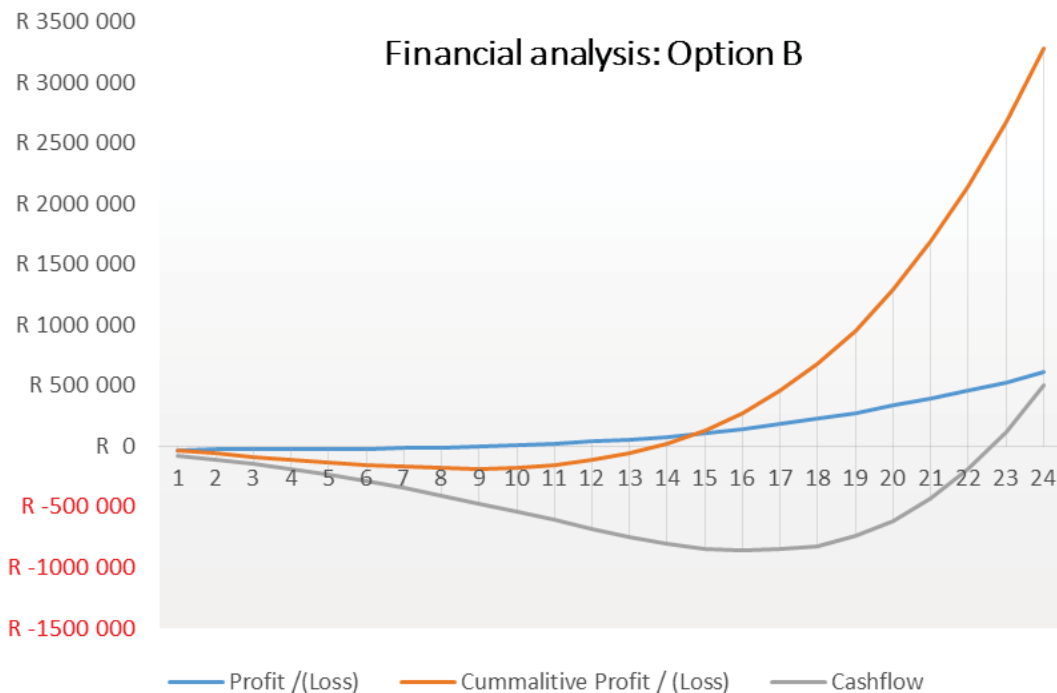


Figure 15: Financial analysis for Option B.

Sales / Revenue scenarios and projections

The sales forecast for both options are the same and is shown in Table 31. The assumptions made for both scenarios are that the implementation is staggered and that each of the agents will be selling on average a total of twenty policies per month.

The excel model that was developed used various variables to test the sensitivity of the models that will be evaluated and compared.

The income streams that makes up the revenue can be broken down as the main member, the spouse and children dependents. In the sales forecast these streams are not shown separate because of the requirements of the product. A child or spouse dependent can only be engaged when a main member policy was sold.

Option A and B (Both options share the same sales forecast)

Table 31: Sale forecast for both models.

Region A																									
	Area 1										Area 2														
RM 1	Area Manager 1	Team Leader 1		Team Leader 2		Team Leader 3		Team Leader 4		Team Leader 5		Area Manager 2	Team Leader 1		Team Leader 2		Team Leader 3		Team Leader 4		Team Leader 5				
	Number of Area Manager	Policies per AM	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Number of Area Manager	Policies per AM	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Agents	Policies per Team Leader	Agents	Policies per Team Leader	
60	1	60	1	60									1												
120	1	120	2	120									1												
180	1	180	3	180									1												
300	1	300	4	240	1	60							1												
420	1	420	5	300	2	120							1												
600	1	540	6	360	3	180							1	60	1	60									
840	1	720	7	420	4	240	1	60					1	120	2	120									
1080	1	900	8	480	5	300	2	120					1	180	3	180									
1380	1	1080	9	540	6	360	3	180					1	300	4	240	1	60							
1740	1	1320	10	600	7	420	4	240	1	60			1	420	5	300	2	120							
2100	1	1560	11	660	8	480	5	300	2	120			1	540	6	360	3	180							
2520	1	1800	12	720	9	540	6	360	3	180			1	720	7	420	4	240	1	60					
2940	1	2040	12	720	10	600	7	420	4	240	1	60	1	900	8	480	5	300	2	120					
3360	1	2280	12	720	11	660	8	480	5	300	2	120	1	1080	9	540	6	360	3	180					
3840	1	2520	12	720	12	720	9	540	6	360	3	180	1	1320	10	600	7	420	4	240	1	60			
4260	1	2700	12	720	12	720	10	600	7	420	4	240	1	1560	11	660	8	480	5	300	2	120			
4680	1	2880	12	720	12	720	11	660	8	480	5	300	1	1800	12	720	9	540	6	360	3	180			
5220	1	3060	12	720	12	720	12	720	9	540	6	360	1	2160	12	720	10	600	7	420	4	240	3	180	
5580	1	3180	12	720	12	720	12	720	10	600	7	420	1	2400	12	720	11	660	8	480	5	300	4	240	
5940	1	3300	12	720	12	720	12	720	11	660	8	480	1	2640	12	720	12	720	9	540	6	360	5	300	
6240	1	3420	12	720	12	720	12	720	12	720	9	540	1	2820	12	720	12	720	10	600	7	420	6	360	
6480	1	3480	12	720	12	720	12	720	12	720	10	600	1	3000	12	720	12	720	11	660	8	480	7	420	
6720	1	3540	12	720	12	720	12	720	12	720	11	660	1	3180	12	720	12	720	12	720	9	540	8	480	
6900	1	3600	12	720	12	720	12	720	12	720	12	720	1	3300	12	720	12	720	12	720	10	600	9	540	
7020	1	3600	12	720	12	720	12	720	12	720	12	720	1	3420	12	720	12	720	12	720	11	660	10	600	

Table 32: Company revenue.

Company revenue																											
Month	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	
1																										R -	
2	R 1 815																										R 1 815
3	R 3 630	R 1 815																									R 5 445
4	R 5 445	R 3 630	R 1 815																								R 10 890
5	R 9 075	R 5 445	R 3 630	R 1 815																							R 19 965
6	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																						R 32 670
7	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																					R 50 820
8	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																				R 76 230
9	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																			R 108 900
10	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																		R 150 645
11	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																	R 203 280
12	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815																R 266 805
13	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815															R 343 035
14	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815														R 431 970
15	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815													R 533 610
16	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815												R 649 770
17	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815											R 778 635
18	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815										R 920 205
19	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815									R 1 078 110
20	R 168 795	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815								R 1 246 905
21	R 179 685	R 168 795	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815							R 1 426 590
22	R 188 760	R 179 685	R 168 795	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815						R 1 615 350
23	R 196 020	R 188 760	R 179 685	R 168 795	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815					R 1 811 370
24	R 203 280	R 196 020	R 188 760	R 179 685	R 168 795	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815				R 2 014 650
25	R 208 725	R 203 280	R 196 020	R 188 760	R 179 685	R 168 795	R 157 905	R 141 570	R 128 865	R 116 160	R 101 640	R 88 935	R 76 230	R 63 525	R 52 635	R 41 745	R 32 670	R 25 410	R 18 150	R 12 705	R 9 075	R 5 445	R 3 630	R 1 815			R 2 223 375

If the average selling price of a policy is set at R110 per policy the revenue will be received on a monthly basis, as shown in Table 32. No revenue is reflected in month 1 as the full premium is paid to the agent.

Capital spending / requirements

The capital required for the establishment of the business comprises of office establishment and computer equipment. The capital requirements remain the same for each of the options with the only difference that there are no regional offices required for option B and therefore fewer printers and computers needs to be purchased. The office establishment is treated as expenses as the office space will be rented. The capital requirements can be seen in Table 33 and 34 for each of the options.

Table 33: Capital requirements for Options A.

Item	Quantity	Description	Price	Total
Computer	1	Server and 1 desktop	R 18 000	R 18 000
Printer	1	1 x for head office	R 5 000	R 5 000
Head office furniture	1	Reception desk	R 2 100	R 2 100
Head office furniture	1	Boardroom desk	R 5 800	R 5 800
Head office furniture	4	Chairs	R 1 200	R 4 800
Head office furniture	2	Desks	R 1 650	R 3 300
Head office furniture	3	Book shelves	R 1 000	R 3 000
Total				R 42 000

Table 34: Capital requirement for Option B.

Item	Quantity	Description	Price	Total
Computer	3	Server and 1 desktop	R 18 000	R 54 000
Printer	3	1 x for head office	R 5 000	R 15 000
Head office furniture	1	Reception desk	R 2 100	R 2 100
Head office furniture	1	Boardroom desk	R 5 800	R 5 800
Head office furniture	4	Chairs	R 1 200	R 4 800
Head office furniture	2	Desks	R 1 650	R 3 300
Head office furniture	3	Book shelves	R 1 000	R 3 000
Total				R 88 000

Expenses

Expenses are detailed in Table 35 and Table 36 and is summarised on quarterly level. The biggest contributors to the difference in expenses between the two models are printing and the regional office establishment cost in the case of option A. In option B the commission is the biggest differentiator.

Table 35: Expenses for model A.

Item Description	Frequency	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Expenses									
Capital Items									
Computer and printer		R 69 000							
Furniture		R 34 000							
Head Office		R 134 375	R 160 655	R 309 275	R 611 795	R 1 163 375	R 1 895 675	R 2 847 995	R 3 956 495
Office establishment	Once off	R 30 000							
Printing and stationary	Monthly	R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200
Admin personnel	Monthly	R 45 000	R 45 000	R 45 000	R 45 000	R 90 000	R 90 000	R 90 000	R 90 000
Policy documents (R19 per document)	Monthly	R 11 400	R 64 980	R 210 900	R 510 720	R 1 014 600	R 1 744 200	R 2 693 820	R 3 799 620
Promotional items	Monthly	R 23 100	R 24 900	R 26 700	R 28 500	R 30 300	R 32 100	R 33 900	R 35 700
Rental (30m2 @ R110 /m2)	Monthly	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900
Telephone and Internet	Monthly	R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200
Depreciation									
Computer	Monthly	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625
Furniture	Monthly	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250
Field Offices		R 108 300	R 208 450	R 312 750	R 423 950	R 544 300	R 674 750	R 815 000	R 682 300
Number of offices		3	6	9	12	15	18	21	24
Office establishment	Once off per office	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000
Printing and stationary	Monthly	R 2 100	R 4 200	R 6 300	R 8 400	R 10 500	R 12 600	R 14 700	R 16 800
Office Manager		R 60 000	R 120 000	R 180 000	R 240 000	R 300 000	R 360 000	R 420 000	R 200 000
Admin personnel	Monthly	R 22 500	R 45 000	R 67 500	R 90 000	R 112 500	R 135 000	R 157 500	R 180 000
Rental (40m2 @ R110 /m2)	Monthly	R 13 200	R 26 400	R 39 600	R 52 800	R 66 000	R 79 200	R 92 400	R 105 600
Death Claims (Comms paid out)	1.7%	R 500	R 2 850	R 9 350	R 22 750	R 45 300	R 77 950	R 120 400	R 169 900
Number of claims		10	57	187	455	906	1559	2408	3398
Tablets (No cost)									
Commissions		R 23 760	R 87 120	R 217 800	R 419 760	R 669 240	R 934 560	R 1 172 160	R 1 326 600
Agents Commission	5% of premium for 12 months	R 23 760	R 87 120	R 217 800	R 419 760	R 669 240	R 934 560	R 1 172 160	R 1 326 600
Total Expenses		R 266 435	R 456 225	R 839 825	R 1 455 505	R 2 376 915	R 3 504 985	R 4 835 155	R 5 965 395

Table 36: Expenses for model B.

Item Description	Frequency	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Expenses									
Capital Items									
Computer and printer		R 69 000							
Furniture		R 34 000							
Head Office		R 134 375	R 160 655	R 309 275	R 611 795	R 1 163 375	R 1 895 675	R 2 847 995	R 3 956 495
Office establishment	Once off	R 30 000							
Printing and stationary	Monthly	R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200
Admin personnel	Monthly	R 45 000	R 45 000	R 45 000	R 45 000	R 90 000	R 90 000	R 90 000	R 90 000
Policy documents (R19 per document)	Monthly	R 11 400	R 64 980	R 210 900	R 510 720	R 1 014 600	R 1 744 200	R 2 693 820	R 3 799 620
Promotional items	Monthly	R 23 100	R 24 900	R 26 700	R 28 500	R 30 300	R 32 100	R 33 900	R 35 700
Rental (30m2 @ R110 /m2)	Monthly	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900	R 9 900
Telephone and Internet	Monthly	R 1 050	R 1 500	R 1 950	R 2 400	R 2 850	R 3 300	R 3 750	R 4 200
Depreciation									
Computer	Monthly	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625	R 8 625
Furniture	Monthly	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250	R 4 250
Field Offices		R 108 300	R 208 450	R 312 750	R 423 950	R 544 300	R 674 750	R 815 000	R 682 300
Number of offices		3	6	9	12	15	18	21	24
Office establishment	Once off per office	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000	R 10 000
Printing and stationary	Monthly	R 2 100	R 4 200	R 6 300	R 8 400	R 10 500	R 12 600	R 14 700	R 16 800
Office Manager		R 60 000	R 120 000	R 180 000	R 240 000	R 300 000	R 360 000	R 420 000	R 200 000
Admin personnel	Monthly	R 22 500	R 45 000	R 67 500	R 90 000	R 112 500	R 135 000	R 157 500	R 180 000
Rental (40m2 @ R110 /m2)	Monthly	R 13 200	R 26 400	R 39 600	R 52 800	R 66 000	R 79 200	R 92 400	R 105 600
Death Claims (Comms paid out)	1.7%	R 500	R 2 850	R 9 350	R 22 750	R 45 300	R 77 950	R 120 400	R 169 900
Number of claims		10	57	187	455	906	1559	2408	3398
Tablets (No cost)									
Commissions		R 23 760	R 87 120	R 217 800	R 419 760	R 669 240	R 934 560	R 1 172 160	R 1 326 600
Agents Commission	5% of premium for 12 months	R 23 760	R 87 120	R 217 800	R 419 760	R 669 240	R 934 560	R 1 172 160	R 1 326 600
Total Expenses		R 266 435	R 456 225	R 839 825	R 1 455 505	R 2 376 915	R 3 504 985	R 4 835 155	R 5 965 395

5.4 Evaluating the financial model

A financial model was developed for both options for a 24 month period in Microsoft excel. The following items were included in the model:

- Sales forecast.
- Revenue forecast based on the identified commission variables.
- Capital expenditure and.
- Expenses.
- Profit
- Cash flow

To increase the understanding of the difference between the financial models the main differences between the financial models are shown in Table 37.

Table 37: Main differences between the two options summarised.

Criteria	Option A	Option B
Sales forecast	The same sales forecast is used in both models.	
Revenue	The same premium is used in both models.	
Capital requirements	Head office must be of high standard. Field office establishment. Furniture. Computer and printer.	Head office can be of medium standard. No field offices. No computers or printers. No furniture.
Expenses	Commissions are paid annually in advance. Application forms are printed.	Commissions are paid monthly. Application done electronically.

The models were then evaluated in respect of the two main criteria's that drives any financial model being the profitability of the models, Figure 16 and 17, as well as cash flow as shown in Figure 18.

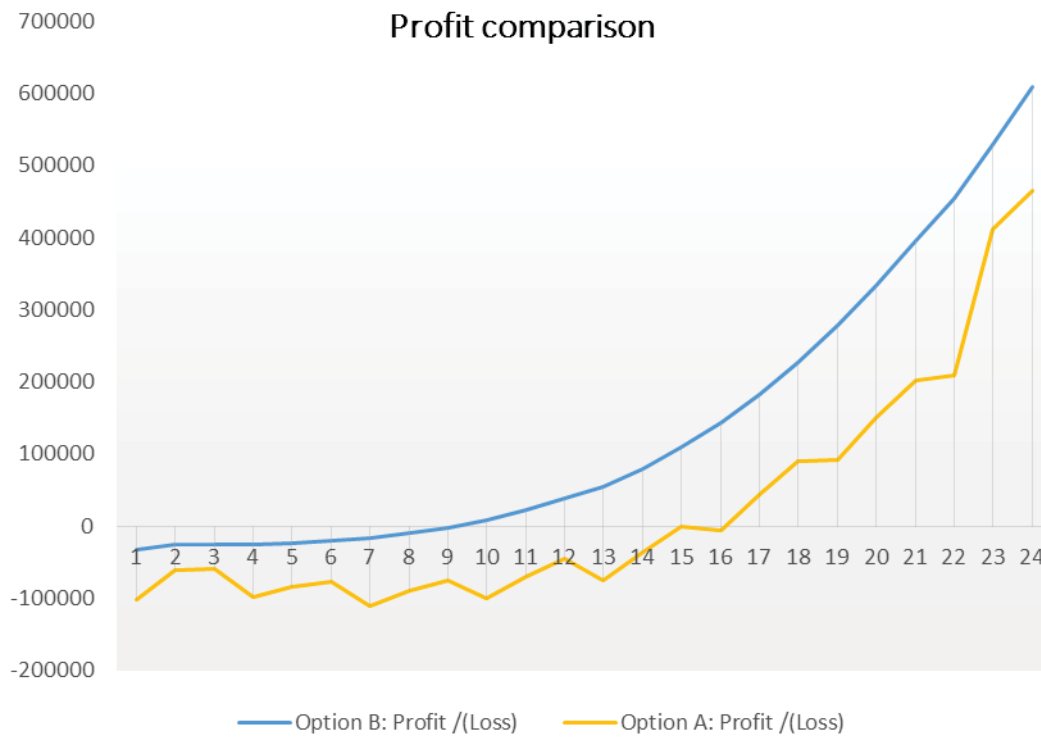


Figure 16: Graph comparing the profitability of both models.

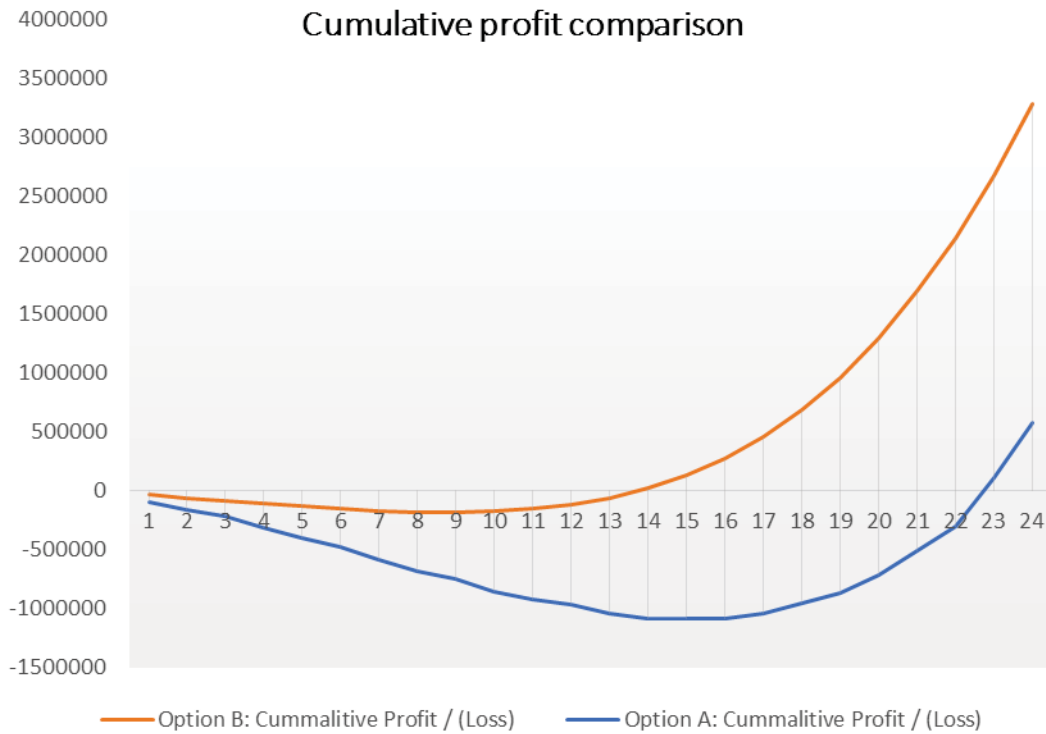


Figure 17: Cumulative profitability comparison graph.

It is clear in Figure 18 that both options are running on a negative cumulative profit during early stages of implementation but option A only reaches breakeven in month 23 whereas option B is already on breakeven in month 14.

Cash flow

The cash flow shows a similar pattern where the cash flow requirement for Option A is much higher than Option B. The main reason for the bigger cash flow requirements is the additional capital required for the establishment of field offices in Option B.

Financial model summary

It is therefore concluded that option B is in all financial respects outperforming option A.

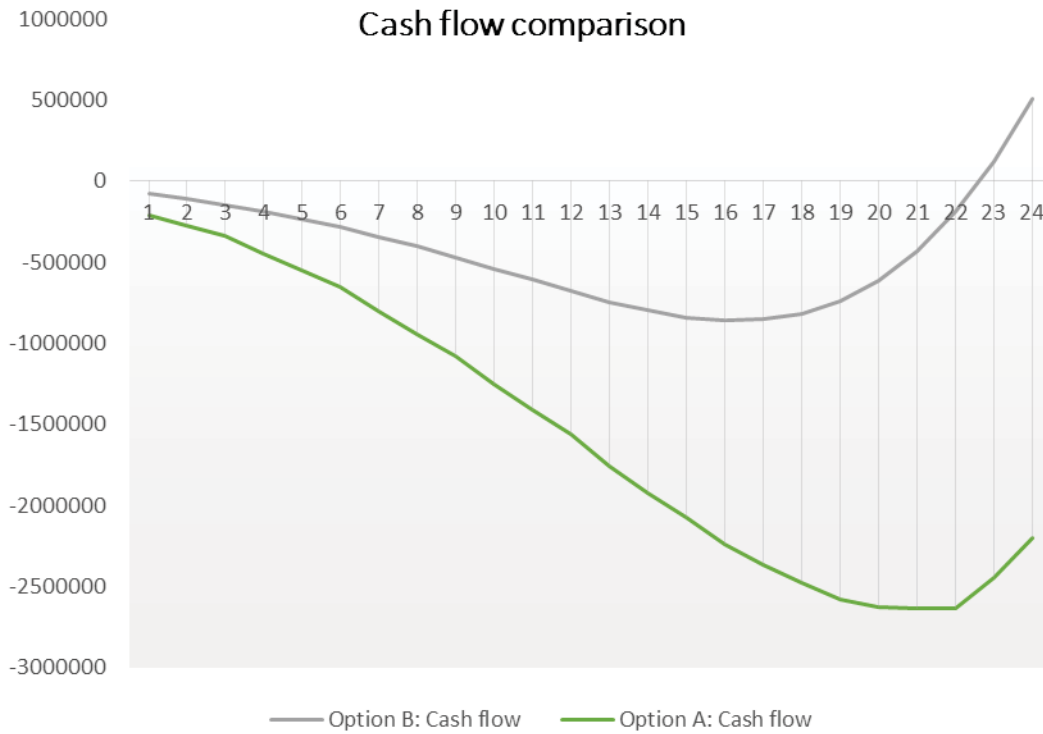


Figure 18: Cash flow comparison graph.

Conclusion

The business model that proved to be superior during the evaluation of the business model canvas as well as the financial analysis is Option B. This model is targeting a very niche market segment. The remuneration model that will be used rewards agents with the full premium in month one and the team leaders, area managers and regional managers continuously over a longer period of time ensuring a motivated workforce because their success depends on their own commitment. This model proves to be superior in all financial aspects as shown in Figure 19.

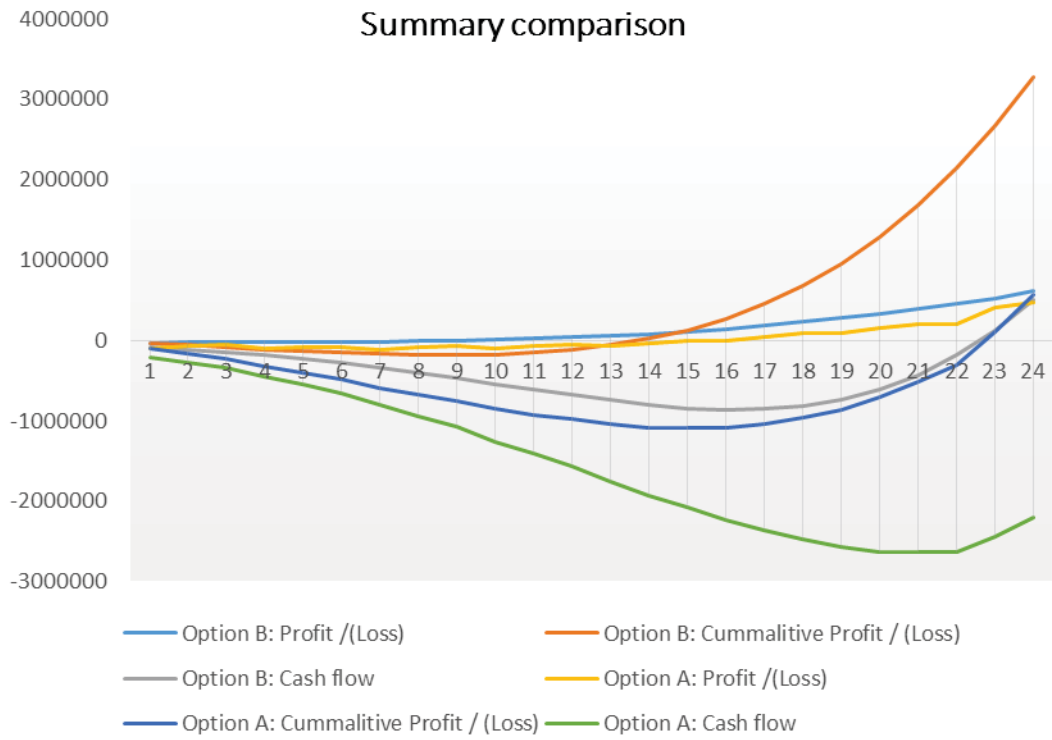


Figure 19: Summary comparison graph.

5.5 Differentiate the chosen model

After the optimal model was chosen it is important to ensure that this model is optimised to ensure that it is differentiated from the competitors. Value discipline ranking and the six P's of the marketing mix was used to optimise Option B, which is the chosen model.

Value discipline ranking

The main focus of value disciplines is to disassemble three very different business types that may coexist within one organisation. The idea is to choose one of these disciplines that describe the character of your company the best and act upon this chosen value consistently and robustly.

The disciplines are perfectly described by Michael Treacy and Fred Wiersema:

“Operational excellence: Superb operations execution provides a reasonable quality at a very low price. The focus is often on efficiency, streamlining operations, supply chain management, no-frills and volume counts. Most large international operations are working out of this discipline.

Product leadership: Very strong in innovation and brand marketing, operating in dynamic markets. The focus is on development, innovation, design, time-to-market and high margins in a short life frame.

Customer intimacy: Excel in customer attention and customer service. Tailor their products and services to individual or almost individual customers. Focus is on CRM, deliver products and services on time and above customer expectations, lifetime value concepts, reliability and being close to the customer”.

Business model B

The key activities listed in the business model canvas was used to rank the disciplines according to importance in Table 38.

Table 38 Value discipline ranking for business model B.

<p>1. Product leadership/ innovation</p>	<ul style="list-style-type: none"> • Design funeral policies as a product. Developing unique and well differentiated products to serve a wide range of customers with no age or health restrictions. • Well positioned pricing structure. • Designing and implementation of an efficient way to approach the market by utilising state of the art technology.
<p>2. Customer intimacy/ customer relationship management.</p>	<ul style="list-style-type: none"> • Provide the service to the customers in the comfort of their homes. • Not restricted by traditional business hours. • Well trained field agents reaching out to the customer. • Through the utilisation of technology, administration are taken care of by proficient back-office staff.
<p>3. Operational excellence.</p>	<ul style="list-style-type: none"> • No field offices will be necessary improving flexibility and decreasing costs. • High volume sales is inhibited as the agents can be at only one client at a time.

The marketing mix

The marketing mix of a company includes all the actions or tactics that a company uses to advertise their product in the market. The six most important elements are price, product, promotion and place, people and processes and are personalised for the model to be implemented for Shepherd Life in Table 39 below (Managementstudyguide.com, 2015).

Table 39: Elements of the Marketing mix personalised for Shepherd Life.

Element	Differentiating technique
Price	Prices are very competitive. Better benefits are available than that of the competition. The target market is highly illiterate and cumbersome application forms can discourage applicants. The tablet simplifies this process.
Product	The client has transportation challenges and the effectiveness of the death claim process differentiates it from the competition. The product is marketed as a funeral policy with very few restrictions.
Promotion	The product will be promoted through: <ul style="list-style-type: none"> • Word of mouth. If death claims are paid timeously the potential customer will soon learn that the product can be differentiated from the competition. • Fliers that will be distributed at the SASSA pay offices when the grants are paid out. The competitors have alternative methods of advertising as they have a different target market: <ul style="list-style-type: none"> • Billboards. • Internet. • SMS campaigns.
Place	Shepherd Life is very mobile because of the technology and can advertise and sell anytime anywhere. Home visits is an important channel to the market.
People	Agents, area managers and team leaders will be responsible to sell and advertise the product. All the people in the identified target markets are potential customers.
Process	Agents and team leaders are responsible to reach out to the target market and will sell the policies by means of the tablet. Agents will be incentivised through competitions for example: The agent that sells the most policies by the end of the month will win a television.

Conclusion

After comparing two different models using the business model canvas and a financial analysis, the models were evaluated using the analytical hierarchy process and Option B was chosen as the optimal model to implement for Shepherd Life. To ensure that the model is differentiated from the competitors a value discipline ranking method was used and product leadership and innovation was chosen as the most important aspect of the business.

6. Conceptual design for the tablet application

6.1 Design the tablet application

For the tablet application Shepherd Life has partnered with Regent Life as the underwriter. Shepherd Life established a unique system requirement utilising the latest technology and functionality. Tablets were provided to agents, so that the capture of new policies and claims against the policy in the event of death, can be processed in a more user-friendly and simpler manner. Development of the functionality on the tablets, as well as the interface between the tablets and Shepherd Life member database system was required. The Shepherd Life member database is utilised as the main data repository and managed by Shepherd Life head office.

To ensure successful development of an application for the tablet the student worked closely with the developers to ensure the most optimal business solution for the company. Although the developers were responsible for the technical aspects of the application, the student was responsible for the logic behind the development and finally the design of the application.

Workshops, as discussed before, were held to ensure a mutual understanding of what was required and what needed to be done. The first workshop was held with the business owners and the developers. The main topic under discussion was the interfaces required. The tablet software and design was discussed. This included the requirements, the logic behind it and all necessary elements that were important to include in the application. The second workshop was held with Regent. A greater understanding was gained concerning the different products that will be provided to customers.

The conceptual design addresses two areas namely the functional requirements and non-functional requirements.

Functional requirements

Functional requirements can be described as certain criteria that specify a behaviour or function of the system or process. It describes what the business solution, in this case the tablet application, “must have” (ReQtest, 2012).

Non-functional requirements

Non-functional requirements can be specified as criteria used to support the operation of a system or process. It covers all the remaining requirements not covered by the functional requirements (ReQtest, 2012).

6.1.1 Functional requirements

Business rules

- The client can be of any age.
- He/she can be in any health condition.
- He/she must be dependent on a social grant.

Shepherd Life member database information requirements

- Registration of agents.
- Recording all data from the tablets.
- Manage statuses of policies with underwriter.
- Calculates commissions.
- Provide for payment of agents, team leaders and area managers.
- Login screen
 - Authentication of users during sign-on.
 - Password management.
- Interfaces with tablet and underwriter database.
- Backup of data to conform to legal or regulatory requirements.

Tablet application

- Login screen.
 - Authentication of users during sign-on.
 - Password management.
- Policies
 - Selling of a new policy to a customer.
 - Providing additional information regarding the new policy.
- Claims
 - Managing of death claim.
 - Providing additional information regarding the death claim.
- Management information (reporting).
- Helpdesk.
- Encryption of data on tablet.

System interaction

The system will include the interaction between the 3 different systems:

- Tablet.
- Shepherd Life member database system.
- Regent Life system.

Operation of the tablet

A. Agent login

The login name will be the agent's ID number and the password will be created on Shepherd Life. The password will then be communicated to the agent. The agent can scan their ID number to access the screen.

B. Agent action

The agent can choose to either (1) load a new policy, (2) use the help desk, (3) watch the help video or (4) processing of a death claim.

(1) Loading a new policy

The Shepherd Life engagement interface is utilised to upload policy details that have been captured on the tablet.

The following steps detail the full process of loading a new policy, although this document will only focus on step 1:

1st Step: Data is loaded onto the tablet:

- The agent will load this data onto the tablet. All new policies will be processed via tablets.

2nd Step: New policy data is interfaced from tablet to Shepherd Life:

- Interface between tablet and Shepherd Life is real-time, or when the agent has internet access.

(2) Details to load a new policy screen.

See Table 41 for details to load a new policy.

(3) Help Desk Screen

The agent can use this screen to keep track of the statuses of all policies which the agent has sold. The agent can also email Regent if they have any queries or select to submit a claim on a specific policy/application number.

(4) Watch the help video

An information video is available to the agent to assist them in the operation of the application.

(5) Process a policy (death) claim – via tablet

1st Step: Data is loaded onto the tablet:

- The agent will capture a claim onto the tablet. All claims will be processed via tablets or directly initiated via the Regent system.

2nd Step: Claims data is interfaced from tablet to Shepherd Life:

- Interface between tablet and Shepherd Life is real-time, or when the agent has internet access.

See Table 42 for logic behind the death claim.

C. Send extra details for new policy

This function will be required when Regent requests additional documents and information. It will apply to new policy applications. A similar screen will also be set up for policy claims.

See Table 43 for the logic of sending extra details of a new policy.

D. Send of extra images for claims

This function will be required when Regent requests additional documents and information. It will apply to claims submissions.

See Table 44 for the logic behind sending extra details for claims.

Interface updates

Interface between tablet and Shepherd Life

- This will be a real-time update or
- Whenever the agent has internet access.

The interface between Shepherd Life and Regent

- Shepherd Life can push data to the Regent file transfer protocol (ftp) site, on a real-time basis, although Regent has requested that it is only sent through 3 times a day. This will include all images and video recordings.
- Regent will read the batch updates 3 times a day and provide feedback on the status of the application.

Funeral policy products

The different policy options available to clients can be seen in Table 40.

Table 40: Policy options of the funeral policy product.

AGE RANGE	OPTION 1 TOTAL BENEFIT	OPTION 2 TOTAL BENEFIT	OPTION 3 TOTAL BENEFIT	OPTION 4 TOTAL BENEFIT	OPTION 5 TOTAL BENEFIT	OPTION 6 TOTAL BENEFIT
Premium Payable	60	80	100	110	120	130
18-64	7200	9500	11600	12600	13600	14650
65-69	7000	9200	11250	12150	13050	13950
70-79	3600	4750	5750	6250	6750	7250
80 years and above	2700	3650	4400	4750	5100	5450

6.1.2 Non-functional requirements

Scalability

Each tablet operates as a standalone unit but interaction with the member database should not negatively impact on any of the other tablet's performance. The member database, network as well as hardware infrastructure must be designed to be able to cope with increasing volumes.

Security of data

- The security of data is important and specific measures must be put in place.
- Data between the tablet and Shepherd Life will be encrypted, but not between Shepherd Life and Regent as both member databases will be hosted in the same secure environment.
- Agents should not see confidential policy data after the new policy application has been submitted. New policy data will be automatically deleted from the tablet once the data has been successfully sent to the Shepherd Life member database.

Testing

All deliverables will be thoroughly tested. The usability of the tablet will be tested by means of questionnaires that will be filled out by agents.

Performance

There are no initial performance requirements for this solution.

Maintainability

The tablet software must be updated and improved regularly.

6.1.3 Detailed tablet application design

Figure 20 is a graphical representation of the approach for the design of tablet application to clearly demonstrate the logic behind the design process (Bentley, Whitten and Randolph, 2007). The following section is a detailed tablet design that was done.

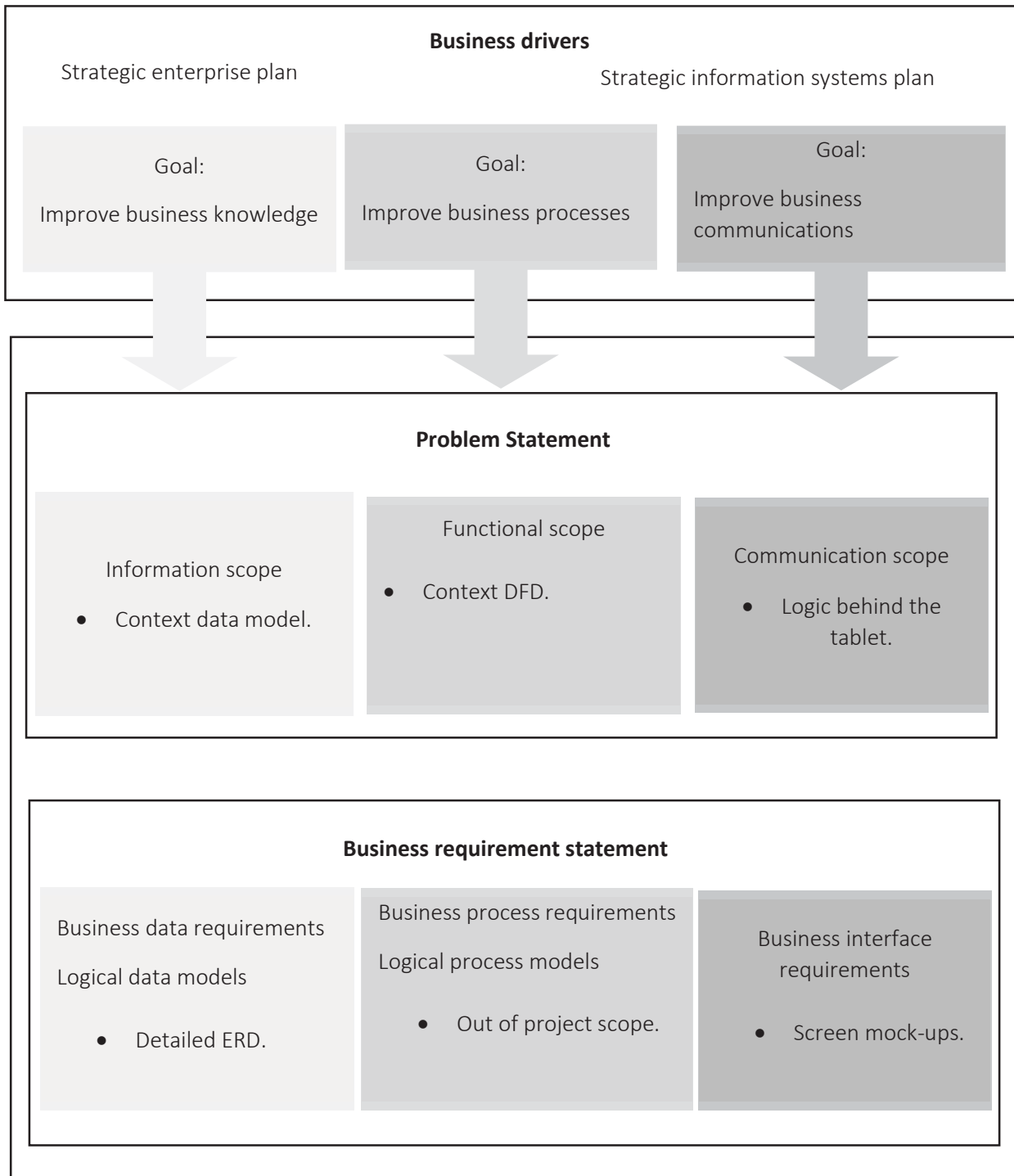


Figure 20: Graphical representation of project approach for the tablet application.

Business drivers

The business knowledge, processes and communication was improved by looking at the information system as a whole. The first step is to complete the statement of work, the second is to complete the business requirements and the final step is to design the database and prototypes.

Problem statement

To complete the statement of work for the information, functional and communication scope, workshops were held with the business owners, the business analysts and the technical developers and database administrators to ensure that everybody involved understands the goal and expected results.

Information scope

- Context data model for Shepherd Life

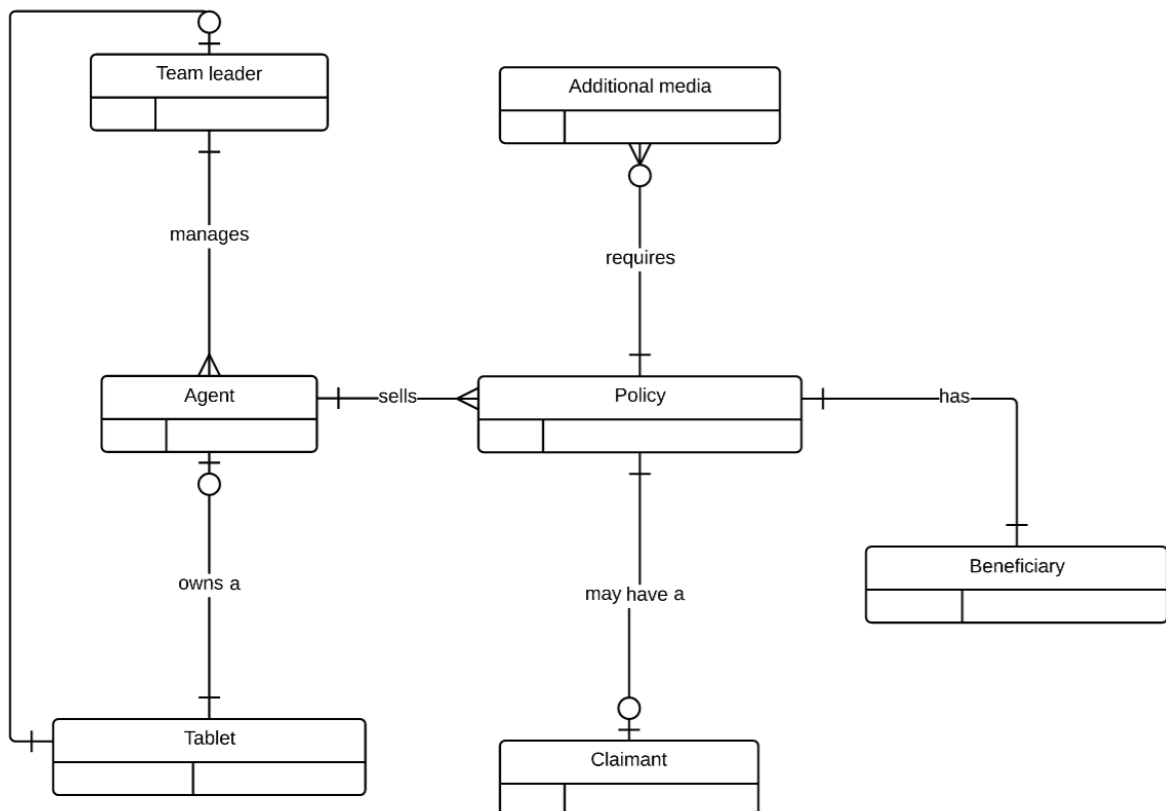


Figure 21: Context data model.

Functional scope

- Context DFD for the tablet application

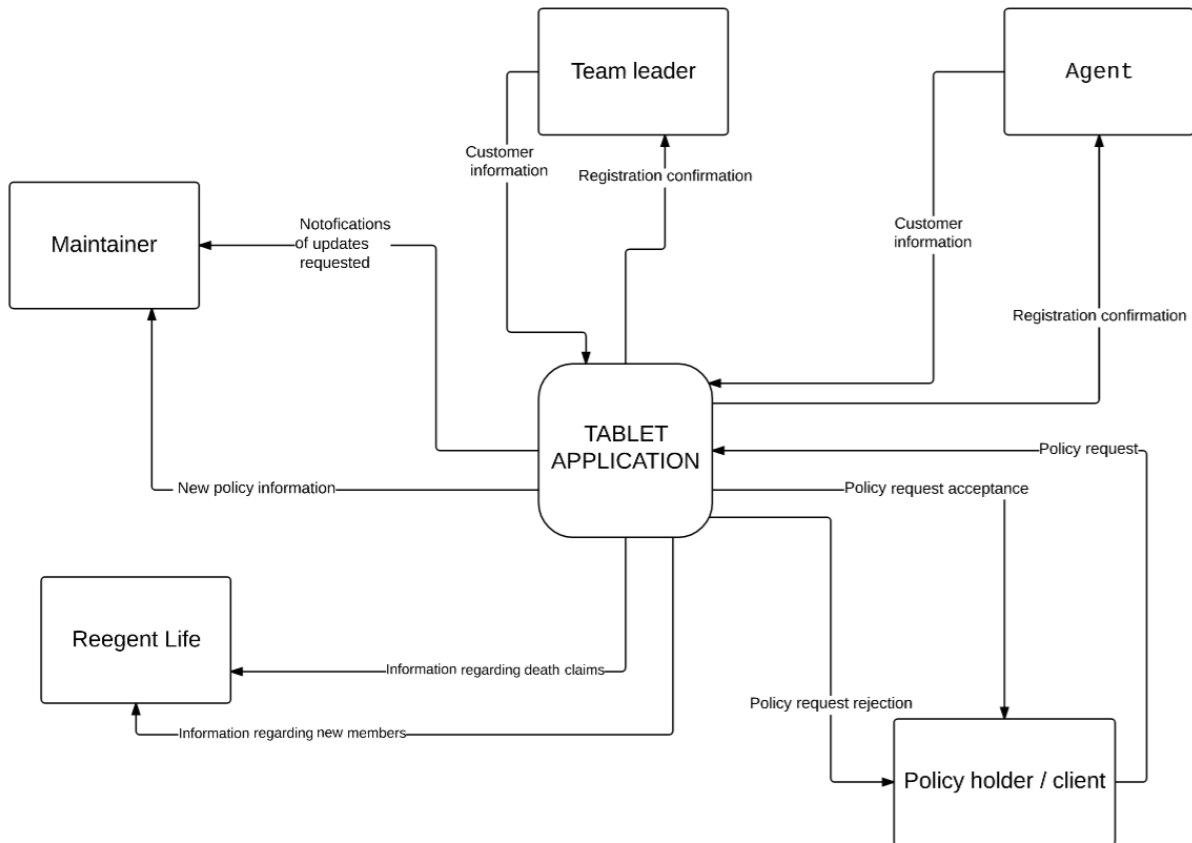


Figure 22: Context DFD for the tablet application.

Communication scope

- Logic behind the tablet

Table 41: Details to load a new policy.

	SECTION	DETAILS
1a	Policy holder details	<ul style="list-style-type: none"> • Photo: The agent will take a photo of the policy holders ID document that will be send to Shepherd Life.
1b		<ul style="list-style-type: none"> • ID number: This is a mandatory field that needs to be captured by the agent. • A validation is applied to ensure that the format of the captured ID number is correct. • The tablet will calculate the new Policy holder's age.
	Premium option	All the plan options will reflect that are available for the relevant age group. The agent will select one of the six available options.
1c	Policy holder details	<ul style="list-style-type: none"> • Name: The name of the policy holder must be completed as it is a mandatory field that regent requires.
1d		<ul style="list-style-type: none"> • Surname: Not a required field as per regent. Shepherd Life will populate with the ID number.
1e		<ul style="list-style-type: none"> • Preferred method of communication: Cell phone, Shepherd hand delivery or policy holder's address.
1f		<ul style="list-style-type: none"> • Cell phone number: Mandatory if cell phone is the preferred method of communication.
1g		<ul style="list-style-type: none"> • Policy holder's address: If the preferred method of communication is the policy holder's address, then then address and the cell phone number is mandatory.
2a	Beneficiary details for both beneficiaries	<ul style="list-style-type: none"> • Name: Required field that the agent must complete. The institution must be completed in the surname field on the tablet.
2b		<ul style="list-style-type: none"> • Surname: Optional field that can be completed by the agent.
2c		<ul style="list-style-type: none"> • Relationship: Mandatory field that must be selected by the agent.
2d		<ul style="list-style-type: none"> • Date of birth: Optional field that can be completed by the agent.
3a	Client advice records	<ul style="list-style-type: none"> • Needs established: Funeral expenses will be a field underneath the section and the agent will need to identify whether this need is in place, in need, or a shortfall.
3b		<ul style="list-style-type: none"> • Affordability analysis: This section is only to clarify that the total current insurance deductions is less than 10% of policy holder's gross income. The selection will be defaulted to YES. • The old age grant is currently set at R1410 per month and the maximum premium that can be selected is R130.

3c		<ul style="list-style-type: none"> • Recommendation: After the needs and affordability fields are completed then the tablet will populate the recommendation field to say that the Shepherd Life Funeral Plan is recommended for the policy holder. This section will be defaulted to YES.
3d		<ul style="list-style-type: none"> • Client declaration: This section lists questions that the agent must ask the policy holder (Yes/No). If 'No' is selected then a 'Why Not?' comment is to be captured. • Replacement question: The agent will select YES/NO. YES - if the policy holder wants to do this application to replace his/her current policy. NO – If this is a new application and will not replace a current policy. If the agent selects YES then the new policy application will be done directly via Regent.
4	Application number	<ul style="list-style-type: none"> • Application number from the physical form is to be captured. The Tablet will prefix SLFP (Shepherd Life Funeral Policy). • A photo must be taken of the application form, clearly showing the application number.
5	Video recording:	Short video clip that must be recorded so that the agent can ask if the policy holder agrees with all the terms and conditions as stated in the application form. The following message will reflect on the tablet next to the video recording section: "Please hold-up this page and state in the video recording if you understand and agree to all the declarations set out on page1 of your policy document." Then the policy holder can say 'Yes' in the video.

Table 42: Details to process a death claim screen.

	SECTION	DETAILS
1	Policy number / application number	<ul style="list-style-type: none"> • This is the Regent number that uniquely identifies this policy. • Claims are to be allowed even though the policy has not yet been accepted by Regent. But as the generated policy number has not yet been received from Regent, the application number (Watermark number) is to be sent through instead of the policy number.
2	Name	Will be defaulted from the policy / application number selected
3	Surname	Will be defaulted from the policy / application number selected.
5	Copy of death certificate	Certified copy of death certificate.
6	Copy of deceased ID	Certified copy of deceased policy holder's ID.
7	Copy of BI form	<p>This is the Dr's Death Certificate (can be 4 pages)</p> <p>Copy of BI-1663 OR DHA-1663</p> <p>OR Copy of BI-1680 OR DHA-1680</p>

	SECTION	DETAILS
8	ID (ID image of Claimant)	Certified copy of the claimant's ID.
9	Copy of Claimant's Bank Statement	Mandatory document that needs to be submitted.
10	Contact number	Optional field.
11	Email address	Optional field.
12	Video recording	The agent will ask the claimant if they are truly the beneficiary to the policy plan and explain the consequences if the claim is not valid.

Table 43: Send extra details for new policy screen.

SECTION	DETAILS
Resending of extra details	<p>For new policies, allowance needs to be made for the following scanned documents to be resent to Shepherd Life:</p> <ul style="list-style-type: none"> • Photo of the policy holder's ID. • Photo of the policy holder himself. • Photo of the application number (Watermark number on the application booklet). • Video recording. <p>For auditing and history purposes, these additional images will not replace the original documents, but be stored as additional documents.</p> <p>If images are resent again, then the additional documents will be replaced.</p>

Table 44: Send extra details for claims screen.

	SECTION	DETAILS
1a	Resending of extra details	<p>For claims, allowance needs to be made for the following scanned documents to be resent to Shepherd Life</p> <ul style="list-style-type: none"> • Photo of the certified copy of the deceased death certificate • Photo of the certified copy of the deceased ID document • Photo of the BI form • Photo of the certified copy of the claimants ID • Photo of the claimants bank statements • Video recording

Business requirements statement

Business data requirements

- Detailed ERD for Shepherd Life

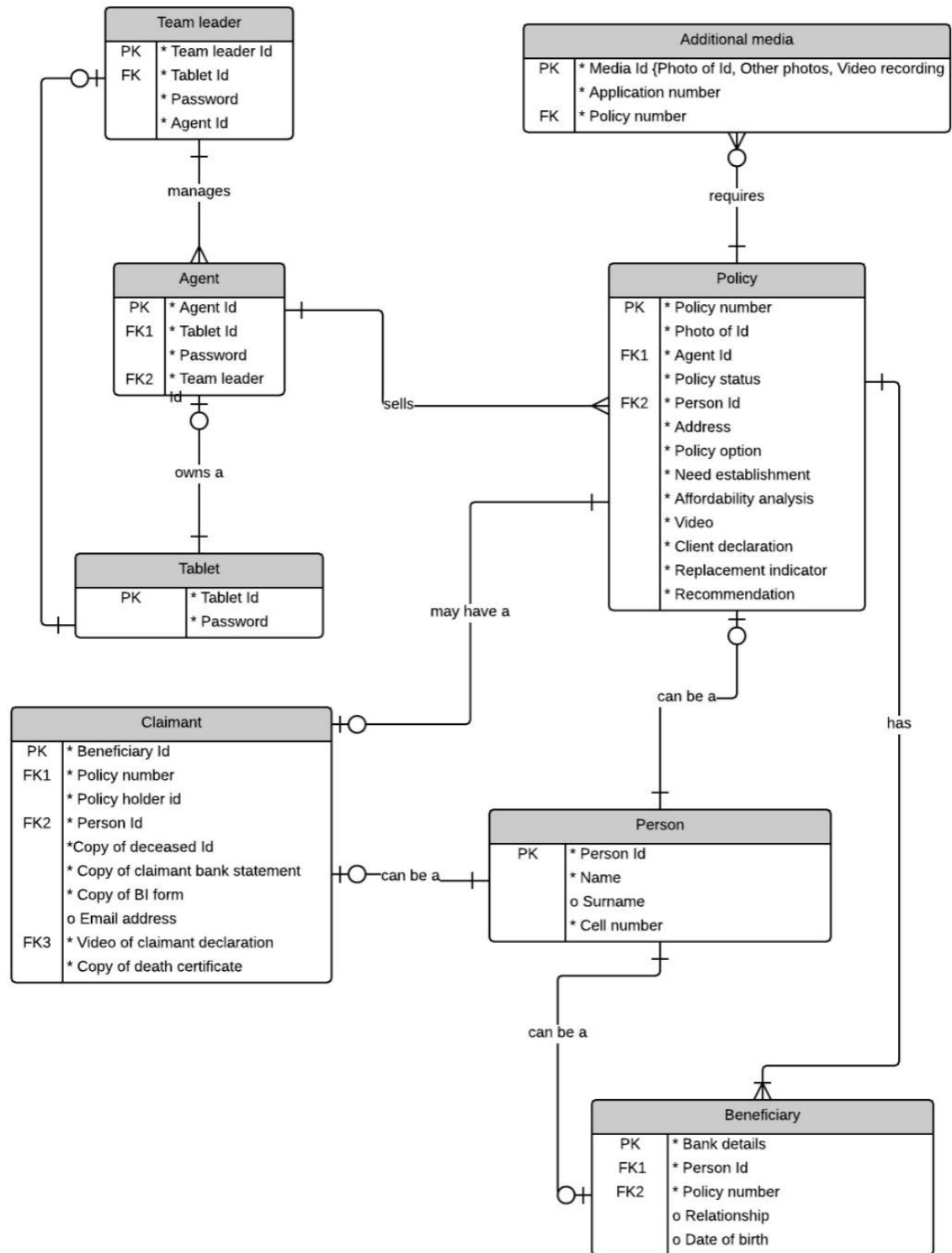


Figure 23: Detailed ERD for Shepherd Life.

Business interface requirements

- Screen mock-ups

Figure 24 is an example of one of the screen shots designed for the tablet. Appendix A includes all the tablet designs.

The screen print below reflects the screen that sends extra details for a new policy:

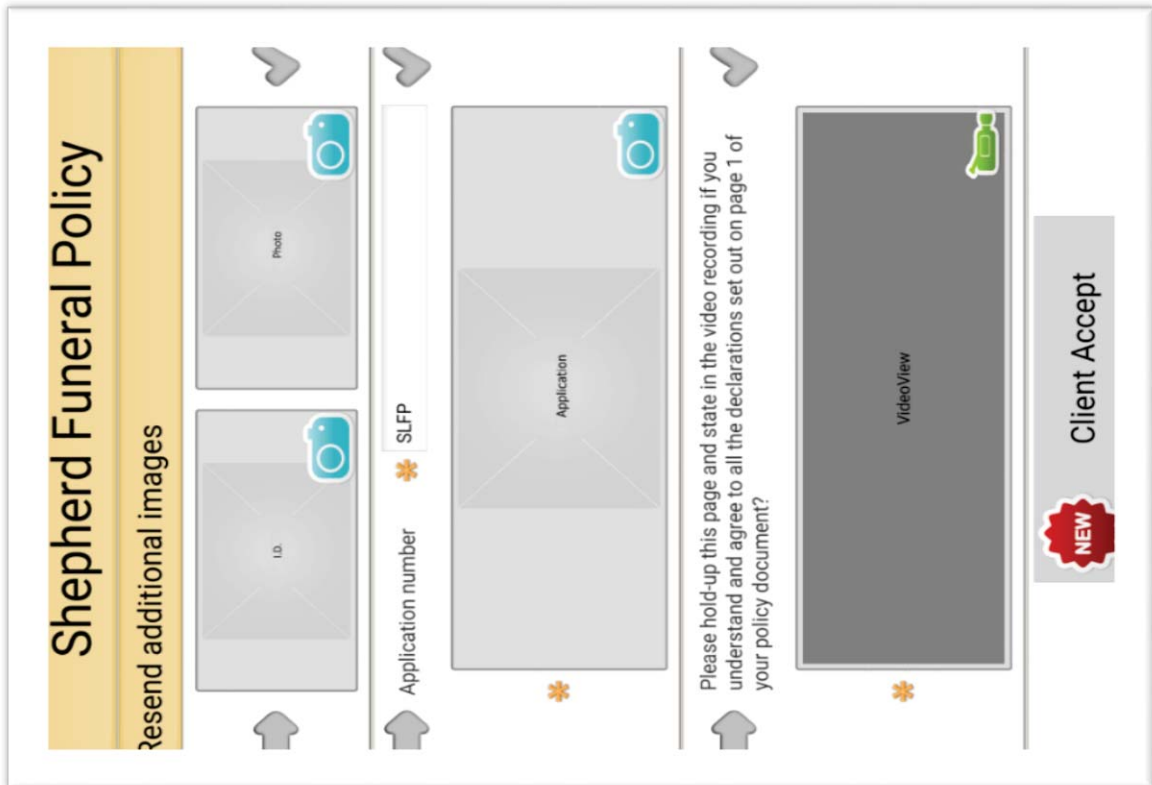


Figure 24: Example of a screen shot.

7. Implementation

Implementation of Shepherd Life

Shepherd Life was officially launched on 12 July 2015. Although the student was not responsible for the implementation, all the strategies and designs as presented by the student was used during implementation. In the section to follow a brief summary of the implementation to date is discussed.

7.1 Introduction

The first agents were appointed and registered with the financial services board (FSB) and selling started in all earnest on 19 July.

Management was pleased with the initial launch although there were challenges encountered both from a technology and a human resource perspective. A total of 32 policies were sold in the first month and 177 policies were sold in August. Statistics on the progress for September will be released shortly.

7.2 Organisation structure

The current organogram is shown in Figure 25. This structure will still expand drastically as Shepherd Life grows.

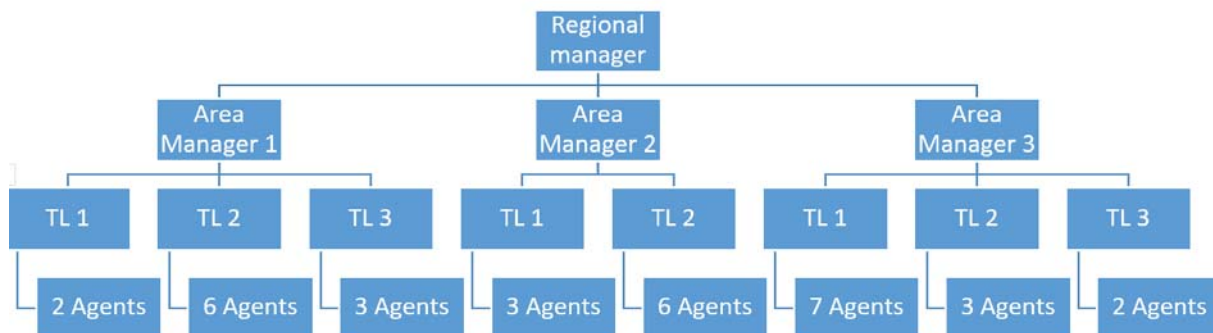


Figure 25: The current organisation structure.

7.3 Challenges

Technology

The tablet software performed well according to the initial requirements but not enough emphasis was put on the destructive testing during the final stages before the launch. Although the software restricts agents to do anything on the tablets except for using the Shepherd Life application they are pressing all sorts of combinations of keystrokes that causes the software to malfunction.

Many of these unexpected events have since the launch been provided for and three new versions of the software have been released on the google play store. Updating of the application through the play store proved to be difficult and alternative mechanisms are currently being investigated by the development team.

Human resources

There is a total of 44 people currently employed by the company. During the initial nine weeks three people were dismissed. The literacy level of some of the employees is not adequate and more emphasis will have to be placed on the recruitment of people with the necessary skills.

The first competition was launched as motivation for the agents and the agent that won earned a total of R11 200 rand including the prize money.

7.4 Conclusion

The business model currently proves to be very successful although minor enhancements are made on a daily basis to ensure that all client requirements are met. Shepherd Life will soon be a well-known brand and I am delighted to be part of such a dynamic team.

8. Validation of the business model and the tablet application

8.1 Validate the business model

“Validate or die.”-Kanul Punjabi. Validating the business model is a critical step in any business model implementation because it provides quality assurance and determines if the model implemented is indeed the optimal model. Although certain project goals and objectives may develop and change over time it is important to do validation continuously to ensure that the business stays compliant with the set or changing objectives. The techniques that were used to validate the business model implemented by Shepherd Life were the SWOT evaluation assessment and the compliance to objectives check but this was done for the entire business plan of Shepherd Life.

SWOT analysis validation

The SWOT analysis validation technique was the first technique used to validate the implemented business model of Shepherd Life. To give tangible results the model of Shepherd Life was compared to the general business model of the competitors of Shepherd Life. The competitors that were evaluated included Hollard, Doves, Assupol and Avbob. A general model of the competitors can be summarized as having a target market restricted by an age limit of 65 and certain critical health limits. They collect the premiums of policies monthly in arrears, without any guarantee to receive the payment. Their agents are remunerated on a model where the next 12 months of premiums are paid in the first month, even before any premiums were collected. A head office and regional offices are required to ensure presence in the customer base. Policies are sold by filling out application forms that are sent to the regional offices for capturing and approval. High printing costs are incurred as a result of this old practice. They have a well-established brand and have a strong customer base because they have been in the industry for a long time.

The validation is done using the nine building blocks that were used to construct the business model using the business model canvass. The model determines the external and internal, positive as well as negative, areas of the business model implemented (Engdahl and Rensfelt, 2011).

The validation techniques is divided into three categories namely (1) strengths and weaknesses, (2) opportunities and (3) threats. Within each of these three categories the building blocks in the business model canvas were evaluated.

A quick review of the nine building blocks:

1. Value proposition.
2. Cost Structure.
3. Revenue streams.
4. Key resources.
5. Key activities.
6. Key partners.
7. Customer segments.
8. Channels.
9. Customer relationship.

The model implemented by Shepherd Life is referred to as *Model implemented* and the summarized model of the competitors is referred to as *Competitors*.

(1) Strength and weakness assessment

In the first assessment a strength and weakness assessment was done. This was done by answering certain questions regarding the nine building blocks and scoring them accordingly, as can be seen in Appendix A. Strengths are indicated with a score between +1 and +5, and weaknesses with a score between -1 and -5.



Figure 26: Graphical representation of the strengths and weaknesses assessment.

The graphical representation shown in Figure 26 shows that the business model implemented by Shepherd Life out performs the business model of the competitor in every building block except customer segments and customer relationships. The reason for Shepherd Life being out performed by the competitor when considering customer segments is that Shepherd Life has a very niche target market, including only South African citizens dependent on a social grant. The reason for the weaker performance considering customer relationships is because Shepherd Life has only been implemented in July, resulting in only a short period of time to build strong customer relationships.

(2) Opportunity assessment

Similar to the first assessment done, a further assessment was done for the nine building blocks. The scoring metrics applicable when validating the opportunities are between +1 and +5. The opportunities can affect the business positively. A higher score with the opportunity assessment implies that the business model is in a stronger position to exploit opportunities compared to the competitors.

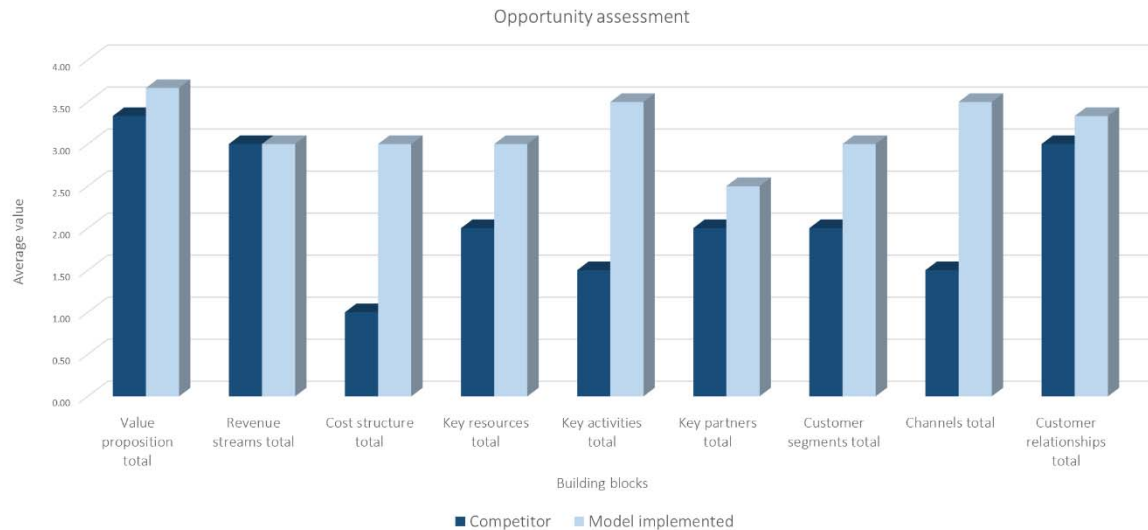


Figure 27: Graphical representation of the opportunity assessment.

It is shown in Figure 27 that there are more opportunities to be exploited with the business model of Shepherd Life than the model of the competitors. This is because of the new, innovative idea to sell funeral policies to a unique target market and by making use of agents selling policies through tablets instead of an expensive paper process and high costs of branch offices.

(3) Threat assessment

Similar to the previous assessment, the threat assessment was done using the nine building blocks. The scores are between -1 and -5. The reason for the negative scoring method is because threats affect the business model negatively. The higher the score the stronger the model because it indicates a low threat.

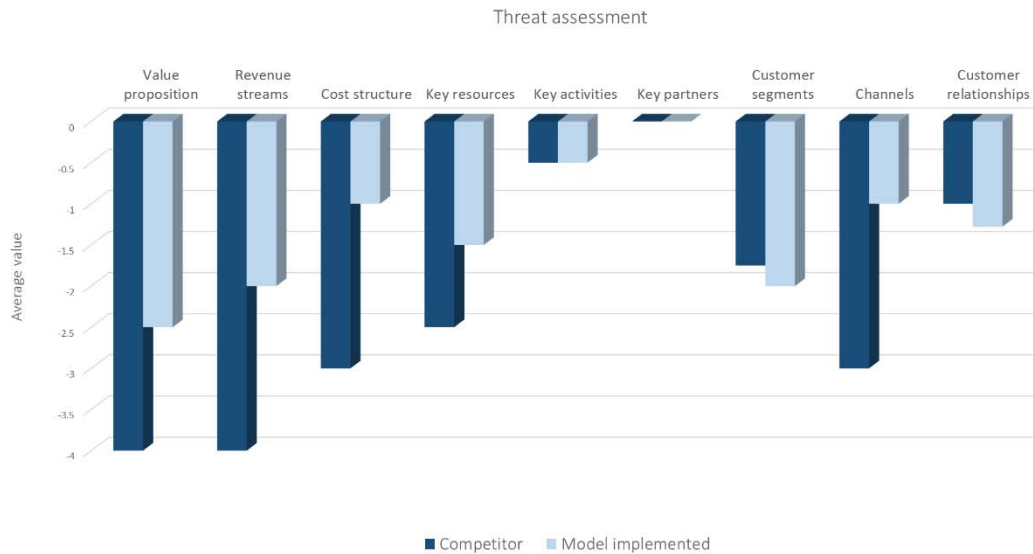


Figure 28: Graphical representation of the threats.

Figure 28 indicates that the business model of Shepherd Life has less threats than the model of the competitors. The only block where the threat for Shepherd Life was greater than the threat of the competitor is customer relationships. The reason for this threat is that the competition already had well established relationships with their clients and Shepherd Life, as a new entrant to the market, still have to establish their relationships with the threat from the customers choosing the already established brands.

Conclusion

Total score for the models

To validate the business model of Shepherd Life it is important to look at the strengths, weaknesses, opportunities and threats separately, as was done in the previous sections, but it is also important to look at the models as a whole to validate the total performance of the model. To calculate the final score the threat assessment had to be adjusted because of the negative scoring method. Instead of (-2/5) for example a (+3/5) was given. This was calculated by taking the absolute value of the initial value scored and then subtracting it from the total which is 5.



Figure 29: Final score for the two models.

It can be seen in Figure 29 that the newly implemented model outperforms the model of the competitors with a final score of 3.47 against 2.41. Therefore the model implemented appears to be successful and promises to outperform the competitors.

The model implemented is very strong in most aspects. At this stage the only weaknesses the model is faced with is customer relationships and brand establishment. The reason for this is that the business has only been implemented for two months having very little time to build strong relationships and a well-known brand name.

8.2 Validate the tablet application

Questionnaires

A questionnaire was compiled and ethically approved for distribution by both the University of Pretoria and the owner of Shepherd Life. The questionnaire that was completed by the agents can be seen in Appendix B. The results are graphically shown and analysed below. The completed questionnaires can be seen in Appendix D.

The questionnaires were distributed two months after the date of implementation. At this stage some adjustments and improvements were already made.

There are currently 44 people employed at Shepherd Life. 40 of the employees sell policies since only agents and team leaders are allowed to sell policies. Because of availability and access to employees, only 20 questionnaires were received back in time, 14 of these were completed by agents and 6 by team leaders.

Analysis of graphs

Questions with similar criteria were grouped together.

It is clear from Figure 30 that the agents and team leaders are very satisfied with the functionality of the tablet application, the ease of using the tablet and with the user guide. A user guide was made available when agents and team leaders received the tablets to increase understanding of the tablet and the ease of operating it. The user guide does not form part of the project scope and is therefore not included but can be made available on request.

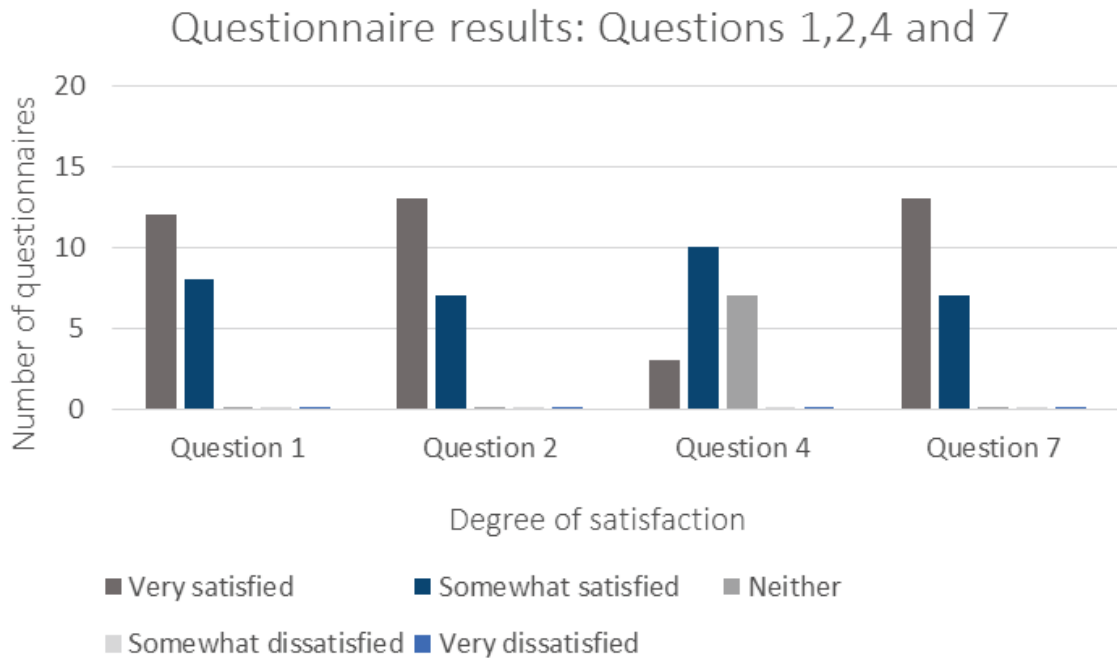


Figure 30: Results of the questionnaire of question 1, 2, 4 and 7.

Figure 31 on the next page shows that all agents and team leaders did receive a user guide to help with the assistance in operating the tablet and all agents and team leaders prefer the tablet over paper work.

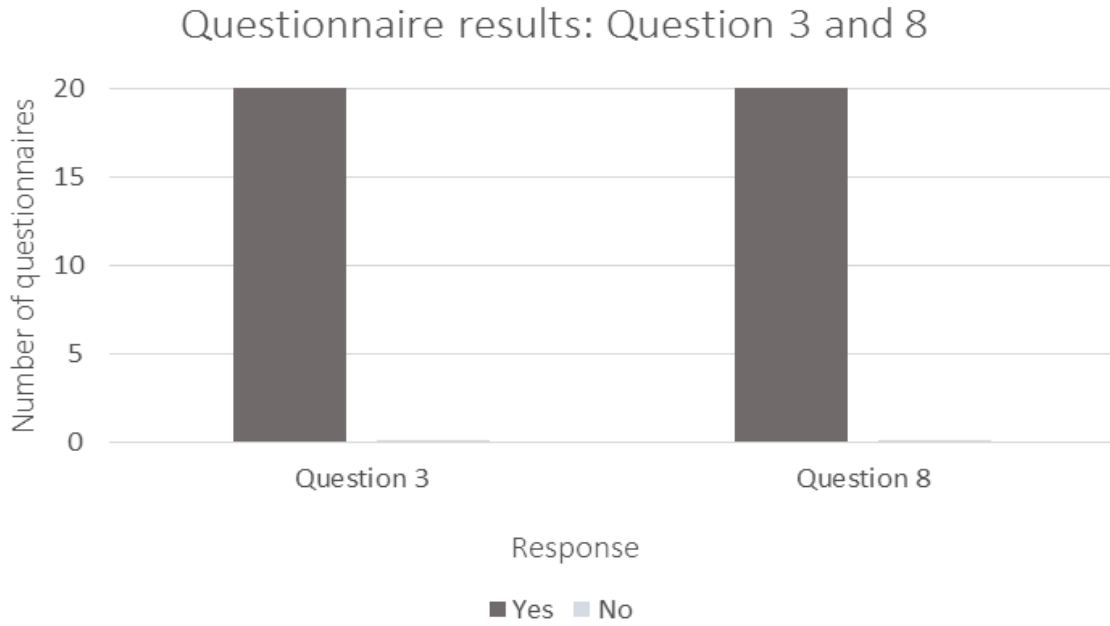


Figure 31: Results of the questionnaire of question 3 and 8.

Figure 32 illustrates the time it takes an agent or team leader to get familiar with the tablet application. Most agents and team leaders were comfortable with operating the tablet and logging clients within one day demonstrating the ease of use of the tablet.

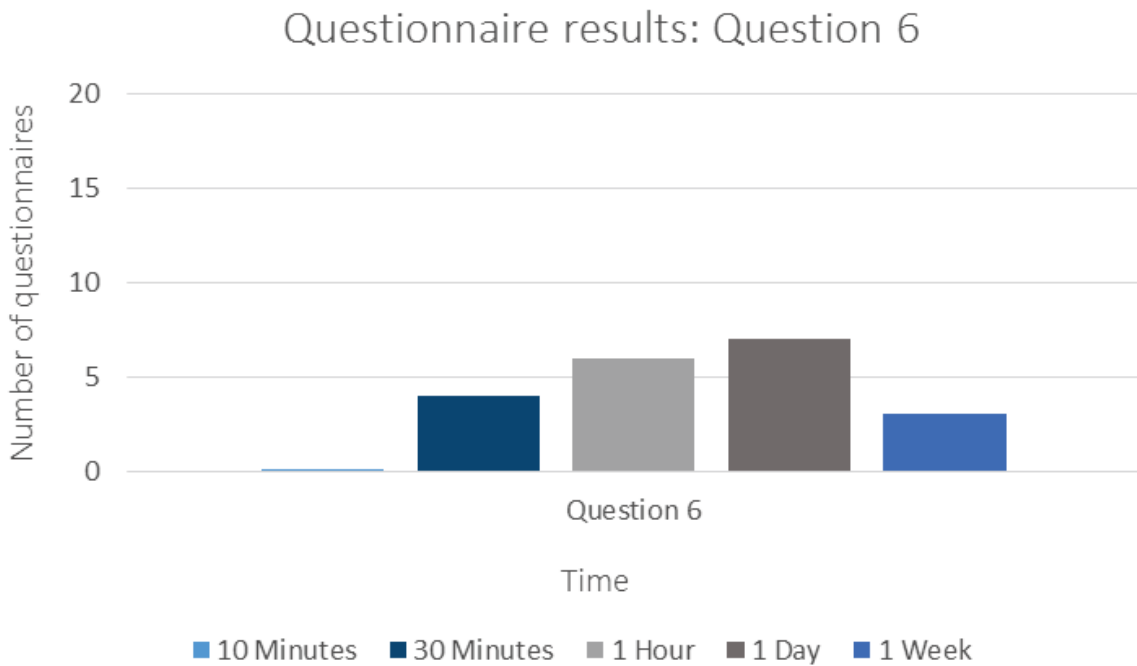


Figure 32: Results of the questionnaire of question 6.

The results in Figure 33 shows that most agents can onboard a new client with ease, that the flow is logical and that they really believe in the product. Question 12 is the only question where the respondents answered neither and this is because no claims have been logged to date.

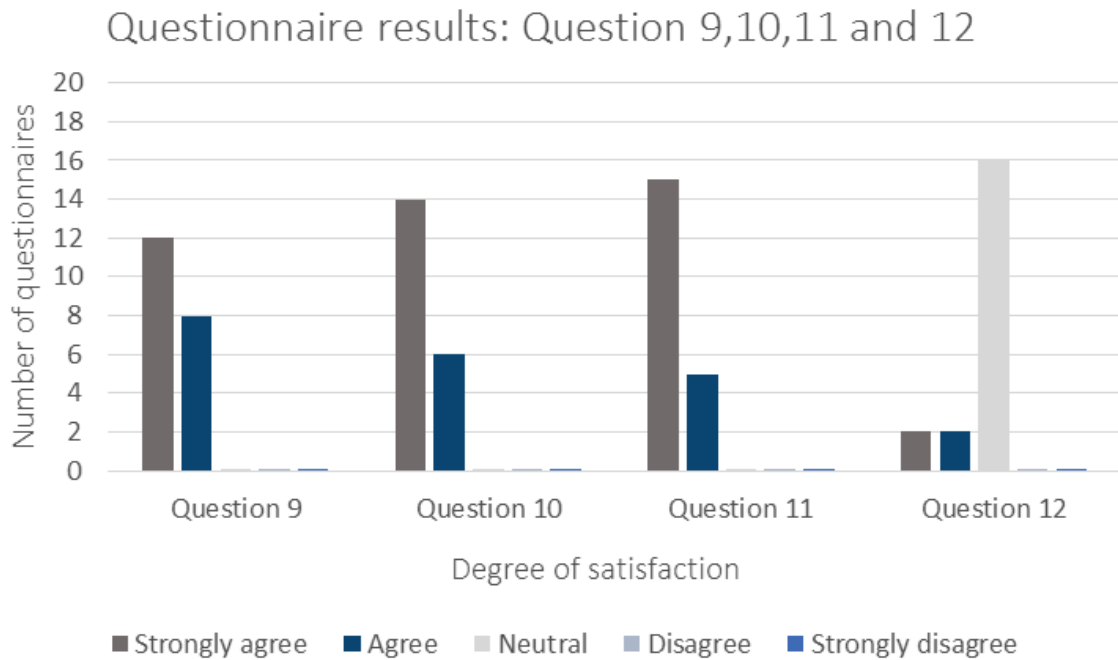


Figure 33: Results of the questionnaire for question 9, 10, 11 and 12.

Conclusion

An overwhelming positive response from all agents and team leaders received confirmed the success of the tablet design and usability. Improvements and updates of the tablet software are made on a regular basis.

8.3 Validate the business plan

Overall compliance check

It is important to validate if all required objectives, stated in the project aim, were met. The student and the business owner of Shepherd Life validated the required objectives by scoring each objective against a general set of criteria.

The results of the validation are shown in Table 45.

Table 45: Compliance with objectives check.

Objectives	Strongly agree	Agree	Disagree	Strongly disagree
Business design				
Is there a well defined business strategy?		X		
Does the business design consider all external factors influencing the business?		X		
Were different business models designed and compared to ultimately choose the optimal one?	X			
Does the business design illustrate that the business will create value by improving the standard of living of some people, considering the remuneration models?	X			
Does the business design promise to deliver a profit, and is this promise substantiated by research?	X			
Does the business design prove to be sustainable?	X			
Is the business design different and unique from its competitors?		X		
Total	4	3	0	0
Tablet design				
Was a tablet design successfully completed?	X			
Did it improve efficiency of developers in the development of the tablet application?		X		
Does the tablet support all necessary business requirements?	X			
Is the feedback on usability of the tablet positive? (Questionnaires will be used to evaluate feedback)?		X		
Total	2	2	0	0
Implementation				
Is the business design successfully implemented?	X			
Has any policies been sold?	X			
Are the employees happy and satisfied in their work environment created by Shepherd Life?		X		
Are the customer happy with the product?		X		
Are the number of policies sold increasing?	X			
Total	3	2	0	0

Conclusion

It is clear from the results that the majority of the set objectives were met in full. None of the objectives received a rating below “Agree”. The business as well as the tablet designs were validated after completion of the respective designs and because of the high level of satisfaction of the results, the management team of Shepherd Life implemented the business based on the proposed models. The final step was to validate the implementation of Shepherd Life and to measure the success of the business based on actual results achieved to date, see Table 46.

Table 46: Number of policies sold and cancelled for July and August.

Metric	July	August	Up to 26 sept
Policies sold	32	177	195
Policies cancelled	0	0	2
Average premium of policies	R 115	R 125	R 117
Total first premium	R 3 680	R 22 125	R 22 815
Total further premiums	R -	R 994	R 6 967

9. Conclusion and future work

Shepherd Life will continue to deliver a state of the art product while at the same time supporting the niche target market the company operates in. Helping the underprivileged and removing fraud from the industry will help make South Africa a better country with each funeral policy sold. It is important that continuously improvements and upgrades are done to ensure to be one step ahead of the competitor at all times.

Recommendations to improve customer relationships and to establish a well-known brand

Satisfied customers

The best way to increase customer relationships is to ensure that customers are very satisfied. This will be done by ensuring that agents and team leaders selling the policies are well trained, informed about the products available and friendly. Shepherd Life must furthermore ensure to provide a superior product with better than market related prices. Shepherd Life will also strive to keep their customers happy by reaching out to their target market. Wheelchairs have already been manufactured and will be handed to physically impaired people in the community, the wheelchair can be seen in Figure 34 below.



Figure 34: The wheelchair designed by Shepherd Life.

Advertising

To establish a brand, advertising is crucial. Visibility is of utmost importance. As discussed in the marketing mix advertising is currently done by:

- Word of mouth. If death claims are paid timeously the potential customer will soon learn that the product can be differentiated from the competition.

- Distributing fliers at the SASSA pay offices when the grants are paid out.

As the business and profits grow more money will be invested in advertising to ensure that the brand of Shepherd Life is well known.

Recommendations to improve customer relationships and to establish a well-known brand.

After the very positive feedback received from the agents and team leaders regarding the usability of the tablet software as well as the suggestions received, a plan to further improve the application was discussed in a workshop.

The suggestions are listed below:

- Split the client on boarding screen into different screens in order to force the agent to complete a full section before continuing with the next section. The sections are divided as follows:
 - Personal details of applicant.
 - Policy selection and confirmation.
 - Beneficiaries.
 - Photos and videos.
 - Acknowledgement.
- Change the sort order on the help desk screen to reflect the policies that have not been accepted first followed by the accepted policies.

10. Appendices

Appendix A: Screen shots

The screen print below reflects the agent login page:

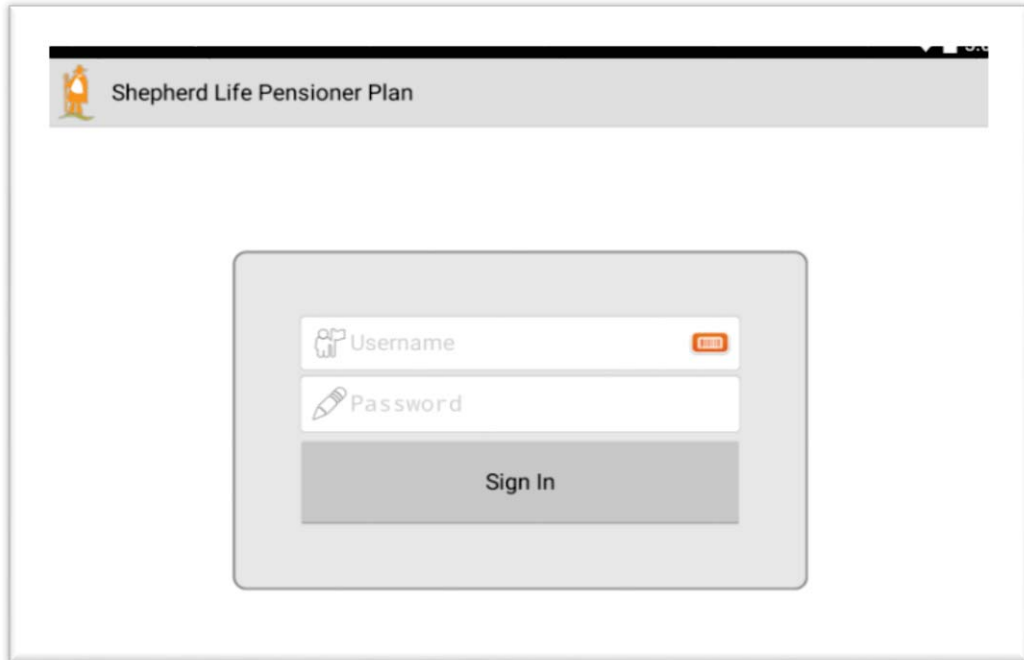


Figure 35: Agent login screen mock-up

The screen print below reflects the agent action page:

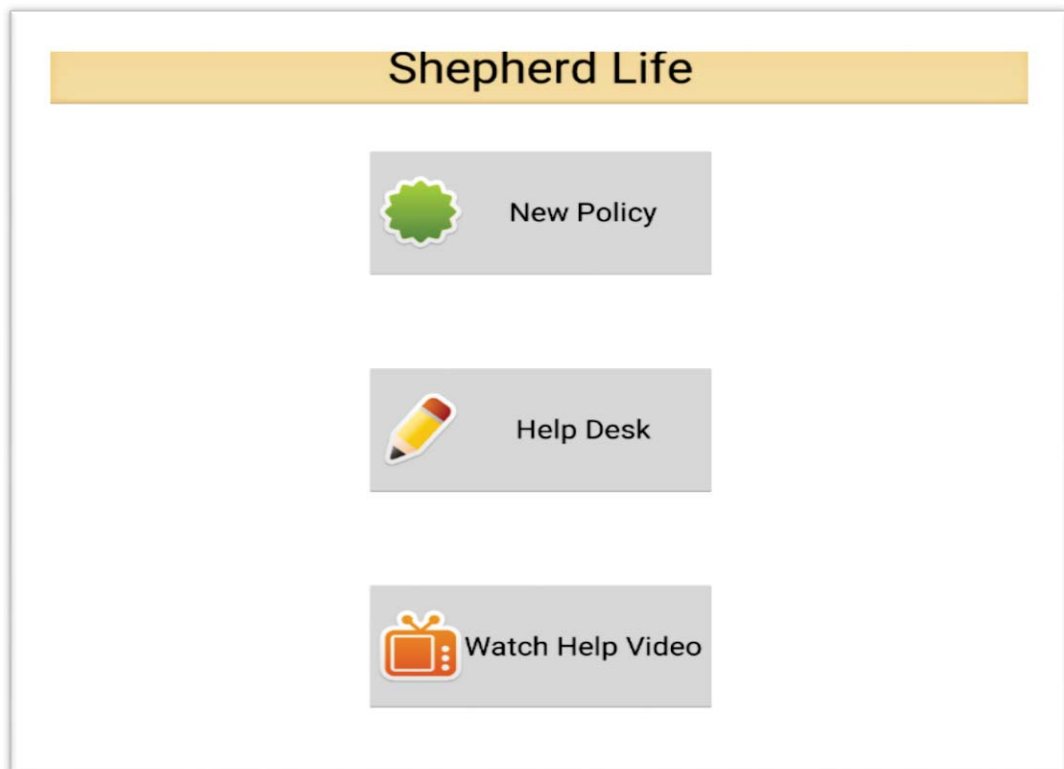


Figure 36: Agent action page screen mock-up.

The screen prints below displays the fields required to load a new policy:

Screen 1:

Shepherd Funeral Policy

Policy holder details

ID number *

Premium options

- R 60.00 Undisclosed
- R 80.00 Undisclosed
- R 100.00 Undisclosed
- R 110.00 Undisclosed
- R 120.00 Undisclosed
- R 130.00 Undisclosed

Monthly premium: *

Benefits payable: *

Benefits payable during the first 6 months after application are:

- The total benefit in case of accidental death.
- For natural death R500 in the first 3 months;
- R750 in 4-6 months.

Commission: The total amount of the first premium will be paid to the agent as commission. No joining or handling fee is payable by

Figure 37: Fields required for a new policy screen mock-up.

Screen 2:

Name *

Surname *

Preferred method of communication *

Cellphone *

Address

Address Line 1 *

Address Line 2 *

Address Line 3 *

Postal Code *

Beneficiary 1

Name *

Surname *

Relationship *

Date of birth *

Beneficiary 2

Name *

Surname *

Relationship *

Date of birth *

Figure 38: Fields required for a new policy, screen 2.

Screen 3:

Client advice record

Needs established

Funeral Expenses

Item 1
Sub-Item 1

Affordability analysis

The total current insurance deductions is less than 10% of gross income? Yes No

Recommendation

Based on your needs, priorities and affordability we recommend Shepherd Life Funeral Policy

Client declaration

Was there any information requested by the representative which you could not or did not provide?

Is the recommended product replacing or going to replace any existing product? No Yes

Application confirmation

Application number SLFP

Please hold-up this page and state in the video recording if you understand and agree to all the declarations set out on page 1 of your policy document?

VideoView

Client Accept

Figure 39: Fields required for a new policy, screen 3.

The screen print below reflects the help desk screen:

Shepherd Life Pensioner Plan

Search policies...

Policy / Application	Name	Surname	Status
FP003753	Examision		New
FP258258	i		New

New Claim E-Mail E-Mail

Figure 40: Help desk screen mock-up.

The screen prints below reflects the send extra details for claims screen:

The screen prints below reflects the process of a death claim: Screen 1

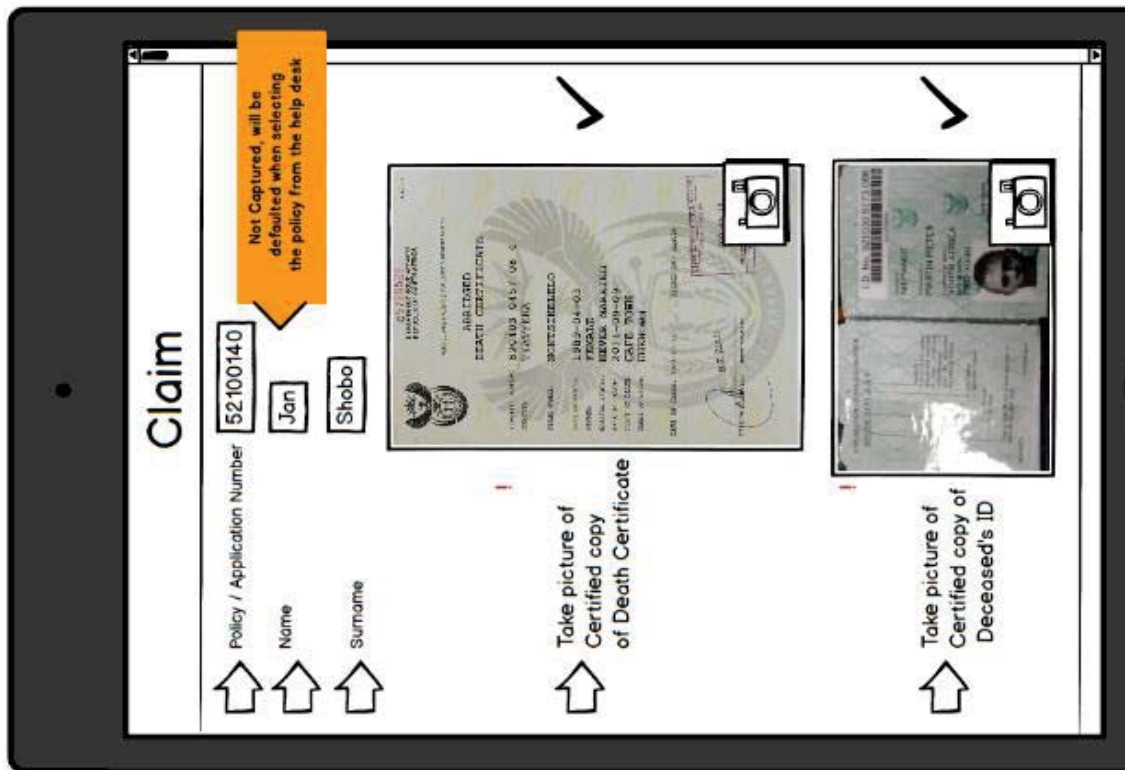


Figure 41: Process of a death claim screen mock-up, screen 1.

Screen 2

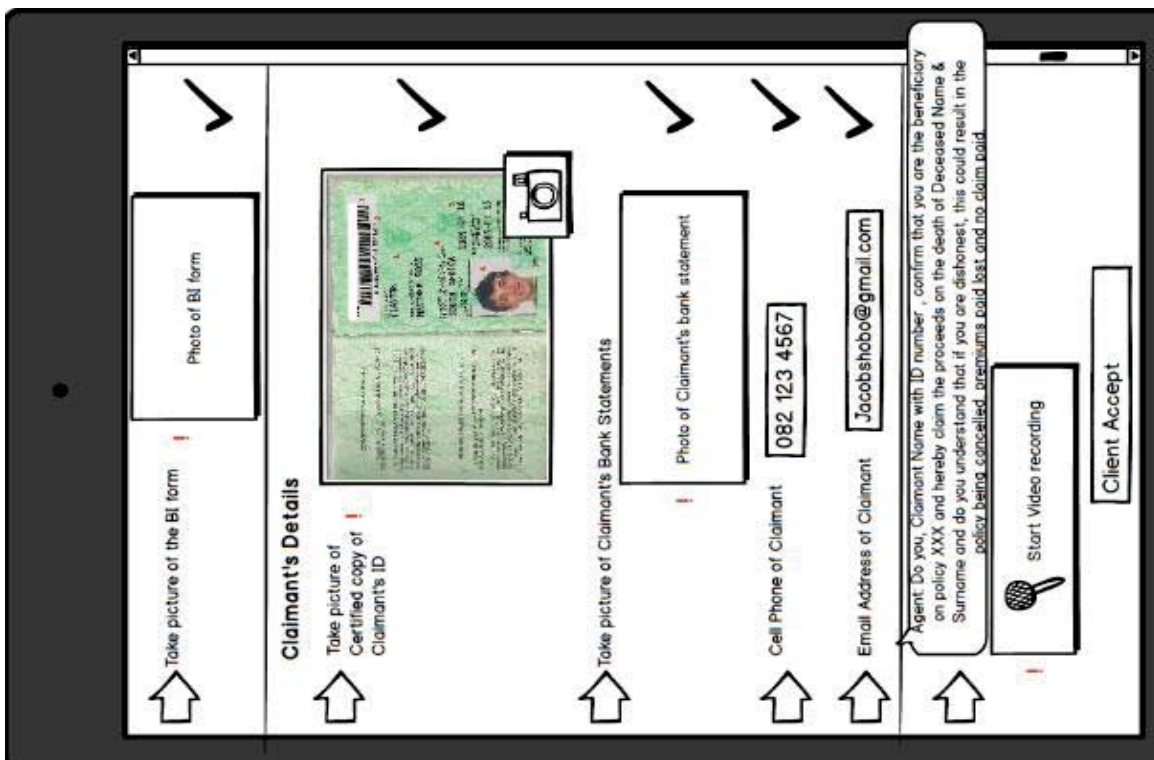


Figure 42: Process of a death claim screen mock-up, screen

Screen 2:

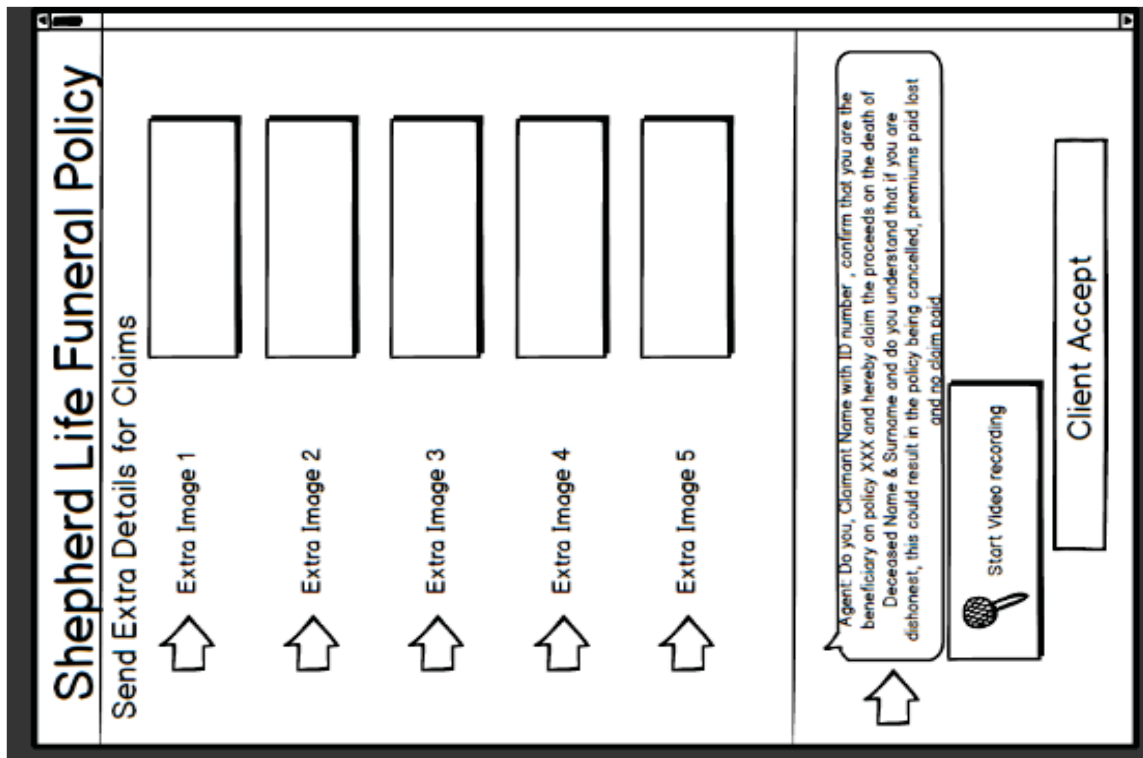


Figure 43: Send extra details for claim screen mock-up.

Appendix B: SWOT assessment criteria

Table 47: Strength and weakness assessment


Strengths and weaknesses assessment  				
Building block	Checklist question (Positive 1 to 5)	Competitor	Model implemented	Checklist question (Negative 1 to 5)
Value proposition	Value Propositions and customer needs are well aligned	4	4	4 Value Propositions and customer needs are not well aligned
	Value Propositions have strong network effects. (When network effect is present, the value of a product or service increases as more people use it)	4	4	4 No network effects are present in the value proposition
	Customers are very satisfied	3	4	4 We have frequent complaints
Value proposition total		3.67	4	
Cost structure	Costs are predictable	4	5	5 Costs are unpredictable
	The business model and cost structures are correctly matched	2	4	4 The business model and cost structures are not matched
	Operations are cost effective	-2	5	5 Operations are not cost effective
	We benefit from economies of scale	3	3	3 No economies of scale exist
Cost structure total		1.75	4.25	
Revenue streams	Margins are strong	-1	4	4 Margins are poor
	Predictable revenues	2	2	2 Revenues are unpredictable
	Revenue streams are diversified	4	2	2 Revenues are transactional and not repeatable
	Revenue streams are sustainable	2	4	4 Revenue is not sustainability
	Revenues are collected before expenses are incurred	-3	5	5 Costs are incurred before revenues are collected
	Cost and what customers are willing to pay is equal	4	4	4 Customers are not charged for what they are willing to pay
	Our pricing mechanisms capture full willingness to pay	4	4	4 Pricing structures leaves money on the table
Revenue streams total		1.71	3.57	
Key resources	Key resources are not easily replicated by competition	2	3	3 Key resources are easily replicated
	Key resources are deployed in the right number at the right time	4	4	4 Difficult to deploy the right resources at the right time
	Resource needs are predictable	1	3	3 Resource needs are unpredictable
Key resources total		2.33	3.33	
Key activities	Effective execution of activities	-2	4	4 Key activity execution is bad
	Key activities are difficult to duplicate	1	3	3 Key activities are easy to copy
	Execution quality is high	3	3	3 Execution quality is low
Key activities total		0.67	3.33	
Key partners	Focussed and work with partners when necessary	4	4	4 Don't work good with partners
	Enjoy good working relationships with partners	4	4	4 Bad working relationships with key partners
Key partners total		4	4	
Customer segments	Customer churn rates are low	4	4	4 Customer churn rates are high
	Customer base is well segmented	4	2	2 Customer base is poorly segmented
	Continuously acquiring new customers	4	4	4 Failing to acquire new customers
Customer segments total		4	3.33	
Channels	Channels are very efficient	-2	4	4 Channels are not efficient
	Channels are very effective	-2	4	4 Channels are not effective
	Channel reach is strong among customers	1	4	4 Channel reach is weak among customers
Channels total		-1	4	
Customer Relationships	Strong customer relationships	4	4	4 Weak customer relationships
	Switching cost is high	1	1	1 Switching cost is low
	Brand is strong	5	1	1 Brand is weak
Customer relationships total		3.33	2.00	
Total strengths and weakness assessment		2.27	3.54	

Table 48: Opportunity assessment questions.


Opportunity assessment 			
Building block	Checklist question (Positive 1 to 5)	Competitor	Model implemented
Value proposition threats	Can we better integrate products and services?	4	3
	Can we compliment our value proposition?	3	4
	Are there unsatisfied customer needs?	3	4
Value proposition total		3.33	3.67
Revenue streams	Can we replace one time transactions with recurring revenues?	4	4
	Do we have cross selling opportunities?	4	4
	Can prices be increased?	1	1
Revenue streams total		3	3
Cost structure	Can we reduce costs?	1	3
Cost structure total		1	3
Key resources	Can we reduce costs for resources?	2	3
	Are key resources underexploited?	2	3
Key resources total		2	3
Key activities	Can we standardise some key activities?	1	3
	Can efficiency in general be improved?	2	4
Key activities total		1.5	3.5
Key partners	Could partner channels help us better reach customers?	3	4
	Are there outsourcing opportunities?	1	1
Key partners total		2	2.5
Customer segments	How can we benefit from a growing market?	1	4
	Could we serve new customer segments?	3	2
Customer segments total		2	3
Channels	Can we better align channels with customer segments?	1	3
	Can we improve channel effectiveness?	2	4
Channels total		1.5	3.5
Customer relationships	Can we improve customer follow-up?	3	3
	Can we improve personalisation?	3	4
	Can we automate some of the relationships?	3	3
Customer relationships total		3.00	3.33
Total opportunity assessment		2.15	3.17

Table 49: Threat assessment questions.

Threat assessment			
Building block	Checklist question (Positive 1 to 5)	Competitor	Model implemented
Value proposition threats	Are substitute products and services available?	-4	-3
	Are competitors threatening to offer better pricing and value?	-4	-2
Value proposition total		-4	-2.5
Revenue streams	Are margins threatened by competitors or technology?	-5	-1
	Do we depend on one revenue stream?	-3	-3
Revenue streams total		-4	-2
Cost structure	Costs threaten to become unpredictable?	-2	-1
	Costs threaten to grow more than the revenues they can support?	-4	-1
Cost structure total		-3	-1
Key resources	Could we face disruption in the supply of certain resources?	-3	-2
	Is the quality of resources threatened?	-2	-1
Key resources total		-2.5	-1.5
Key activities	Can key activities be disrupted?	-1	-1
	Is the quality of the key activities threatened in any way?	0	0
Key activities total		-0.5	-0.5
Key partners	Is there a chance to loose key partners?	0	0
	Is there a chance that our partners will collaborate with competitors?	0	0
Key partners total		0	0
Customer segments	Could our market be saturated soon?	-1	-3
	Is our market share under threat?	-1	-1
	Are customers likely to defect?	-2	-1
	Will competition in market intensify?	-3	-3
Customer segments total		-1.75	-2
Channels	Does the competition threaten our channels?	-3	-2
	Will our channels become irrelevant to customers?	-3	0
Channels total		-3	-1
Customer relationships	Are any of our customer relationships in danger of deteriorating?	-1	-1
Customer relationships total		-1	-1
Total threat assessment		-2.19	-1.28

Appendix C: Questionnaires



This is an anonymous questionnaire to ensure that we as Shepherd life have the best possible functioning application software to handle applications and claims. This can and will not influence you as employee negatively in any way.

Please fill in the form as honestly as possible.

Please colour the circle most applicable to you.

- 1. Please rate your satisfaction with the functionality of the tablet.**
 - 5 – Very satisfied
 - 4 – Somewhat satisfied
 - 3 – Neither satisfied nor dissatisfied
 - 2 – Somewhat dissatisfied
 - 1 – Very dissatisfied

- 2. Please rate your satisfaction with the functionality with the software available to capture a new client.**
 - 5 – Very satisfied
 - 4 – Somewhat satisfied
 - 3 – Neither satisfied nor dissatisfied
 - 2 – Somewhat dissatisfied
 - 1 – Very dissatisfied

- 3. Was there a “How to” guide available to help you learn how to operate the tablet?**
 - Yes
 - No

- 4. If the answer was “Yes” in the previous question, were you satisfied with the guide?**
 - 5 – Very satisfied
 - 4 – Somewhat satisfied
 - 3 – Neither satisfied nor dissatisfied
 - 2 – Somewhat dissatisfied
 - 1 – Very dissatisfied

- 5. If the answer was “No” would you have preferred a “How to” guide?**
 - Yes
 - No

- 6. After understanding the software application, how long did it take you to get comfortable with operating the tablet?**
 - 10 minutes
 - 30 minutes
 - 1 hour
 - 1 day
 - 1 week

- 7. Please rate the ease of operating the tablet?**
 - 5 – Very satisfied
 - 4 – Somewhat satisfied
 - 3 – Neither satisfied nor dissatisfied

Figure 44: Questionnaire filled out by agents, page 1



- 2 – Somewhat dissatisfied
- 1 – Very dissatisfied

8. Do you prefer the tablet over paper work?

- Yes
- No

9. Do you understand the funeral policy options that Shepherd life offer?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

10. Would you be able to log a new client with ease?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

11. Is the flow of the “client on-boarding” / new application logical?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

12. Is the flow of the “claim process” logical?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

13. Do you believe in our technology and will you sell the policies with confidence?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

14. Do you have any recommendations?

Thank you very much, your time is greatly appreciated.

Figure 45: Questionnaire filled out by agents, page 2.

Appendix D: Questionnaire responses

Can be found in a separate file.

File name: Questionnaires/Shepherd Life

Appendix E: Approval letter for questionnaires



Reference Number: EBIT/75/2015

10-Nov-2015

Margie M Nortje
Industrial and Systems Engineering
UNIVERSITY OF PRETORIA

Dear Nortje,

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Ethics Committee refers.

1. I hereby wish to inform you that the research project titled "*Application for ethical clearance for questionnaire to complete BPJ 420 successfully.*

"Shepherd Life Funeral Policies" has been approved by the Committee.

This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Codes of Research Ethics of the University of Pretoria, if action is taken beyond the approved proposal.

2. According to the regulations, any problem arising from the study or research methodology must be brought to the attention of the Faculty Ethics Committee via the Faculty Ethics Office.
3. The Committee must be notified on completion of the project.

Approval is granted for the duration of the project or for a period of two years from the date of this letter, whichever is shorter. Please note that any amendments or changes must be approved by the Ethics Committee, and that the applicant should apply for these via the online ethics system.

The Committee wishes you every success with the research project.

(System-generated letter without signature. Please contact the EBIT Ethics Office should you need a paper copy with signature)

Prof. J.J. Hanekom
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

11. References

- Academy, P. (2015). *Professional Academy - Marketing Theories* "PESTEL Analysis". [online] Professionalacademy.com. Available at: <http://www.professionalacademy.com/news/marketing-theories-pestel-analysis> [Accessed 28 Apr. 2015].
- AccountingCoach.com, (2015). *expenses definition | Dictionary | AccountingCoach*. [online] Available at: <http://www.accountingcoach.com/terms/E/expenses> [Accessed 15 Aug. 2015].
- Africa, S. (2014). *Living condition | Statistics South Africa*. [online] Statssa.gov.za. Available at: http://www.statssa.gov.za/?page_id=739&id=1 [Accessed 14 Apr. 2015].
- Africa, S. (2015). *People | Statistics South Africa*. [online] Statssa.gov.za. Available at: http://www.statssa.gov.za/?page_id=737&id=1 [Accessed 27 Apr. 2015].
- Africa, S. (2015). *Statistics South Africa | The South Africa I Know, The Home I Understand*. [online] Statssa.gov.za. Available at: <http://www.statssa.gov.za/> [Accessed 13 Apr. 2015].
- Anon, (2015). [online] Available at: (<http://www.professionalacademy.com/news/marketing-theories-pestel-analysis>) [Accessed 16 Apr. 2015].
- Anon, (2015). [online] Available at: <http://www.publicnewshub.com/da-eff-growing-faster-anc-social-networks/> [Accessed 11 May 2015].
- Assupol.co.za, (2015). *About Assupol Life & Insurance*. [online] Available at: <http://www.assupol.co.za/about-us/overview/> [Accessed 10 May 2015].
- Avbob.co.za, (2015). *AVBOB - Insurance & Funeral Service*. [online] Available at: <http://www.avbob.co.za/> [Accessed 12 May 2015].
- Bentley, L., Whitten, J. and Randolph, G. (2007). *Systems analysis and design for the global enterprise*. books.lardbucket.org, (2015). *Value Disciplines and Business Models*. [online] Available at: <http://2012books.lardbucket.org/books/global-strategy/s06-03-value-disciplines-and-business.html> [Accessed 16 Aug. 2015].
- Boston: McGraw-Hill Irwin.
- Blueworkslive.com, (2015). *IBM Blueworks Live*. [online] Available at: <https://www.blueworkslive.com/#!gettingStarted:welcome> [Accessed 14 Jan. 2015].
- Businesscasestudies.co.uk, (2015). *Business strategy Business strategy business studies and business english | Business Case Studies*. [online] Available at: <http://businesscasestudies.co.uk/business-theory/strategy/business-strategy.html#axzz3fnGU8ohE> [Accessed 6 Apr. 2015].
- BusinessDictionary.com, (2015). *What is revenue model? definition and meaning*. [online] Available at: <http://www.businessdictionary.com/definition/revenue-model.html> [Accessed 15 Aug. 2015].
- Bryant, B. (2015). *How to Evaluate a Business Model*. [online] Small Business - Chron.com. Available at: <http://smallbusiness.chron.com/evaluate-business-model-502.html> [Accessed 19 Aug. 2015].

- Census.gov, (2015). *Population Estimates Research: Demographic Analysis - U.S Census Bureau*. [online] Available at: <https://www.census.gov/popest/research/demo-analysis.html> [Accessed 12 May 2015].
- Cez, V. (2015). *Bizagi - Business Process Management (BPM) software, BPMS and Workflow*. [online] Bizagi.com. Available at: <http://www.bizagi.com/en/what-we-do> [Accessed 17 May 2015].
- Consumerbarometer.com, (2015). *Consumer Barometer*. [online] Available at: https://www.consumerbarometer.com/en/graph-builder/?question=M1&filter=country:south_africa [Accessed 7 May 2015].
- Deathreference.com, (2015). *African Religions - rituals, world, burial, body, funeral, life, customs, beliefs, time*. [online] Available at: <http://www.deathreference.com/A-Bi/African-Religions.html> [Accessed 7 May 2015].
- Diffen.com, (2015). *Android vs iOS - Difference and Comparison | Diffen*. [online] Available at: http://www.diffen.com/difference/Android_vs_iOS [Accessed 16 Apr. 2015].
- Doingbusiness.org, (2015). *Doing Business in South Africa - World Bank Group*. [online] Available at: <http://www.doingbusiness.org/data/exploreeconomies/south-africa> [Accessed 14 Apr. 2015].
- Doves.co.za, (2015). *Doves - Leading Funeral Providers*. [online] Available at: <http://www.doves.co.za/index.aspx?PageId=10262> [Accessed 14 Apr. 2015].
- Economicfreedomfighters.org, (2014). *Economic Freedom Fighters - EFF | Supporter Website*. [online] Available at: <http://www.economicfreedomfighters.org/> [Accessed 19 Apr. 2015].
- Engdahl, F. and Rensfelt, J. (2011). Business model evaluation and generation system. *Master Theses*.
- Evens, V. (2015). *Amazon.com: FT Essential Guide to Developing a Business Strategy: How to Use Strategic Planning to Start Up or Grow Your Business (Financial Times Series) (9781292002613): Vaughan Evans: Books*. [online] Amazon.com. Available at: <http://www.amazon.com/Essential-Guide-Developing-Business-Strategy/dp/1292002611> [Accessed 20 Apr. 2015].
- Franken, H. (2015). *Bizzdesign Blog*. [online] Bizzdesign.com. Available at: <http://www.bizzdesign.com/blog/strat> [Accessed 27 Aug. 2015].
- Fripp, C. (2014). *South Africa's mobile penetration is 133% - htxt.africa*. [online] htxt.africa. Available at: <http://www.htxt.co.za/2014/10/23/south-africas-mobile-penetration-is-133/> [Accessed 14 May 2015].
- Garimella, K., Lees, M. and Williams, B. (2008). *BPM basics for dummies*. Hoboken, NJ: Wiley.
- Gartenstein, D. (2015). *How to Evaluate Business Models*. [online] Business & Entrepreneurship - azcentral.com. Available at: <http://yourbusiness.azcentral.com/evaluate-business-models-12908.html> [Accessed 22 Aug. 2015].
- Google.co.za, (2015). *pestel analysis - Google Search*. [online] Available at: https://www.google.co.za/search?q=pestel+analysis&rlz=1C1CHWA_enZA632ZA632&espv=2 [Accessed 12 May 2015].

- Hollardfuneralcover.co.za., (2015). *Funeral Cover From Hollard*. [online] Available at: <http://www.hollardfuneralcover.co.za>. [Accessed 16 May 2015].
- Imanipour, N., Talebi, K. and Rezazadeh, S. (n.d.). Obstacles in Business Process Management (BPM) Implementation and Adoption in SMEs. *SSRN Journal*.
- Indxmundi.com, (2015). *South Africa - Death rate - Historical Data Graphs per Year*. [online] Available at: <http://www.indxmundi.com/g/g.aspx?c=sf&v=26> [Accessed 16 May 2015].
- Infs1602.files.wordpress.com, (2015). [online] Available at: <https://infs1602.files.wordpress.com/2012/06/osterwalder-png.jpg> [Accessed 16 May 2015].
- Istqbexamcertification.com, (2015). *What is Validation in software testing? or What is software validation?*. [online] Available at: <http://istqbexamcertification.com/what-is-validation-in-software-testing-or-what-is-software-validation/> [Accessed 26 Aug. 2015].
- Investopedia, (2006). *Financial Modeling Definition | Investopedia*. [online] Available at: <http://www.investopedia.com/terms/f/financialmodeling.asp> [Accessed 15 Aug. 2015].
- Investopedia, (2010). *McKinsey 7S Model Definition | Investopedia*. [online] Available at: <http://www.investopedia.com/terms/m/mckinsey-7s-model.asp> [Accessed 16 May 2015].
- Jurevicius, O. (2015). *McKinsey 7s | Strategic Management Insight*. [online] Strategicmanagementinsight.com. Available at: <http://www.strategicmanagementinsight.com/tools/mckinsey-7s-model-framework.html> [Accessed 9 Apr. 2015].
- Jurevicius, O. (2015). *Porter's Five Forces | Strategic Management Insight*. [online] Strategicmanagementinsight.com. Available at: <http://www.strategicmanagementinsight.com/tools/porters-five-forces.html> [Accessed 16 May 2015].
- Koko, T. (2014). *Business model for 17SUNSAGRI*. Pretoria: University of Pretoria.
- Labourguide.co.za, (2015). *Your Guide to Labour Law in South Africa | Labour Guide*. [online] Available at: <http://www.labourguide.co.za/> [Accessed 13 Apr. 2015].
- Lucidchart.com, (2015). *Lucidchart | IT and Engineering*. [online] Available at: <https://www.lucidchart.com/home/it> [Accessed 17 May 2015].
- Managementstudyguide.com, (2015). *Marketing Mix - Meaning and its Elements*. [online] Available at: <http://www.managementstudyguide.com/marketing-mix.htm> [Accessed 11 Apr. 2015].
- Mann, S. (1995). Using the analytical hierarchy process for decision making in engineering applications: some challenges. *Inter'Journal of Industrial Engineering: Applications and Practice*, 2(1), pp.33-44.
- McLeod, S. (2015). *Questionnaires | Simply Psychology*. [online] Simplypsychology.org. Available at: <http://www.simplypsychology.org/questionnaires.html> [Accessed 23 Aug. 2015].)

- Metropolitan.co.za, (2015). *Metropolitan | Metropolitan*. [online] Available at: <http://www.metropolitan.co.za/> [Accessed 16 May 2015].
- Mindtools.com, (2015). *How to Make Decisions: Making the Best Possible Choices*. [online] Available at: http://www.mindtools.com/pages/article/newTED_00.htm [Accessed 14 May 2015].
- Mindtools.com, (2015). *The Marketing Mix and 4 Ps: Understanding How to Position Your Market Offering*. [online] Available at: http://www.mindtools.com/pages/article/newSTR_94.htm [Accessed 16 May 2015].
- Mindtools.com, (2015). *The McKinsey 7-S Framework: Ensuring That All Parts of Your Organization Work in Harmony*. [online] Available at: http://www.mindtools.com/pages/article/newSTR_91.htm [Accessed 16 May 2015].
- Nichols, L. (2015). *Definition - Literature Reviews - An Introduction - Sawyer Library Help & Research Guides at Suffolk University*. [online] Suffolk.libguides.com. Available at: <http://suffolk.libguides.com/LitReview> [Accessed 16 Mar. 2015].
- Oxlearn.com, (2015). *PESTLE - Macro Environmental Analysis*. [online] Available at: http://www.oxlearn.com/arg_Marketing-Resources-PESTLE---Macro-Environmental-Analysis_11_31 [Accessed 16 May 2015].
- Oxlearn.com, (2015). *Porter's Five Forces*. [online] Available at: http://www.oxlearn.com/arg_Marketing-Resources-Porter's-Five-Forces_11_29 [Accessed 16 May 2015].
- Oxlearn.com, (2015). *SWOT, swot analysis*. [online] Available at: http://www.oxlearn.com/arg_Marketing-Resources-SWOT-Analysis_11_26 [Accessed 16 May 2015].
- Porter, M. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 1(1).
- Publicnewshub.com, (2015). *DA and EFF Growing Faster than the ANC on Social Networks | The Public News Hub*. [online] Available at: <http://www.publicnewshub.com/da-eff-growing-faster-anc-social-networks/> [Accessed 16 May 2015].
- Punjabi, K. (2013). *Validate or Die: Using Validation to Build the Right Product - MindTheProduct*. [online] MindTheProduct. Available at: <http://www.mindtheproduct.com/2013/09/validate-or-die-using-validation-to-build-the-right-product/> [Accessed 17 Aug. 2015].
- ReQtest, (2012). *Functional Requirements vs Non Functional Requirements*. [online] Available at: <http://reqtest.com/requirements-blog/functional-vs-non-functional-requirements/> [Accessed 19 Aug. 2015].
- Reid, C. (2015). *A Practical Guide to Planning & Running Process Improvement Workshops*. 1st ed
- Sassa.gov.za, (2015). *Older Persons*. [online] Available at: <http://www.sassa.gov.za/index.php/social-grants/grants-for-older-persons> [Accessed 16 May 2015].

- Seal, W. (2011). *Management Accounting with Connect Plus Card*. London: McGraw-Hill Education - Europe.
- SearchCRM, (2015). *What is entity relationship diagram? - Definition from WhatIs.com*. [online] Available at: <http://searchcrm.techtarget.com/definition/entity-relationship-diagram> [Accessed 16 May 2015].
- Slideshare.net, (2015). *4 Key Benefits to Integrating BPMN and DMN*. [online] Available at: <http://www.slideshare.net/jamet123/4-key-benefits-to-integrating-bpmn-and-dmn-webinar> [Accessed 26 Jan. 2015].
- Smallbusiness.wa.gov.au, (2015). *Sales Forecast*. [online] Available at: <http://www.smallbusiness.wa.gov.au/business-topics/money-tax-and-legal/money-matters/financial-forecasts/sales-forecast/> [Accessed 15 Aug. 2015].
- Small Business BC, (2011). *Understanding Your Competition | Small Business BC*. [online] Available at: <http://smallbusinessbc.ca/article/understanding-your-competition/> [Accessed 11 Aug. 2015]
- Smartdraw.com, (2015). *Entity Relationship Diagram - Common ERD Symbols and Notations*. [online] Available at: <http://www.smartdraw.com/entity-relationship-diagram/> [Accessed 16 May 2015].
- Stephen D. Simpson, C. (2012). *Financial Models You Can Create With Excel*. [online] Investopedia. Available at: <http://www.investopedia.com/financial-edge/0812/financial-models-you-can-create-with-excel.aspx> [Accessed 10 Jul. 2015].
- Study.com, (2015). *Psychographic Segmentation in Marketing: Definition, Examples & Quiz | Study.com*. [online] Available at: <http://study.com/academy/lesson/psychographic-segmentation-in-marketing-definition-examples-quiz.html> [Accessed 16 May 2015].
- TheFreeDictionary.com, (2015). *mock-up*. [online] Available at: <http://www.thefreedictionary.com/mock-up> [Accessed 15 Jun. 2015].
- Upload.wikimedia.org, (2015). [online] Available at: http://upload.wikimedia.org/wikipedia/commons/thumb/0/0b/SWOT_en.svg/1000px-SWOT_en.svg.png [Accessed 16 May 2015].
- Vliet, V. (2014). *Value Disciplines (Treacy and Wiersema) - ToolsHero*. [online] Management tools for the manager - ToolsHero. Available at: <http://www.toolshero.com/value-disciplines-treacy-wiersma> [Accessed 27 Aug. 2015].
- Weiss, D. (2010). *Business model innovation in venture capital investment funds: Business model due diligence in venture appraisal*. Zeppelin University: Master Thesis.
- World wide quarterly mobile, I. (2015). *IDC: Smartphone OS Market Share*. [online] www.idc.com. Available at: <http://www.idc.com/prodserv/smartphone-os-market-share.jsp> [Accessed 29 Feb. 2015].