

Framework for identifying systemic environmental factors causing underperformance in business processes

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Abstract

Performance management systems are integral to many organisations. On all levels of management such performance measurements are used to drive a desired behaviour and business units, departments, as well as individuals are rewarded for meeting or exceeding set targets. In large silo-structured organisations, divisions are particularly focused on their own targets and responsibilities. This may result in a diminished view of the effect their strategies and processes may have on overall stakeholder value. These divisions execute strategies to enhance the achievement of their own goal. The execution of these strategies sometimes hampers other divisions in meeting their goals. The net effect of this hampering may result in reduced stakeholder value.

A mechanism is needed through which organisational divisions can evaluate the systemic environment, in order to identify hampering processes. The case may be that their processes are hampering other divisions, or that their processes as such are being hampered. The main objective of this research study was to develop such a mechanism. This mechanism emerged through a framework which can be used during investigations of hampering processes. Such investigation is conducted by following six predefined steps to guide the investigator in identifying the hampering factors. This framework was developed by combining primarily three disciplines: Systems thinking, Performance evaluation and Supplier perceived value. The evaluation framework was validated through three case studies. In all of the cases the framework delivered the expected result. It is thus concluded that organisations can apply the framework to help identify systemic environmental factors that may hamper business processes.

Opsomming

Prestasiebestuurstelsels maak 'n integrale deel uit van die meeste organisasies. Prestasiebeoordeling word op alle vlakke van bestuur ingespan om die verlangde gedrag aan te moedig. Sake-eenhede, departemente en individue word vergoed indien hulle die gestelde doelwitte haal of oorskry. In groot silo-gedrewe organisasies is afdelings grootliks gefokus op hulle eie verantwoordelikhede en om hulle eie doelwitte te bereik. Gevolglik verminder dit soms die uitwerking wat die uitkomst van hulle strategieë en prosesse het op die belanghebbendes van die organisasie. Hierdie afdelings voer dus strategieë uit om hulle eie doelwitte te behaal. Soms verhinder hierdie strategieë ander afdelings om hulle doelwitte te bereik. Die basiese effek hiervan kan wees dat minder waarde aan die belanghebbendes deurgegee word.

'n Organisasie het dus 'n meganisme nodig om die sistemiese omgewing mee te evalueer en sodoende prosesse te identifiseer wat belemmer is of wat belemmering kan veroorsaak. Die hoofdoel van hierdie navorsingstudie was om so 'n meganisme te ontwikkel. Hierdie meganisme het na vore gekom in 'n raamwerk wat tydens ondersoek gebruik kan word om belemmering te identifiseer. Die raamwerk is ontwikkel deur hoofsaaklik drie dissiplines in gedagte te hou: Sistemiese Benadering, Prestasie-beoordeling en die Begrip van verskafferwaarde. Die raamwerk is aan die hand van drie gevallestudies getoets en in al drie gevalle het die raamwerk die verwagte resultate opgelewer. Die gevolgtrekking is dus gemaak dat organisasies wel die raamwerk kan toegepas kan om die sistemiese omgewing te evalueer en sodoende die belemmering van prosesse op mikrovlak uit te wys.

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I dare not boast of what I have done;
all praises to God for victories I have won;
for when I am weak through Him I am strong;
all glory to God for to Him I belong.

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Holism

“Life is not a random accident, and the basic drives of the human psyche include far more than the drive for sex and self-gratification. Matter, life and mind are consistent elements within an overall process of great complexity, yet coherent and harmonious design. The universe is a **seamless whole**, evolving over eons of cosmic time and producing conditions where life can emerge, and then mind. Life is an **intimate web of relations** that evolves in its own right, interfacing and **integrating its myriad diverse elements**. The biosphere is born within the womb of the universe, and mind and consciousness are born in the womb of the biosphere. **Nothing is independent** of any other thing. Our body and our mind are part of the biosphere, and they resonate with the web of life on Earth.”

(Járos 2002)

Part 1: Introduction

Organisations typically consist of multiple specialised and supporting organisational or functional units. None of these units can exist autonomously and independently of the others, or deliver products or services to add recognisable value to the consumer. Rather, these organisational units form part of a complex web of non-linear interactions. These interactions enable the organisation as a whole to deliver value to the consumer through the delivery of products or services, or both.

For decades, Strategic Management methodologies have guided organisations to set themselves missions, visions and objectives. It is important to define plans on how to achieve these objectives and to know when these objectives have been met successfully. This is done by measuring such objectives against an agreed performance norm. Executive teams interpret these strategies in the context of the organisational unit or function for which they are responsible. Thereby they define for the unit objectives and plans, which are aligned with the responsibility of the unit. These objectives and plans are narrower than those of the organisation as a whole, since executive teams know that collectively all units need to deliver on their individual parts for the organisation to deliver as a whole. As a result this pattern is cascaded down through lower levels of management where each subunit narrows the governing objective to be aligned with that subunits' speciality. This is done with the knowledge that when all these objectives are aggregated, the organisational unit will deliver as a whole. Managers and eventually executives monitor whether subunits achieve their objectives as well as monitor units as a whole. In order to achieve this, many methodologies are applied, such as the Balance Scorecard.

Part 1: Introduction

Naturally, no unit or subunit aim to fail, or not even to underperform in the achievement of their defined objectives; hence strategies are defined diligently to meet the set objectives. Knowing the complexity of the environment, each unit and subunit is armed with back-up strategies in their arsenal should any of their strategies are shown to be underperforming.

This exaggerated focus on local objectives and the silo driven approach of specialised functions may result in one function hampering another in the attempt to achieve its own objective. On a business process level this typically means the output or the outcome of a specific process is contributing positively towards achieving the objective of the unit that owns the process. However, the same output or outcome may be contributing negatively to another unit's attempt in achieving its objective.

1.1 Hypothesis

This study deals with the hypothesis that an evaluation framework can be developed through which:

- H1.** business processes and its associated outputs and outcomes can be evaluated to determine whether it may affect the achievement of any other objectives within the organisation negatively;
- H2.** underperforming business processes can be evaluated in the context of the systemic environment to determine whether these environmental impacts contribute to the process' underperformance;
- H3.** systemic interactions between organisational units leading to underperformance can be identified.

Such a framework can then be applied as part of the evaluation of business processes. This can be used to guide management on whether the implementation and execution of the process concerned is justified, and whether the overall contribution to the organisation as a whole is still considered to be positive.

1.2 Research objectives

The main goal of this research study is to:

Establish a framework through which organisations can identify systemic environmental factors that cause business processes to underperform.

It is the researcher's contention that it is possible to develop such a framework to guide the investigation through predefined steps. Each step in the investigation should be regarded as a process in its own right and which transforms known inputs into outputs. These outputs are absorbed by the following step in the framework as inputs. It is believed that by following these investigational steps the investigator will systematically be guided through a complex and non-linear process of discovering systemic influences which may lead to the underperformance of the process under investigation.

1.3 Research methodology

Figure 1-1 below depicts the research approach followed in this research study. The evaluation framework to be developed is depicted at the centre of the diagram. Development of this framework took as input five areas of discipline. Each of these areas is shown in the ovals around the evaluation framework. A high level description of each of these areas is given below the diagram. Finally, the evaluation framework is validated through the use of real-world case studies. The five areas of discipline and the case studies are all connected with a circle, which indicates the interconnectedness and the combined effect of these disciplines on the evaluation framework.



Figure 1-1: Research methodology

Part 1: Introduction

The area of *Systems thinking* was studied and used as input to develop the framework, enabling the framework to identify systemic environmental factors. The evaluation framework needs a mechanism to take systemic environmental factors into account. This cannot be achieved without cognisance of Systems thinking.

Processes' performance is being hampered and the objective of the framework is to highlight the factors which impede performance in a specific case. For this an understanding of some of the mechanisms of *Performance evaluation* need to be understood.

The processes which are being hampered are executed within a *Commercial landscape*. Systemic environmental factors that influence the performance of the process under investigation cannot be evaluated without the basic understanding of this landscape and the forces operating within it. The commercial environment is well-known to the researcher. Nevertheless several interviews have been conducted and observations drawn to provide better understanding of the challenges.

Supplier perceived value is an important discipline to consider since processes produce outputs which are consumed by customers. Irrespective of whether these customers are external to the organisation or internal (e.g. one business unit consuming the output of another unit), a supplier/consumer relationship exists. Consumers of process output have a perceived value of that output, which impacts the relationship between them. It is important to understand the factors which influence perceived value. This is because the customer's perceived value of the supplier's process forms part of the systemic environment and may impact on the performance of that process.

A process' performance hardly ever gets impacted on only by the environment. The mechanism *Process improvement* should form part of the investigation. Methodologies, such as Lean and Six Sigma may also impact on the performance of the process. The researcher has a sound background and experience regarding business processes. This experience inevitably influenced the compiling of the evaluation framework.

The *Case study* approach was selected to validate the evaluation framework. These case studies entail real-world scenarios, which exist in the organisation at the time when the research was conducted. The last of the three case studies was an actual project, which was initiated within the organisation and which contributed extensively to the formulation of this research topic.

1.4 Structure of the thesis

The thesis consists of six main parts. **Figure 1-1** as discussed in the Research methodology is repeated below in **Figure 1-2**, augmented with depictions of sections of this thesis.

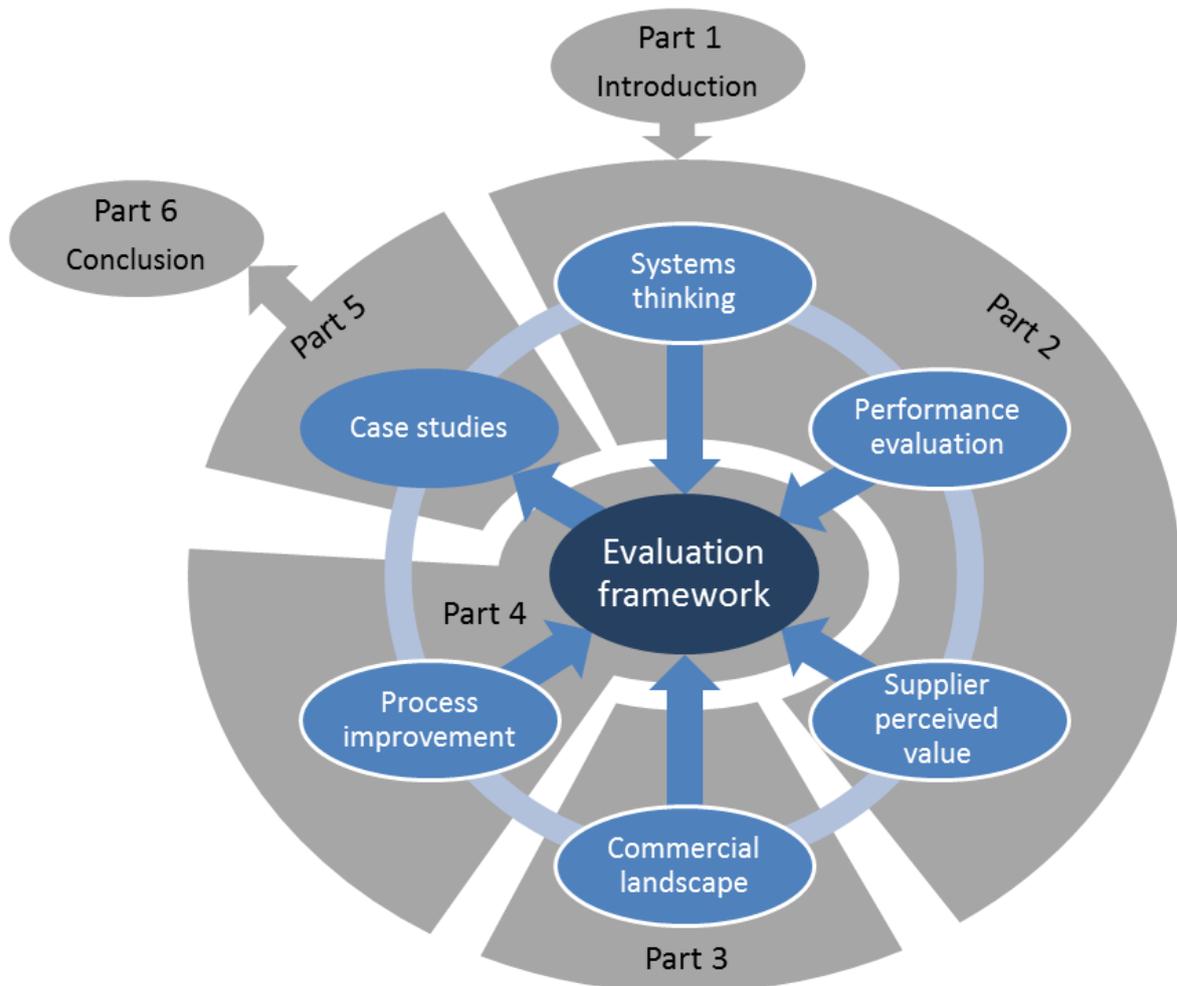


Figure 1-2: The structure of this thesis

Part 1 gives the introduction to the research. The introduction provides the background on the problem, state the hypothesis and posits the research objectives and methodology.

Part 2 focuses on facilitating understanding of the three main disciplines employed during the development of the evaluation framework. These three disciplines are *Systems thinking*, *Performance evaluation* and *Supplier perceived value*.

Part 3 aims at explaining the commercial environment and the detail of the problem on which the present study is focusing. It is worth noting that although the commercial problem manifests in

Part 1: Introduction

many different commercial environments, the research associated with this thesis focuses specifically on the environment of the short term insurance company, Santam.

Part 4 posits a solution through further use of the tools mentioned in Part 2, and complimented by research on specific topics and connections between various topics.

Part 5 employs three case studies to help validate the proposed evaluation framework.

Part 6 concludes this thesis by verifying the achievement of the research objectives and making recommendations for future research topics.

Part 2: Disciplines employed in the problem-solving approach

Primarily three disciplines are being incorporated into the present study and a brief description of each discipline is provided below. Firstly, the basics of the Systems Approach are explained, followed by the expounding of the organisational performance management framework together with some general performance management concepts. Lastly the concepts regarding Supplier perceived value are explained.

2.1 Discipline 1: The systems approach – a high-level explanation

Historically, physical sciences have dominated the problem-solving approach. This caused the approach to be reductionist – i.e. reducing a whole unit into its parts to be studied and understood individually and in isolation. Biological sciences have attempted to understand living organisms by studying individual processes and the functioning of smaller parts, which in turn were understood by breaking them into even smaller aspects to be studied. Modern biology, however, has the viewpoint that these individual parts should not and could not be studied in isolation. This is because progress in learning and discovery requires investigation of not only the parts but also of the interaction and the behaviour of the part in isolation, as well as its function within the organism as a whole.

This trend of considering the whole rather than the sum of the parts is emerging in multiple disciplines in ‘hard’ as well as ‘softer’ sciences.

- In medicine (‘hard’ science) the *organism-as-a-whole* is a clear focus in fields such as the theory of human constitutions and endocrinology (the study of the glands and their secretions).
- In classical psychology (‘soft’ science) an attempt was made to explain mental phenomena through elementary parts, such as sensation or emotion. Gestalt psychology (‘soft’ science) showed that the classical approach is based on a primitive view; psychological entities are not a mere sum of these elementary parts, but a complex unit governed by dynamic laws (von Bertalanffy 1950).

Some researchers are of the opinion that this thinking approach can be dated back to historic periods before the Middle Ages. However, in modern times, this approach has formally gained academic grounds in the mid-20th century and is called General systems theory, the Systems approach or System thinking.

Part 2: Disciplines employed in the problem-solving approach

The question is: what is a systems approach and how does it differ from the typical and popular analytical approach? To answer this, one needs to consider how systems are being understood through pure analysis and then compare this view with the systems approach. To understand a system through analysis, the system must first be taken apart – broken down into its smaller, and eventually, its smallest parts. Thereafter the functions and behaviour of each individual part is explained and lastly these functions and behaviours are aggregated to elucidate the function and the behaviour of the system as a whole. Thus, in analyses the following question is asked and answered: “What parts make up the system to be explained and what does each part do?” This is also referred to as “downward thinking”, narrowing down the boundaries of the part under investigation in order to explain its individual function.

The other dominant facet of analysis is cause-and-effect. Each effect has a cause which can be clearly defined and each of these causes is taken to be sufficient for its effect. To explain each effect, it was not required to investigate further once the cause was found. This is a mechanistic, linear approach and ignores the environment in which the effect is realised. Laboratories were used to proof the linear connection between cause and effect, which was successful since laboratories usually are environment-free. Non-linear causes are eliminated from the environment in order to isolate the cause under investigation (Ackoff 1973).

In contrast, understanding a system through systems thinking, one would first determine: Of what larger system does the system under investigation form a part? A system can be, and almost always is, part of multiple containing systems. However, in a specific context, each system is part of a primary system for that context. This does not imply that non-primary containing systems can be ignored when investigating the specific system at hand. All the containing systems may affect the system under investigation. Once the primary system for a specific context is identified, one should be able to understand the purpose of that containing system. In addition, the system under investigation also has a specific role to fulfil within the containing system and the specifics of this role should be determined. Lastly, each system constantly interacts with other systems, some of which may be in the same containing system that is under investigation, and some may be outside this containing system.

Complexity is tightly associated with Systems thinking and is explained better through an example. Consider the following question: “What is the purpose of a specific human being?” In answering, it is fair to say a human being comprises a complex system of bio- and psychological processes. However analysing any of these processes will probably not answer the question of a human’s purpose. Systems thinking will enquire about the larger system this human being is part of. Furthermore, one

Part 2: Disciplines employed in the problem-solving approach

assumes that the human being has a family, belongs to a religious group as well as social groups, and is working for an employer which is a multi-national organisation. The question on purpose is thus without context and the answer can be significantly different when it is answered in terms of the family system as against the religious group system. The main question therefore needs to be rephrased: "What is the purpose of a specific human being within the multi-national organisation?" The primary containing system is thus the multi-national organisation of which the biological and psychological system (the human being) is part. The question remains: What is the purpose of the containing system? One can assume it is a profit oriented publicly listed company – and thus the purpose is to increase shareholder value through delivering products or services, or both. Thus: what role does the bio- and psychological system play in this multi-national organisation? If one further assumes the leadership role to be that of Chief Executive, then the purpose becomes clear. The purpose of the human being within the context of a multi-national organisation is thus to lead the organisation in such a way that it would increase shareholder value through delivering products or services.

Systems thinking is thus not an attempt to pull systems apart, but rather to draw systems together within a specific context, in order to understand the purpose of the greater whole. It is important to realise the interdependencies between systems. To pull the Chief Executive out of the organisation and leaving the organisation leaderless, will hold obvious dramatic effects for the organisation. However, the human being as such can also not fulfil the role of Chief Executive in the family or religious system of which this person forms also a part. Thus, pulling the system apart causes its parts to lose some of these essential properties. The Chief Executive simply cannot act as such if he or she is not employed within the organisational system. Thus analysing isolated parts does not take into account these "lost" properties and may yield incomplete results. One should also realise that the Chief Executive can possibly fulfil his or her role within the context of the organisation very well, but fare poorly at the role within the family or the religious system.

One can go a step further by assuming the organisation is going through an economically taxing period. Such circumstances places strain on the organisational system to achieve its purpose. This strain is carried on to the Chief Executive who is put under pressure to achieve the envisaged purpose. Because this bio- and psychological system is heavily impacted, the same human being is affected whilst fulfilling the role within other systems, such as the family system. The employer system is thus impacting the family system through the common bio- and psychological system. Furthermore one assumes that this condition remains for an extended period, but eventually the economy recovers and the Chief Executive takes less strain within the employer system. However,

Part 2: Disciplines employed in the problem-solving approach

the family system has taken so much strain. This has a delayed effect relative to the turn in the economy, causing the common bio-psychological system to still take strain from the family system. Since this human being is heavily influenced by the stress from the family system, this impacts on his or her role within the employer system. This accumulated stress negatively impacts on this person's leadership ability and eventually – if the issue is not addressed – it can cause damage to the organisation as a whole. Again, if the organisation is impacted negatively, the Chief Executive is put under strain, which further impacts on the family and other systems. This negative re-enforcing loop can continue until a dramatic change takes place, which breaks the loop and causes the system to take on a different state.

However, if the human being with the role of Chief Executive in a multi-national organisation is investigated by applying a reductionist paradigm, it would be natural to isolate the Chief Executive within the boundaries of the organisation. As a result the analyst could easily be blinded to the strain placed on the Chief Executive by his family.

It should also be clear that System Thinking can easily spiral into a philosophical debate with limited practical significance for the commercial environment. This thesis will not embark on such meta-theoretical debates regarding Systems thinking. This method will merely be employed as a tool to make sense from a complex commercial environment, which usually is filled with unexpected change, non-linearity and nondeterministic events.

In order to use this tool effectively, a few basics should be stated. Firstly the definition of a system is important. Ackoff (Ackoff 1973) defines a system as:

A set of interrelated elements of any kind; for example concepts (as in the number system), objects (as in the telephone or the human body), or people (as in a society). The set of elements displays the following three properties:

- 1. The properties or behaviour of each part of the set has an effect on the properties or behaviour of the set as a whole.*
- 2. The properties and behaviour of each part and the way they affect the whole, depend on the properties and behaviours of at least one other part in the set. Therefore, no part has an independent effect on the whole.*
- 3. Every possible subgroup of elements in the set displays the first two properties. Each has an effect, and none can have an independent effect on the whole. Therefore, the elements cannot be organised into independent subgroups.*

Part 2: Disciplines employed in the problem-solving approach

Notwithstanding the accuracy of the definition above, the following exposition is more practical in a commercial context:

A system is an organised, purposeful structure that consists of interrelated and interdependent elements (components, entities, factors, members, parts etc.). These elements continually influence one another (directly or indirectly) to maintain their activity and the existence of the system, in order to achieve the goal of the system. (The Business Dictionary n.d.)

Systems thinking has also been referred to as the “art and science of making reliable inferences about behaviour by developing an increasingly deep understanding of underlying structure” (Hutchinson & Warren 2003). One of the focus areas of the evaluation framework proposed in this research study is the deep understanding of the underlying structure of the commercial environment in which business processes are shown to be underperforming.

2.1.1 A few critical systems thinking concepts

Below an explanation is provided of a few basic concepts that are regularly employed in Systems thinking.

Holism

Holism refers to the view of combined parts and the relationship between these parts. The South African ideologist and statesman Jan Smuts has made the first reference to Holism in his book, *Holism and Evolution*, published in 1926. Holism refers to the view that a whole consists of more than the sum of its parts (Járos 2002).

Parts

Parts refer to the entities or elements of a system. Arranging these parts into a definitive structure results in the creation of a whole (Járos 2002). A typical example is the parts of car. When the parts are thrown together in a bag, it doesn't make a car. Only when these parts are arranged in a very particular and structured way, will it result in a car. It is important to realise that parts also can be systems in their own right. A car's on-board computer system is a good example of such a phenomenon. This IT system forms part of the car and without it the car is useless. However, this system can be taken out of the car and connected to a test bench where all its functions can be tested independently of the car.

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Emergence

Emergence is described as the unit that exists after the parts were synthesised to form a new whole, which did not exist before the synthesis (Járos 2002). Emergent properties thus refer to the properties of the whole, which cannot be derived by merely adding up the properties of the parts. The car system referred to previously has an emergent property of transport. The vehicle can carry humans or goods over long distances – a feat that a bag filled with car parts cannot perform. The concept of *emergence* has however also been criticised. Hutchinson argues that this term is used whenever the human race cannot yet explain a tendency (Hutchinson & Warren 2003). He argues that in the 13th century the properties of water would not necessarily have been obvious during the synthesis of Oxygen and Hydrogen. Back then, properties like viscosity or vapour pressure may have been considered *emergent properties* merely owing to the condition that these properties could not yet be explained.

Unintended consequences

The concept of unintended consequences emerges regularly during investigations that use Systems thinking. This concept represents exactly what the term expresses, and sometimes is also referred to as unexpected consequences. These points to consequences of a decision or an action, which a decision-maker initially did not anticipate or intend. Typically such consequences are delayed and emerge long after the decision or action has been taken (Jackson 2003).

Espoused theory versus Theory-in-use

The things people say they do and the things people really do are often not the same. Espoused theory refers to what people *say* they do. People believe their behaviour is driven by certain world views and value systems. These are the espoused theories. Often, their actual deeds and actions reflect a different value system. Such a value system is referred to as the Theory-in-use (Senge 1990; Savaya & Gardner 2012). This is an important concept that needs to be understood when applying the evaluation framework proposed in the present study. One of the steps of such a framework is conducting interviews to establish viewpoints of individuals and groups. During this step in the research process it is crucial to distinguish between Espoused theories and Theories-in-use.

“... which leads to ...”

This phrase is often used in the Systems thinking and specifically in the development of causal loop diagrams (see paragraph 2.1.2 for the discussion on causal loop diagrams). Using this term is an indication of cause and effect. Thus a system thinker should be alert when respondents use this term during interviews. In the case studies (Part 5 of the present study) it will become clear that this is a

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prominent term that investigators encounter during investigations; hence this term contributes to the development of causal loop diagrams.

2.1.2 Applying Systems thinking through causal loop diagrams

As mentioned previously, this research study greatly employs Systems thinking to understand the problem-area. Systems thinking is concerned with the relationship between the parts of the whole – which thus makes up the focus of systems thinking models. There are several mechanisms to model relationships, interactions and causal influence. The present study uses diagrams depicting causal loops to model such relationships and interactions. Conceptually speaking, causal loop diagrams emerge from the natural thought process. Many researchers are of the opinion that, from the modelling techniques available, causal loops are the easiest to learn (Kunc 2008).

In its most basic form, the causal loop diagram captures at least two concepts and the influence these have on each other. The convention is to link concepts with arrows, where the direction of the arrow depicts the direction of the causal relationship. The concept at the head of the arrow is affected by the concept at the tail of the arrow (Burgess 1998). The polarity of the effect – i.e. an increase or a decrease, is indicated by either a letter or a sign (positive or negative) (Lane 2008). The convention used in this thesis is a letter, i.e. an “s” for same or an “o” for opposite. If the relationship between two concepts is marked as “s” for same, it means that an increase in the concept at the tail of the arrow causes an increase in the concept at the head of the arrow. Thus, as in **Figure 2-1**, an *increase* in *Rainfall* (a concept at the tail of the arrow) causes an *increase* in the *Water availability* (the concept at the head of the arrow) and is thus indicated by the “s” relationship.

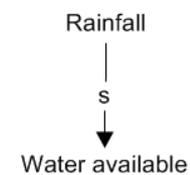


Figure 2-1: A "same" relationship

On the other hand, **Figure 2-2** shows an opposite relationship, i.e. an *increase* in the *Water used* causes a *decrease* in the *Water available*.

Concepts can be the origin or the destination of multiple causal relationships or interactions. In **Figure 2-3** below the concept of *Plant density* is common to two causal loops. As *Plant density increases*, the *Soil depth decreases* and the *Water used increases* (Roberts 1978).

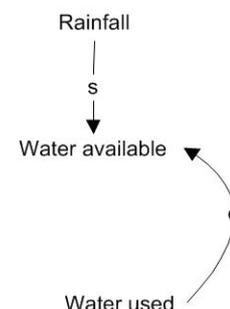


Figure 2-2: An "opposite" relationship

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Causation can also form a reinforcing loop, where reinforcement is indicated with a curly arrow inside the loop. Reinforcement can either be positive or negative. As in **Figure 2-4**, an *increase* in *Births* causes an *increase* in the *Population*, which causes an *increase* in *Births*, and so on (Lazanski & Kljajić 2006).

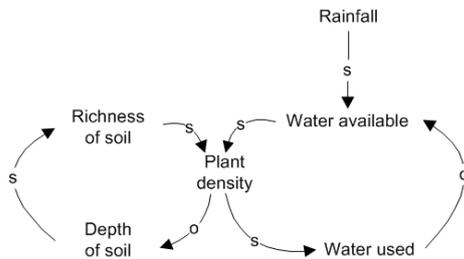


Figure 2-3: Concepts with many relationships

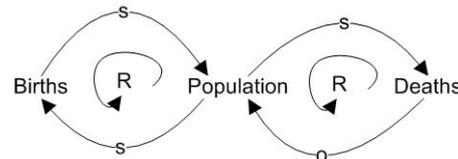


Figure 2-4: Reinforcement

The convention is to model with s-type relationship as far as possible (Burgess 1998). It will be inevitable and very unlikely never to encounter o-type relationships, but reading a model using primarily s-type relationships is found to be easier.

It is important to note the advantages and limitations of causal loop diagrams. A great advantage is the fact that modeling through causal loops depends on a very limited set of symbols. These symbols easily can be learned by senior staff who normally focus on strategic thinking and not on conceptual modeling. The high level of detail is also very appealing to senior staff and causal loops quickly can develop to a point where senior staff can envisage “what is *really* happening here”. Such loops depends on simple language, and only white boards or flip charts are needed to model it. This makes it easy for conceptual thinkers to debate and to challenge such models (Lane 2008).

However, together with the advantage of simplicity, causal loop diagrams also hold limitations. Several definitions on polarity exist. Therefore a lack of knowledge on which definition the author of a causal loop diagram used during modeling may lead to an incorrect interpretation of the result. Systems dynamics deal with continuous behaviors and not with discrete events. If discrete events have to be included into models, it must be done with caution. According to the above example in **Figure 2-4**, births and deaths are by nature discrete events. However, births and deaths occurs all the time and have a continuous effect on population. Inexperienced modelers may thus define the concepts as events, which may lead to incorrect defining of the system’s behavior (Schaffernicht 2010). Schaffernicht suggests that inexperienced modelers should seek the assistance of experienced system dynamists when it comes to defining polarity.

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One relatively safe approach to define causality is to use the following construct consistently: An increase in <Concept A> causes (or leads to) an increase in <Concept B>. As an example, with reference to **Figure 2-3**, an increase in *Rainfall* causes an increase of the *Water available*. Similarly, an increase in the *Water used* leads to a decrease in the *Water available* (Wolstenholme 1992).

2.2 Discipline 2: Performance evaluation

2.2.1 Rouse’s Integral Framework for Performance Measurement

Part 4 of the present study is devoted to the development of the evaluation framework as a proposed solution. Rouse’s Integral Framework for Performance Management (Rouse & Putterill 2003) forms a pivotal part of the solution. Therefore the basics of the framework need to be discussed and expounded in this section.

Rouse refers to this framework as a macro-micro framework for performance management. *Macro*, since the highest level of organisational strategy is considered and *micro*, since the most detailed activity and core elements of the process are considered in the same model. This model is presented below in **Figure 2-5** and following that, a brief discussion of the different sections of the framework. It should be noted that the elements of the framework are discussed from the centre outwards.

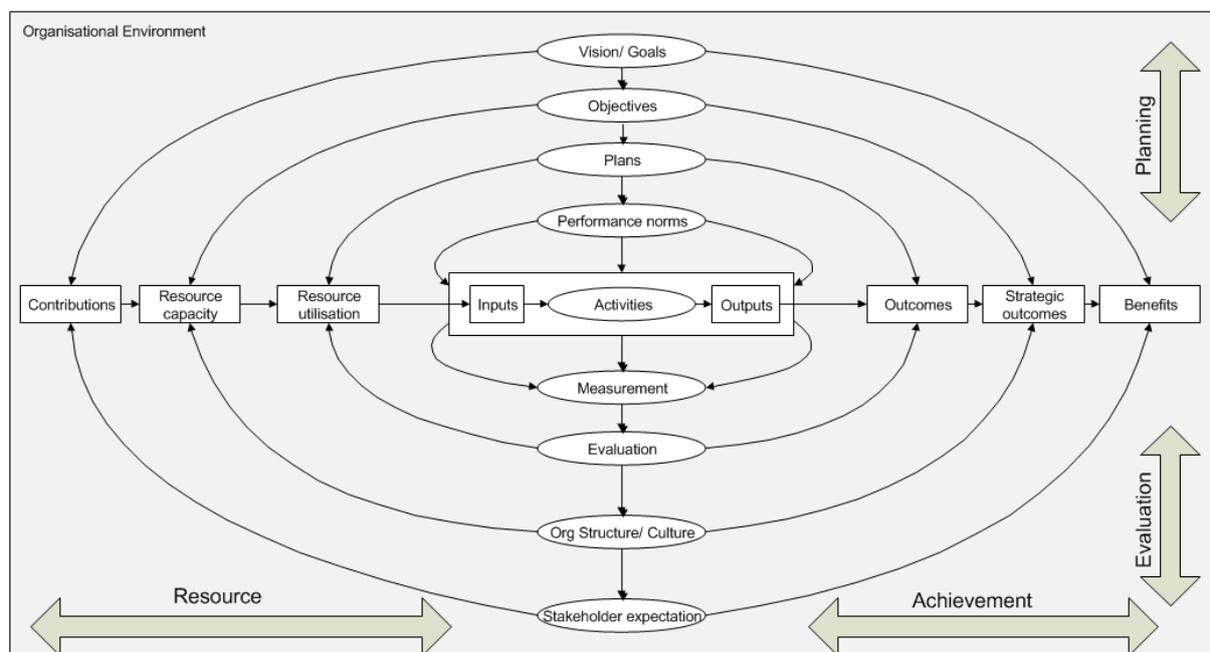


Figure 2-5: Rouse’s Integral Framework for Performance Measurement

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2.2.1.1 *The basic process core elements*

At the heart of all the processes lie the basics: the need to produce an output. The output is the result of a transforming activity. An activity takes an input when it is triggered and transforms this to an output. This is depicted in the block in the centre of the framework. In the present study, this block will be referred to as the process block. To ensure consistent and quality output there has to be measurements. Measurement of inputs and outputs are depicted in the oval just below the process block. The arrows from the inputs and outputs to the measurement oval indicate the measurement of the inputs and outputs. The results of the measurement are only useful when compared to a performance norm. The performance norm is depicted in the oval above the process block.

2.2.1.2 *The vertical Planning-Evaluation axis and the horizontal Resource-Achievement axis*

This narrowed down view of the process block is part of a greater whole. The greater whole entails the broader organisational system, which is depicted by four axes. The vertical axis represents planning and evaluation, and the horizontal axis represents resource and achievement. On the Planning axis, performance norms are a result of planning for processes. These are represented by the Plan oval.

On the Evaluation axis, measurement provides the information about the process as seen above. However, evaluation brings into the consideration the contextual information. The contextual information are seen as the external factors, which have been identified as those aspects affecting the performance of the process. This is represented by the Evaluation oval in **Figure 2-5**. Correct evaluation of the inputs' measurement results may be seen as a feed-forward control loop, informing attributes of the output, before the output has been generated. In other words, if inputs are measured proactively before it is transformed to outputs, the quality of the outputs can be anticipated through proper evaluation. Again, in the context of the present study, the concept of evaluation forms an important part of performance measurement – particularly the evaluation of the measurement results of the activity inputs and of the resources.

On the horizontal axis on the left of the diagram, lies the Resource axis and on the right the Achievement axis of the integral framework. For the activity in the process block to transform inputs into outputs, organisational resources are utilised. Resource utilisation is the first block left from the process block on the Resource axis. Outputs of the activity result in outcomes that are modelled on the Achievement axis on the right of the process block. Outcomes are considered the value which

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the output brings to the customer. In the broadest sense, outcomes represent what is achieved by the activity concerned. This covers the output consumed by the customer, but also the manner in which the customer experienced the execution of the activity.

Efficiency of this activity in the process block is represented by the relationship between the input and the output measures, whereas the effectiveness of the activity is represented through the relationship between the outcome and the output.

2.2.1.3 Organisational context

The organisational context entails taking an even broader view of the process block. In the organisational context four additional dimensions are considered. These are the Organisational objectives on the Planning Axis, the organisations Resource capacity on the Resource axis, the Organisational structure and culture on the Evaluation axis as well as the Strategic outcomes on the Achievement axis.

Objectives are the precursor to plans, and plans naturally emerge from the defining of the objectives. An organisation has to have the correct resource capacity in order to pursue their objectives. This resource capacity refers to all resource dimensions of the organisation, i.e. people, process and technology. People resources are integral to any organisation and refer to the size of workforce, as well as the human capability of the workforce. This dimension emerged strongly in the research and will receive more attention later. Strategic outcomes are a subset of all outcomes and are aligned with the objectives of the organisation. In a typical profit oriented organisation, profit and growth will be seen as a strategic outcome. To support the processes which drive these strategic outcomes, the organisation must have a defined structure. Combining strategic outcomes and the human side of the resource capacity dimension, may lead to a very specific organisation culture. This organisation culture and structure informs the evaluation processes and dimensions of that company.

2.2.1.4 Overall framework: The full organisational environment

Lastly, for a complete view of the organisational environment, the remainder of the dimensions needs to be considered. These entail the following: Vision and goals, Contribution, Stakeholder Expectation and Benefits. In classic strategic management, the organisations' vision and goals inform the objectives set by the organisational leadership. Stakeholders are defined as any entity, group or individual, who can affect or who is affected by the objectives. Stakeholders provide contributions and expect benefits in return. The goals of the organisation are aligned to convert these contributions to benefits through executing processes. If overall benefits are not meeting the

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stakeholders' expectations, it may cause stakeholders to reduce their contributions, which may lead the organisation to downsizing or even failure.

The following facts are important to realise:

- i. The frequency and time-horizons of the performance measurement system are directly proportionate to the distance from the centre of the framework. At the centre of the framework – at process level – measurement and control should occur at short intervals. However, on the outer circle of the framework the evaluation and measurement of benefits are done at much lower frequencies and thus much longer reporting periods.
- ii. There are two very important cascading effects to note in this case. Firstly, the effect of goals cascading to performance norms should be noted and secondly, how stakeholder expectations inform the evaluation and measurement of these norms. Thus the performance measurement of lower level control systems must emphasise the organisational goals and the stakeholders' expectations.
- iii. The background of the framework depicts the influence which the organisational environment exerts on all levels of the framework.

2.2.1.5 Use and presentation of the framework

The presentation of Rouse's Integral Framework as in **Figure 2-5** facilitates the understanding of the interconnectedness of the dimensions. This framework can be used more effectively in analyses if it is structured in a table format. For the purpose of this study, the integral framework has thus been transposed into a table with each axis making up one section of the table.

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The tabular form of Rouse's Integral Framework is listed in **Table 2-1** below.

Table 2-1: Rouse's Integral Framework for Performance Measurement

Integral framework		
Planning axis		
Entity	Entity value	
Vision/Goal		
Objective		
Plan		
Performance norm		
Achievement axis		
Entity	Entity value	
Benefit		
Outcome and Strategic outcome		
Process		
Input required	Activity	Output produced
Evaluation axis		
Entity	Entity value	
Measurement		
Evaluation		
Organisational structure and culture		
Stakeholder expectation		
Resource axis		
Entity	Entity value	
Resource utilisation		
Resource capacity		
Contributions		

Rouse's Integral Framework as discussed above, assists with the macro-micro view of a process and how it should be viewed in the greater whole of the organisation. The table does not provide any detail on measurement and the evaluation of these processes' performance. The next section of this study provides an overview of a few pertinent performance management systems.

2.2.2 Performance management systems

The objective of this section is to give a brief overview of performance management systems and the attempts to encourage cross-functional collaboration. Performance management is considered important since there is a direct correlation between high performance work practices and organisational performance (Dobre 2012).

2.2.2.1 *Traditional measurement systems*

Organisations have used performance management systems for decades. In the manufacturing industry, blue collar workers have been measured for productivity for almost a century. In 1911 Taylor published his theory of Scientific management. This management approach specified for work to be standardised, in order to increase worker efficiency and to improve productivity (Ramírez & Nembhard 2004). Drucker claims that productivity of manual workers have ever since increased by 3% per annum compounded. This is an increase of fifty-fold since the publishing of Taylor's work (Drucker 1999).

However, during the last hundred years, many organisations have moved from manual production to automated productions. The focus fell increasingly on knowledge-driven output than on production-driven output, which has given rise to the term knowledge worker. Drucker first employed the term when referring to workers who work with intangible resources (Ramírez & Nembhard 2004). These workers normally have a formal higher education and apply theoretical and analytical knowledge in order to add value to a process. Seeing that the typical "blue-collar" worker reflected the position of workers on the opposite end of scale, knowledge workers are also referred to as "white-collar" workers. The industry experienced a distinct shift in the ratio of manual workers to knowledge workers. In 1920, there were twice as many manual workers as knowledge worker, i.e. a ratio of 2:1. In 1980, the inverse was true: two knowledge workers were employed for every manual worker. It is estimated that the midpoint was reached in 1959 –when the number of knowledge workers overtook the number of manual workers (Ramírez & Nembhard 2004).

As economies shifted from agricultural and industrial based industries to service and knowledge based industries, new opportunities and challenges emerged. The performance of the knowledge worker could not be measured by the same mechanisms as that of the manual worker. Takala lists seven characteristics of the knowledge workers which distinguish them from the manual workers within the context of performance management (Takala, Suwansaranyu & Phusav 2006). These characteristics are listed in **Table 2-2** below.

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Table 2-2: Characteristics of knowledge workers

	Characteristic of a knowledge worker
1	Knowledge work is usually non-repetitive.
2	Output of knowledge work is usually impacted by a number of external factors.
3	Output of knowledge work is usually difficult to quantify.
4	There are many approaches to knowledge work.
5	The effectiveness of the work depends mainly on the approach selected by knowledge workers. Knowledge workers usually require good problem solving skills.
6	The task of knowledge workers usually take longer than that of blue-collar workers.
7	Knowledge workers usually work in groups and require group recognition and participation.

Drucker states that productivity of knowledge workers is the biggest management challenge of the 21st century (Drucker 1999).

In the meantime, service and knowledge based organisations have grown and have taken on hierarchical structures. They have become silo-driven organisations that follow a command and control philosophy. This hierarchical structure originated in the manufacturing industry in the woollen mills and iron factories in Britain and has been refined in the United States' industry (Sy & Côté 2004). As command and control flows vertically through this structure so does information. In this hierarchical structure performance management systems are designed to transfer "good information" to senior managerial levels. These managers then make "good decisions" which flows down to operational levels. Senior managers in silo driven organisations need to know about the activities occurring within the silo and traditional performance management systems have been designed to fulfil this role (Meyer 1994; Liu et al. 2012).

Performance measures have been used throughout the organisation. On executive level it has been used to communicate strategy and on operational level to manage staff and productivity. It has become a critical element in the management of all levels. Deming's slogan "you cannot manage what you cannot measure" has become well-known in management circles (Takala, Suwansaranyu & Phusav 2006). However, the more senior knowledge workers become in the organisation, the harder it becomes to measure their performance by using quantifiable measures. Measuring performance of these types of workers using only numerical measures is likely to produce irrelevant measures or unwanted behaviour (Takala, Suwansaranyu & Phusav 2006).

Zigon states three obstacles in designing performance measurements for knowledge workers. First, knowing *what* to measure is not always clear. Crossing that hurdle, leads to the next hurdle, which is

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how to measure it. Lastly, knowledge workers rarely work alone (point 7 in **Table 2-2**). Working in a team means individuals need to be measured as well as the team as a collective whole. Measurements for individuals may differ from measurements for teams. This does not only add complexity on *what* and *how* to measure. It also increases the amount of data to gather in order to support these measurements (Zigon 1997).

Organisations are struggling to define these mechanisms for performance measurement and many models have been developed in an attempt to overcome this. Choong states that the growing number of performance management systems in the literature and in practice suggests that the traditional financially centred measuring systems are considered not sufficient for current organisations (Choong 2013). Organisations are faced increasingly with these growing complexities and these are combined with growing dynamic and complex commercial environments, which are associated with globalisation, and competitiveness (Tohidi 2011).

Many organisations turned to goal-setting as a management practice. These goals were aligned with organisational goals and meeting such goals would result in a reward for the individual (Otley 1999). Organisational goals are quantitative measures of business objectives and almost always refer to the creation of shareholder value (Fukushima & Peirce 2011). These are pure financial measures, easy to define and to measure. This and the fact the financial measures are readily available resulted in an exaggerated use of financial measures to measure individual as well as team performance. Financial measurement systems are far more advanced than measurement systems of non-financial measures. This is because managers find it a daunting task to create measurable non-financial measures and rather choose the more readily available financial ones. As an example of this phenomenon, Denton states that 76% of companies rated morale and corporate culture as being important concepts in organisations, but only 37% of these companies actually measured these concepts or reported on it (Denton 2005).

An unintended consequence of performance measurement conducted by hierarchical organisational structures is the aggregation of information. At the bottom of the hierarchy, workers are being measured. These measurements are summarised for managers and managers are being measured on the performance of their team, as well as on their individual performance areas. These in turn are summarised and again more measures are added. This lead to an overload of measurement and information, which resulted in information paralyses and ineffective functioning of performance management systems. Another phenomenon observed in hierarchical structures is that of the employee's loyalty to that structure. The measurement system used in large organisations has changed employee behaviour to such an extent that employees do not act as one organisation. They

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have a strict silo focus and commit their full loyalty to that organisational function, rather than to the organisation as a whole. In other words, employees lose sight of the organisational goal and focus only on the achievement of the goal of the function they reside in (Denton 2005; Sy & Côté 2004).

This point lies at the heart of this research study. Employees are over- focused on the achievement of their organisational function's goals. As a result their actions and the strategies executed to achieve this goal, negatively impacts on other organisational units or even on the organisation as a whole.

Organisations have come to realise this tendency and embarked on different approaches to overcome it. Three prominent approaches are the matrix organisation, the mobilisation of multi-disciplinary teams and the use of the balanced scorecard.

2.2.2.2 Matrix organisations

From the literature it is clear that no final agreement exists on the definition of matrix organisations (Appelbaum, Nadeau & Cyr 2008). Sy *et al.* refer to matrix organisations when an organisational structure is such that employees report to more than one manager (Sy & Côté 2004). Sy also describes the matrix organisation as:

“a grid-like organizational structure that allows a company to address multiple business dimensions using multiple command structures” (Sy & D'Annunzio 2005).

Organisations adopted the matrix structure for several reasons. Firstly, as organisations grew and their environments became more complex, their business goals increase. Smaller organisations can prioritise and focus their business goals, but larger organisations have to pursue multiple goals. A matrix structure enables organisations to target multiple goals with an equal focus. Secondly, the matrix facilitates the spreading of information. In the hierarchical structure information flowed vertically up and down the structure. In matrix structures, information flows vertically as well as horizontally. Thirdly, organisations achieve economies of scale through the sharing of resources within the matrix. Lastly, organisations are more agile in their response to demand. Functional groups can form and dissolve as demand varies (Sy & Côté 2004). No approach functions without its weaknesses. **Table 2-3** below shows some of the pertinent strengths of the matrix organisation, as well as some weaknesses (Sy & D'Annunzio 2005).

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Table 2-3: Strengths and weaknesses of matrix organisational structures

	Strengths	Weaknesses
1	Leverages functional economies of scale while remaining small and task-focused.	Violates the principle that authority should equal responsibility.
2	Focuses employees on multiple business goals.	Violates the principle that every subordinate should be assigned to a single manager.
3	Facilitates innovative solutions to complex, technical problems.	Can create ambiguity and conflict.
4	Improves employees' company-wide focus through increased responsibility and decision-making	Increases costs resulting from the need for additional management and administration.
5	Allows for quick and easy transfer of resources.	Increases likelihood of resistance to change as employees may attribute the matrix with loss of status, authority and control over the traditional domain.
6	Increases information flow through the creation of lateral communication channels.	
7	Enhances personal communication skills.	

In an investigation amongst almost 300 top and middle managers of matrix organisations, it was found that organisations experience five pertinent challenges when structuring into a matrix formation (Sy & D'Annunzio 2005):

- i. Misaligned goals
- ii. Unclear roles and responsibilities
- iii. Ambiguous authority
- iv. Lack of matrix guardian¹
- v. Silo-focused employees

One of the conclusions of the investigation was that measuring performance in a matrix organisation is equally challenging. Since the 1980's a decline have been observed in research on and literature of matrix organisations (Sy & D'Annunzio 2005).

2.2.2.3 Multi-disciplinary teams

The concept of multi-disciplinary teams features significantly in new product development. During the typical new product development life-cycle several different organisational departments are involved. Such departments include, at least, Research and Development (R&D), as well as

¹ A matrix guardian is an overseer of a matrix structure within an organisation. This person monitors the matrix performance and identifies best practises which can be propagated throughout the company. These matrix guardians are typically well respected and influential people within the organisational structure (Sy & D'Annunzio 2005).

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Marketing and Production. Each individual from each of these different departments presents his or her own understanding of the environment and of the different aspects of the product. Different interpretations are developed through the interaction between these individuals and the integration of their diverse skills and backgrounds (Kandemir, Calantone & Garcia 2006).

Multi-disciplinary teams are teams formed by including individuals from different departments and skills in one team that is responsible for new product development (Morton et al. 2004). Research has confirmed that collating heterogeneous perspectives and knowledge domains increases the ability to solve complex problems (Syson & Perks 2004). Kandemir states that probability of success of new product development grows with an increase in the use of multi-disciplinary teams (Kandemir, Calantone & Garcia 2006). However, changing organisational structures to support only the multi-disciplinary approach brings its own issues to the fore. Vertical barriers are then only replaced by horizontal ones (Morton et al. 2004).

For the context of the present study, employing multi-disciplinary teams permanently to dissolve the negative effects of countering strategies between divisions is not viable in the commercial environment. Several constraints causes this strategy not viable. Santam has a national footprint and forming multi-disciplinary teams would thus mean forming teams across geographical borders. Also, the commercial environment has a dynamic nature. Divisions constantly add new processes or change existing ones in order to improve their efficiency or performance. Forming multi-disciplinary teams for each of these initiatives will slow down the agility of such an initiative. However, the importance of involving individuals from all divisions of the organisation is emphasised through this concept.

2.2.2.4 The Balance scorecard

The balance scorecard is a mechanism well known in organisational fraternities. Over the years there have been different generations of balanced scorecards in use. The first scorecard was developed by Kaplan and Norton in 1992 (Kaplan & Norton 1992). The balanced scorecard assists executives to evaluate their business from different perspectives. An important benefit – if not the most important one – for organisations to use a balanced scorecard is to communicate strategy. Other notable benefits are to align activities, define clearer accountability and develop a link between short-term and long-term goals. In this way performance management, financial performance and competitiveness are improved through the use of the balanced scorecard (Othman 2006).

The balance scorecard has not informed the formulation of the evaluation framework, as discussed in Part 4 of the study. However, this concept has played an important role in Santam's performance management philosophy. The balance scorecard is briefly referred to in the discussion of the

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Commercial environment in Part 3. Therefore a brief background is warranted in this preceding section.

2.3 Discipline 3: Supplier perceived value

The concept of value is important to this research study of organisational structures. Organisations exist to create value for the client and for the shareholders. Supplier perceived value refers to the client's perception of the value that a supplier brings. It is important to have a basic understanding of the aspects that contribute to value creation. Furthermore, organisational units need to collaborate in support of the value chain in order to create such value. These organisational units thus all play an integral part in value creation and many of such units consume the output of others in the value creation process. Having a purely internal view, the organisational unit that consumes the output of another unit can be viewed as the 'customer' of that organisational unit. In turn, the unit producing the output can be viewed as the 'supplier'. Although this may not show the same trait as voluntary market exchange, understanding the customer-supplier relationship is important.

With respect to Santam, the characteristics of customer-supplier relationships will thus play an important role in gaining insight into the internal relationship between organisational units, as well as into the relationship between this company and the broker.

2.3.1 The view of value

From primeval times, humans have had the ability to recognise the value of objects. Irrespective of whether these objects were taken directly from nature or were transformed first to be useful, the value humans could derive out of objects drove them to be creative and innovative. Fernandes refers to six categories of value: (1) religious values, (2) behavioural values, (3) economic value – value as exchange, (4) use value – value as utility, (5) cultural value and (6) perception value – value as experience (Fernandes 2012). In the context of the present study, two of these categories are important to consider. These two are: economic value and perception value.

Economic value is also referred to as exchange value. This refers to voluntary market exchange which takes place between parties. Such exchange is only voluntary if both parties expect to be better off after the exchange (Eggert & Ulaga 2002). Thus, before the exchange, each party has a perceived idea of the value which is gained and lost, and of the net effect of the exchange. If the net effect of this exchange is perceived to be positive, the value of the party's beliefs is gained through the exchange and hence the exchange becomes voluntary. This value, as perceived by the parties is

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at the heart of the second value category considered in this thesis – perceived value. Thus value for the customer has been created when the perceptions of the benefit from the exchange for the customer outweighs the cost of ownership of not having done the exchange (Christopher 1996).

In the context of short-term insurance, these concepts can be translated into practice as follows: An insurer's prospective client owns an asset which has an explicit value to the client. This asset is exposed to risk and in the event of loss, this asset will have to be repaired or replaced. Thus, apart from the cost of maintaining this asset, the cost of ownership also includes providing for the risk of losing the asset. Generally clients are not able or unwilling to cover this risk in their own capacity. Consequently they are willing to pay a premium to another party in exchange for covering the risk of losing their asset. Provided the client is convinced that the insurer's product provides comprehensive cover, the value the insurer offers the client is *peace of mind*. Should an incident of loss occur, the client has peace of mind that the insurer will reinstate the client to the position he or she was in before the loss. If the client holds the perception of gaining value from the exchange, the premium paid to the insurer should thus be less than the "value" of peace of mind. This value of peace of mind is thus subjective and intangible.

On the other hand however, the insurer also perceives the exchange to be valuable. The insurer has a wealth of statistical information of the frequency and extend of incidents of loss and holds a large "pool of premiums" to cover these incidents. This pool of premiums is also invested through different channels to add value to the organisation in the form of return on capital. Should the frequency of incidents of loss increase, the insurer need to increase the premium and thus increases the value of the pool of premiums. When this happens, clients experience less value, since the cost of peace of mind has increased in this instance. If the client's has the perception that the value is too little compared to alternative options, the client will pursue an opportunity to exchange premium with another insurer (Fernandes 2012).

The question thus arises: what influences the client's perception of the value that a supplier offers and how can this perception be sustained or even increased? To answer this question it is important firstly to understand the perceived-value construct.

Perceived value has a positive and a negative component. The positive component is perceived quality of the relationship and the negative component entails cost and sacrifices (Moliner, Sánchez & Rodríguez 2007). The definition of relationship quality refers to the quality of the interaction between the customer and the supplier, as well as the supplier's ability to fulfil the needs of the customer associated with that relationship (Gummesson 1987; Hennig-Thurau & Klee 1997). The

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customer's perceived value of an exchange is influenced by that person's perception of the quality of relationship between him- or herself and the supplier. Thus, the value a customer perceives to gain from a transaction with a supplier is higher if the customer perceives that relationship with the said supplier to be healthy. This implies that the same transaction between this customer and a different supplier with whom the relationship is less healthy will result in the customer's perception of receiving less value (Moliner, Sánchez & Rodríguez 2007). It is thus vital for the supplier to maintain a quality relationship with the customer. Songailiene contests that there is a bidirectional interdependency between value and relationship quality. For a relationship to be perceived as durable and successful both parties have to gain value from the relationship and that the value nurtures the relationship (Songailiene, Winklhofer & McKechni 2001). This is depicted through the following systemic view in **Figure 2-6**. R_1 shows that this is a reinforcing loop, thus, an increase in perceived value leads to an increase in the perception of the positive quality of the relationship.

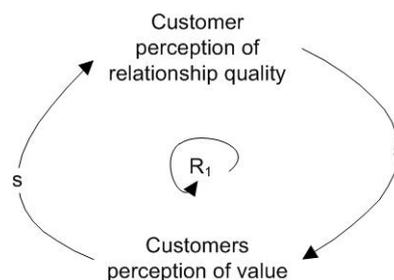


Figure 2-6: System view of perceived value

A supplier can measure a customer's perception of the relationship quality through three indicators: (1) the customers' satisfaction with the performance of the supplier, (2) the customers' commitment to the supplier, and (3) the customers' trust in the supplier (Moliner, Sánchez & Rodríguez 2007). Customer satisfaction entails the customer's experience of the fulfilment of a need or desire and whether that fulfilment is pleasurable. Customer commitment is obtained through the keeping of promises. If a supplier's promise is not fulfilled, the customer will not repeat the purchase. Moliner states that the essence of commitment between two parties is the willingness to make short-term sacrifices in order to obtain long-term benefits. Lastly, customer trust is the other key component a supplier needs to nurture in order to maintain a long-term relationship with a customer. Moliner accepts that trust has two key components: honesty and benevolence. The customer considers a supplier to be honest if the supplier makes a promise and has the ability to keep it. Benevolence is experienced if the supplier shows interest in the customer's well-being. There is a strong relationship between a customer's satisfaction with a supplier and that customer's trust in the supplier concerned.

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Relationships between customers and suppliers do not start off with a high quality. The quality is a trait that develops over time. Initially, during the infant stages of the relationship the perceived value of each exchange is of great value. Through continuous successful exchanges, traits are build, such as trust, satisfaction and commitment, which increases the quality of the relationship (Moliner, Sánchez & Rodrígu 2007). **Figure 2-7** below can be considered as an extension of **Figure 2-6** to explain how the quality of the relationship and the perception of value mature.

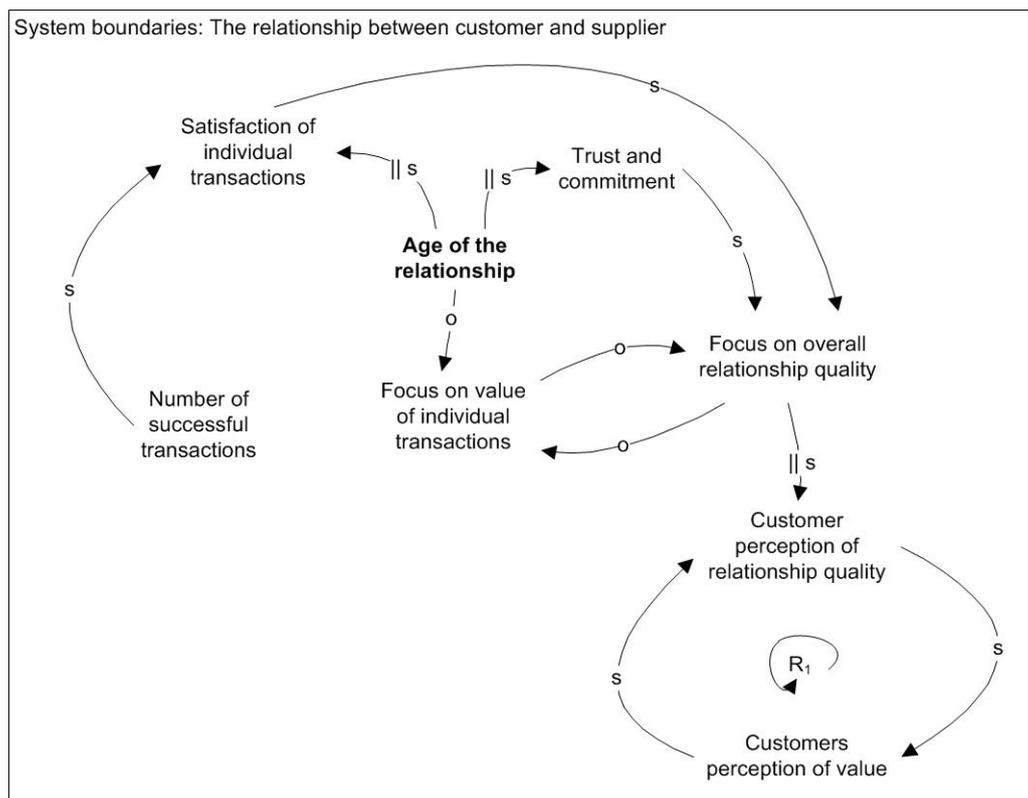


Figure 2-7: Systemic overview of the relationship between customer and supplier

The reading of the diagram should start at the *Age of the relationship* indicated on the diagram in bold. A new relationship (i.e. young age) leads to a high focus on the value of individual transactions due to the “opposite” relationship indicated by the “o” in the figure. A high focus on the value of individual transactions, leads to a lesser focus on the overall quality of the relationship. Thus in relatively new relationships between the customer and supplier, the customer does not rely as much on the quality of the relationship, but more on the value the customer gains from the current transaction. As the *Number of successful transactions* (on the right of the diagram) increases, so does the satisfaction of individual transactions – as indicated by the *same* relationship. Over time, as the *Age of the relationship* increases this satisfaction, trust and commitment increase as well. This has a delayed effect as indicated by the double bar (||). With an increase in the traits of satisfaction, trust and commitment, the focus increase on overall relationship quality and the focus decrease on

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the value of the individual transactions. This causes a shift in focus towards the customer's perception of relationship quality and thereby an increase in the customer's perception of value. This places the customer in reinforcement loop R_1 in which value and quality of relationship reinforces each other. This diagram does not show any event which will take the customer out of reinforcement loop R_1 .

2.4 Conclusion

Part 2 of this research study focused on the disciplines used in the development of the evaluation framework. Three disciplines have been considered and discussed above.

In the following part, Part 3, the Commercial environment will be discussed. In order to develop the evaluation framework in Part 4, it is firstly important to understand the systemic factors operating within the Commercial environment.

Part 3: The Commercial environment

3.1 Discussion of the commercial landscape

As stated in the research methodology, an understanding of the commercial environment is of paramount importance in the development and use of the evaluation framework. In the following few paragraphs an overview of the commercial landscape is discussed.

3.1.1 Background on the short term insurer

Santam (Pty) Ltd. is a publicly listed company and its majority shareholder is a life insurer. Santam has an international footprint and covers customers' personal, commercial and specialised risks. Many of these specialised risks are covered through subsidiaries that are fully or partially owned by Santam. Although a small percentage of the products are distributed through a direct channel, the majority of the business is channelled through an intermediated business model. Santam – as is the case with many large corporates – has different functional divisions catering for the different life-stages of a product. **Table 3-1** below lists the high level responsibilities of each of these functional divisions in the context of the value chain. The table shows a matrix of the responsibilities in relation to the industry value chain. Later in this section each of the functional divisions will be discussed in more detail. The detail of the Insurance industry value chain is expounded in Appendix A.

Table 3-1: Functional division responsibilities for each part of the value chain

Functional division	Market research and product development	Risk management	Acquisition	Administration	Claims
Risk services	<ul style="list-style-type: none"> - Customer-needs analysis - Product definition 	<ul style="list-style-type: none"> - Rating rules and conditions - Managing of discount and authorisation mandates - Analysing risk profiles 	<ul style="list-style-type: none"> - Authorising out-of mandate proposals and policies - Surveying of risks 	<ul style="list-style-type: none"> - Authorise out-of mandate proposals and policies - Surveying of risks - Screening of policies 	<ul style="list-style-type: none"> - Identify multi-claimants
Broker distribution	<ul style="list-style-type: none"> - Feedback on customer needs 		<ul style="list-style-type: none"> - Present a proposal - Increase Intermediary network 	<ul style="list-style-type: none"> - Enhance retention through advice during renewal cycle 	<ul style="list-style-type: none"> - Approve <i>ex gratia</i> claims - Manage relationship during complex claim situations
Operations			<ul style="list-style-type: none"> - Compile and present a proposal - Conclude the sale 	<ul style="list-style-type: none"> - Execute all policy administration requests -Credit control 	<ul style="list-style-type: none"> - Execute all claim requests - Confirm risk cover

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3.1.2 Santam's primary functional divisions

Below follows a short description of three primary functional divisions within Santam. In the context of this research study it is important to understand the main responsibilities of each of these divisions, their strategic objectives and measurement from a performance perspective. The present study focuses on how divisions unintentionally can hamper processes within the organisation in the drive to meet their own strategic objectives. It is therefore imperative to understand these strategic objectives and performance measures.

3.1.2.1 Risk Services

The functional division, Risk Services, holds responsibilities almost throughout the entire life-cycle of the insurance product. This division is responsible from the point where customers' needs are analysed and defined, to the definition of the product in terms of underwriting rules, product wording and formulation of clauses. Risk Services also defines the discount and authorisation mandates used by the rest of Santam during the acquisition and administration processes. These mandates allow the divisions concerned to deal with certain risk types, underwrite these risk types up to a certain insured amount and give discount up to a certain percentage. The practical application of this mandate is explained by means of an example in Appendix B. This division naturally carries the highest level of discount and authorisation. Consequently all special underwriting cases and extreme discount requests have to be channelled through Risk Services.

Risk Services' strategic objective is to drive the quality of the risk pool. Primarily, on an executive level, Risk Services is measured in terms of the profit the Santam Group makes. Other contributions to the performance measurement are increase in premium growth, return to shareholders in excess of cost of capital, as well as market performance (based on share price relative to the JSE's financial index).

3.1.2.2 Broker Distribution

Broker Distribution is responsible for managing the intermediary channel. In this context *channel* refers to the fraternity of traditional brokers, the digital channel and the outsourced business channel. The research covered in the present study focuses on the traditional broker. The division within Broker Distribution with the task of managing the traditional broker channel is referred to as Broker Services. Broker Services is thus responsible for setting up new distribution agreements with intermediaries, maintaining the relationship between Santam and the existing intermediaries, as well as facilitating the acquisition of large business (i.e. single account but high value, or a portfolio of policies with a combined high value). The primary role within Broker Services is held by the

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Relationship Manager. The role of the Relationship Manager and functions of the Broker Services division will be examined extensively in this research study.

Broker Distribution's strategic objective is to drive growth through the existing channel as well as new channels. The measurements of Broker Distribution's performance comprise of the Santam Group and Santam Company financial results. The measurements taken in the context of the results for the Santam Group are the same as those of Risk Services, but are weighted differently. The measurements in the context of the results for Santam Company include growth and profit, with the largest weight of profit.

3.1.2.3 Operations

The Operations division focuses on concluding and maintaining the agreement between Santam and the policyholder. Request for quotes from prospective clients are submitted to this division. Proposals, containing prices and conditions of risk cover, is prepared and presented to prospects. In the compilation of these proposals other divisions may be involved.

- Risk Services may be involved for handling and authorising requests that exceed Operations' mandate.
- Broker Distribution may be involved for providing insight into the specific intermediary requesting the quote or during high value acquisition opportunities.

All requests by policyholders for changes to policies— directly or through their broker – are executed by the Operations division. Lastly, this division is also responsible for handling claims against policies.

Operations' strategic objective is to drive operational efficiency through the managing of processes and implementation of technology. The executive performance measurement also focusses on Santam Group results with the highest weight placed on the profit measure. At the time of the present research, no measures were defined on executive level that reflected operational efficiency. Minimal operational measures exist and are combined with several other measures to evaluate non-managerial staff.

3.1.3 Santam's performance management approaches

3.1.3.1 The de facto approach

Santam is a profit-centric organisation and on some level, all employees are measured against the accomplishment of profit and growth. With reference to the performance management systems as discussed in paragraph 2.2.2 above, Santam follows a very traditional philosophy to performance

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management. Each functional division – as discussed above – employs performance measurements of which most are aligned with the function of the division. Naturally these measurements have either a financial or an operational basis. Key Performance Areas and Key Performance Indicators are defined for each of the employees reporting from within a division. Biannual performance appraisals are held between the employee and his/her superior. The employee's overall score influences management decisions on rewards. These can be in the form of remuneration, performance bonus, and share-incentive schemes. The score places an employee in one of five levels of performance.

Table 3-2: Santam's general performance level definition

	Performance level	Guidelines	Performance range
1	Outstanding performance	Performance measured against the requirements of the role is exceptional. Widely recognised within and outside the immediate team for exceptional engagement and contribution beyond the job description.	125%-130%
2	Exceeds performance expectations	Exceeds the required performance of most of the role requirements. Identifying and engaging in activities not necessarily specified in job description to enhance contribution.	111%-124%
3	Performance is at an acceptable standard	Meets most requirements = rating < 100 Meets all requirements = rating = 100 Exceeds some of the requirements = rating > 100	90% - 110%
4	Performance meets some expectations, improvement required	Fulfills the critical performance requirements of the role, but does not meet all expectations. Performance needs to be closely monitored to close the performance gap.	76%-89%
5	Significant performance concerns	Significant shortfall in performance and considerable room for improvement. Question retention in role and performance improvement plan must be agreed and initiated immediately.	0%-75%

From a financial perspective, it makes a vast difference whether the employee resorts under level 1 or 2. Achieving level 1 overall is extremely rare, but achieving level 2 is within reach for most employees. These employees diligently agree to clearly defined and measurable targets, in order to ease the performance appraisal and assure the indisputable measurement of results. Very importantly, employees with a high awareness of the performance system, push hard to be measured only on aspects over which they have direct control. These employees are focused on the measurements throughout the year and invest a lot of effort in achieving these results.

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3.1.3.2 *Matrix reporting structures*

Matrix reporting structures are used within Santam on an ad-hoc basis. The most common occurrence of this is when production resources are used on projects in the role of a subject matter experts. These resources have a reporting line to their organisational manager, but in the context of the project these resources also have a reporting line to the project or programme manager.

3.1.3.3 *Multi-disciplinary teams*

The establishment of multi-disciplinary teams within Santam is a rare and uncommon occurrence. Multi-disciplinary teams are formed to execute a specific assignment. An example of such assignments is to transfer a specific targeted portfolio of policies to Santam. These multi-disciplinary teams are typically made up of Relationship Managers, Key Account Managers, Underwriters, Surveyors, and sometimes include IT resources.

3.1.3.4 *Balanced scorecard*

For several years Santam's executive team and the senior management team have used the balanced-scorecard approach. Typical to the balanced scorecard, strategic objects drive the definition of initiatives as well as the definition of the appropriate measurements. The frequency of these measurements varies from monthly to annually. The balanced scorecard is reviewed on quarterly cycles and the review is attended by the executive and senior management teams. The balance scorecard is not expected to drive synergy on business process level. Therefore the presence of the scorecard has not resolved – or even highlighted – the impact divisions have on one another. In addition, the gap between the hampering of business processes and measurements on the scorecard is significantly large and is not visible to management. Since 2011, Santam has moved away from using the balanced scorecard.

3.1.4 *Background on intermediaries*

In the financial services domain, the term *intermediary* is an umbrella term representing all parties acting between the financial service provider and the consumer. In short term insurance there is predominantly two types of intermediaries: brokers and administrators.

A broker is a person or organisation that is selected by the consumer and is responsible for advising the consumer on financial products. The broker forms part of the delivery channel between the client and insurer and is instrumental in establishing the policy contract between these two parties. The broker, however, is not directly responsible for the execution of any transactions on this policy. Thus, all the administration of the policy is done by the insurer. Brokers earn commission from the

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insurer on policy premiums that the client pay by and the rate of commission is regulated by Government. Optionally brokers can charge a policy fee which is payable by the client.

Administrators are organisations that serve brokers by providing policy administration services on behalf of the insurer. Administrators are paid by the insurer for executing administration functions and this is typically calculated as a percentage of policy premiums. Different factors may motivate brokers to have their policy administration done by an administrator rather than directly through the insurer. The most prominent motivation is service delivery. Brokers perceive that the service provided by administrators generally is better than the insurer's level of service. This may be the case, since large and established insurers typically have old technology systems and oversized call centres. Administrators usually entail much younger companies and run on much more recent and agile technologies. Their call centres are smaller and thus offer a much more personal service. Also, administrators often are geographically close to the brokers they serve, which is beneficial to the relationship. In contrast, call centres from insurers are typically centralised and this challenges the establishment of a personal relationship between the broker and the agent who is administering the policy. Apart from service, other factors may motivate brokers to make use of administrators. Larger brokers or brokers who service clients with a predominantly high net-worth, may choose to white-label² the policy contract offered to the client. This service is usually offered by administrators and not by insurers.

There are a vast number of different types of intermediaries and the range of products they broker. On the one end of the scale intermediaries are corporations focusing on multiple financial products, from banking, to life-and short term insurance. These intermediaries typically also have a national (and even international) footprint and many of them also cover personal, commercial and specialised business within the short-term insurance division of the company. These intermediaries usually deal with multiple insurers, in order to offer a tailor-made product to their clients. This product often entails an amalgamation of products from different insurers. It is also structured in a specific way to suit their typical client profile and risk cover needs the best.

On the other end of the scale are brokers with a much smaller portfolio of policies. These brokers very often have a single digit staff count and are on the limits of their infrastructure constraints. For them, growing would mean expanding their office space, upgrading their technology, establishing a Human Resource department. (Often to broker's minds, these are people who are not selling policies, which implies that they add to the management expense of the brokerage, but do not

² A white-label product is a product that are produced by a manufacturing company, but rebranded by a marketing company as their own.

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directly contribute to the revenue.) Typically this type of brokers are content with the income generated through the portfolio of policies and only aim to maintain that revenue stream.

Naturally, between these extreme ends of the scale are a myriad of different types and styles of brokers.

3.2 Discussion of the commercial problem

3.2.1 Overview of the problem

Providing insurance is a complex and multifunctional process. Converting an opportunity into a policy, or even maintaining an existing policy, requires cross-functional input and depends on effective coordination across specialised functional divisions. No single functional division can autonomously provide an insurance product without depending on the specialised expertise of one or more of the other divisions.

This specialised form of expertise needs to be performance managed against an expected target and each functional division understandably focuses heavily on what the division is being measured on. It is further known that financial measures are readily available and provide an easy mechanism to measure performance. (Denton 2005; Neely, Adams & Crowe 2001; Otley 1999). Thus each functional division's performance is expressed mainly through financial measures weighted in such a way to provide emphasis on what that divisions' focus should be. For example, Risk Services is mainly responsible for maintaining a healthy risk pool. This focus is reflected more through the profitability measure than through growth. Rightfully, it would thus be safer for Risk Services not to accept a "bad" risk into the risk pool in order to preserve the quality of the risk pool.

In contrast, the Broker Distribution division focuses on growth and are measured accordingly. Although Broker Distribution is also incentivised through the profitability measure to seek "good risk" opportunities for Santam, their main focus remain growth and their view is sometimes to take the "bad" with the "good" for the sake of growth. This is shown by the accidental adversaries' system archetype between Risk Services and Broker Distribution depicted in **Figure 3-1** below. (For a description of the general Accidental Adversaries Systems Archetype, refer to Appendix C.)

Firstly the outer flow of the diagram should be considered. This outer flow displays Growth as the goal for Broker Distribution, and that for Risk Services to be a Healthy Risk Pool. Both of these divisions have other goals, which may imply that these are not even the divisions' primary goal. However, for the sake of this example these goals will be considered. More growth results in Broker

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Distribution to be less desperate for growth. This leads them to be more particular about the risks they bring to Santam – which provides a Healthier Risk Pool.

A healthier risk pool is one of the goals of the Risk Services division. Seeing that Broker Distribution meets one of their primary goals through acquiring healthy risks, it helps Risk Services to meet one of their primary goals. Likewise, with a Healthier Risk Pool, Risk Services can tolerate higher discount mandates. Because of cheaper prices the brokers’ relationship with Santam improves and the propensity increases of placing business with Santam. This leads to more growth, which is one of the goals of Broker Distribution. Thus as Risk Services achieves their goal, it enforces the achievement of Broker Distributions’ goal as well. This can be pointed out as a reinforcing loop indicated by an R in the figure.

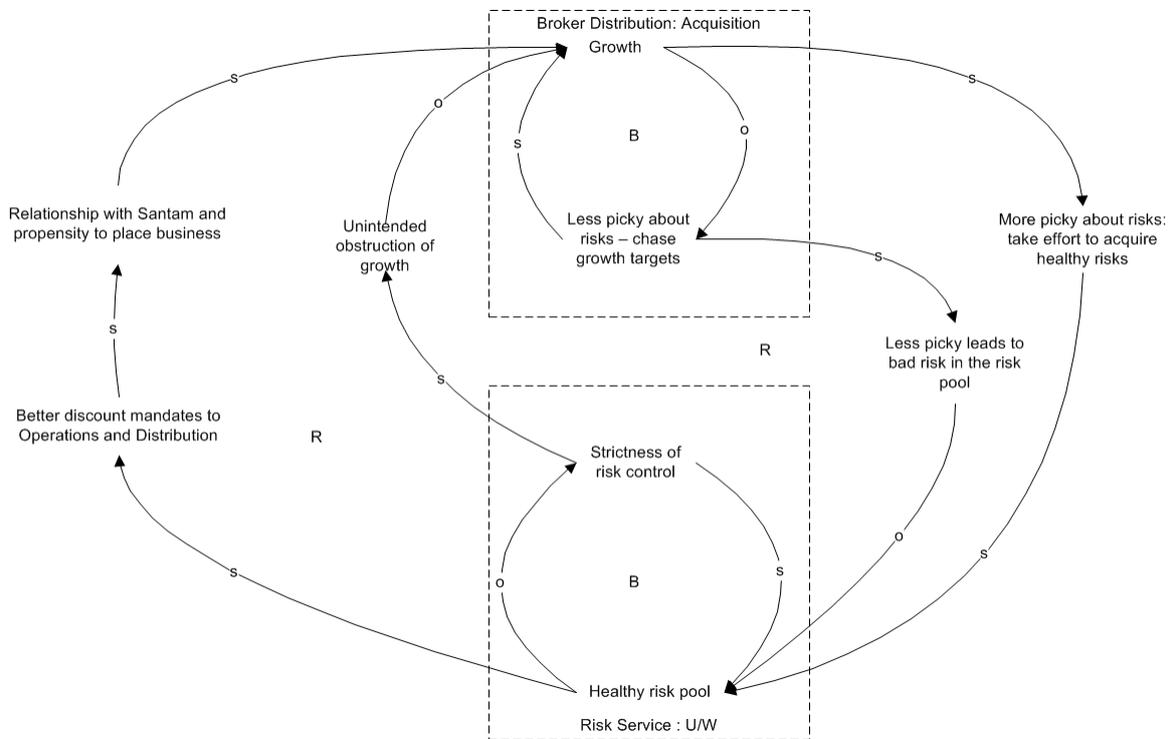


Figure 3-1: Accidental adversaries – Risk Services and Broker Distribution

These two parties, however, unintentionally and accidentally may become adversaries. In a case where growth is impaired – say due to strenuous economic times, or another insurer are gaining large sections of Santam’s business through undercutting, et cetera. Lower growth triggers Broker Distribution to execute a strategy to compensate for lower growth rates. This strategy is depicted by the smaller loop within the Broker Distribution block. Such a strategy may include pursuing growth by being less picky about which risks to take on. More not-as-good risks in the risk pool leads to a less healthy risk pool. Thus, the strategy executed by the division Broker Distribution to achieve their target has obstructed Risk Services in achieving their target in turn. A decline in the health of the risk

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pool will naturally trigger a strategy within Risk Services to compensate for the health of the risk pool being lower than expected. This is depicted by the smaller loop within the Risk Services block.

These strategies typically include the implementation of stricter risk control on current risks in the risk pool, as well as on risks entering the risk pool. Control mechanisms for existing risks may include screening of policies, which may lead to premium increases or cancellation of cover. For new risks, lower discount mandates are offered, or more comprehensive questionnaires about the risk may need to be completed before the risk is considered. These control mechanisms lead to an unintended obstruction of growth, which may impede the division Broker Distribution's main goal. Naturally, Broker Distribution will respond by pursuing more growth. Thus these functional divisions unintentionally become adversaries. This again is done through a reinforcing loop, but in this instance the loop has a negative effect.

The negative reinforcing loop as described above may not necessarily be triggered by impaired growth. It may very well be that the rate of growth is on par with previous years and even with the industry, but that the growth target as such is far beyond reach. Thus even a reasonable growth rate will not achieve an unreasonable growth target. However, if this target is enforced onto the division it may also trigger strategies to compensate for the shortfall of growth. Thereby these strategies may result in an obstruction of Risk Services' goal, which naturally will trigger the emergence of the accidental adversaries system.

The overview of the problem above highlights only one objective for each of the divisions. It demonstrates in a typical cause-and-effect style how these divisions unintentionally obstruct the others' attempts to reach their targets. In practice, the environment is a lot more complex and non-linear and many factors impact on each division's goals. Many of these factors are outside of the division's control – or even outside of Santam's control. For example, global warming (Stubbs & Lockwood 2007), which falls outside of Santam's direct control, affects the risks currently in Santam's risk pool. A risk that may have been a "good" risk some years earlier when it was first covered, may currently be considered a "bad" risk due to the effects global warming has on the environment.

The following section follows a more generalised approach in defining the problem.

3.2.2 Definition of the problem

The detailed description of the problem will be given by applying Rouse's Integral Framework for Performance Measurement (Rouse & Putterill 2003).

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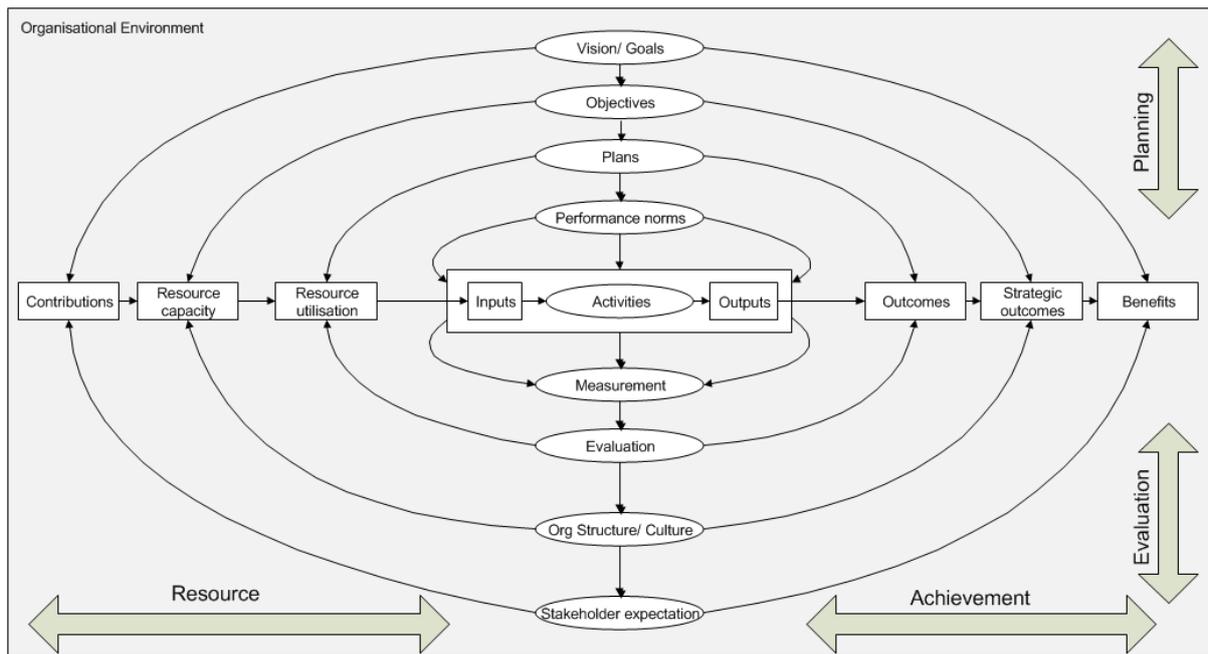


Figure 3-2: Overview of Rouse's Integral Framework for Performance Measurement

Each organisational function has several objectives to achieve – some objectives are formally contracted and some are implied by the purpose of the function. For each organisational function, and for each objective – irrespective of whether it is formally contracted or not – at least one integral framework can be developed. Within an organisational function, many activities are performed, which leads to the achievement of any of the goals. This was also clearly shown in the Overview of the problem in which any of the divisions defined at least two activities to achieve the goal. Thus, for the purpose of a detailed explanation of the problem, these multiple activities will be drawn on the same integral framework diagram.

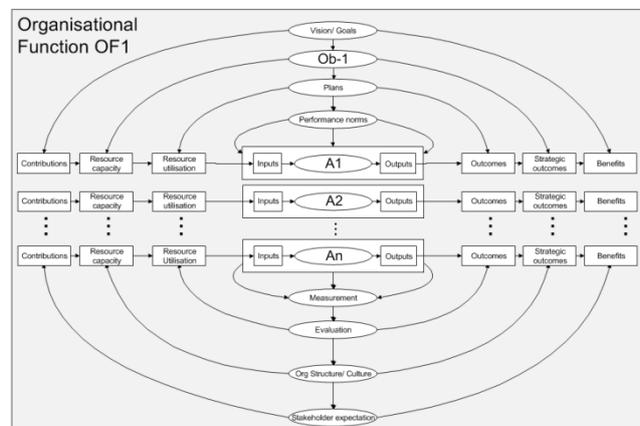


Figure 3-3: IFPM for OF1

One may postulate an organisation function OF1, which is part of an organisation performing more than one organisational function. An integral framework for the organisational function is drawn up and depicted in **Figure 3-3**. This figure shows the multiple activities existing in the function in order to achieve a single objective. One may call this objective OF1-Ob1 and the

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activities to achieve this objective can be appointed as A1, A2, ... An. Each of these activities depends on inputs, utilisation of resource and capacity of the resources, in order to produce an output.

On the achievement dimension of the framework, each of the activities leads to an output, which in turn produces an outcome. Strategic outcomes are a subset of all outcomes and these strategic outcomes help to achieve the objective: OF1-Ob1. It is important to realise that **Figure 3-3** above only presents one of the organisational functions' objectives and also that such a framework exists for every objective of that function.

Typically, large organisations comprise a multitude of organisational functions. Therefore an integral framework should be developed for each function and, in turn, for each objective of that function. Each of these objectives are achieved through many possible activities. **Figure 3-4** below depicts integral frameworks for two such organisational functions. These functions can be termed OF1 and OF2. As shown above, these frameworks depicts a specific objective, in this case OF1-Ob1 and OF2-Ob1. Furthermore, each framework depicts activities A1 to An as defined by the OF1 and OF2, in order to achieve the objectives OF1-Ob1 and OF2-Ob1.

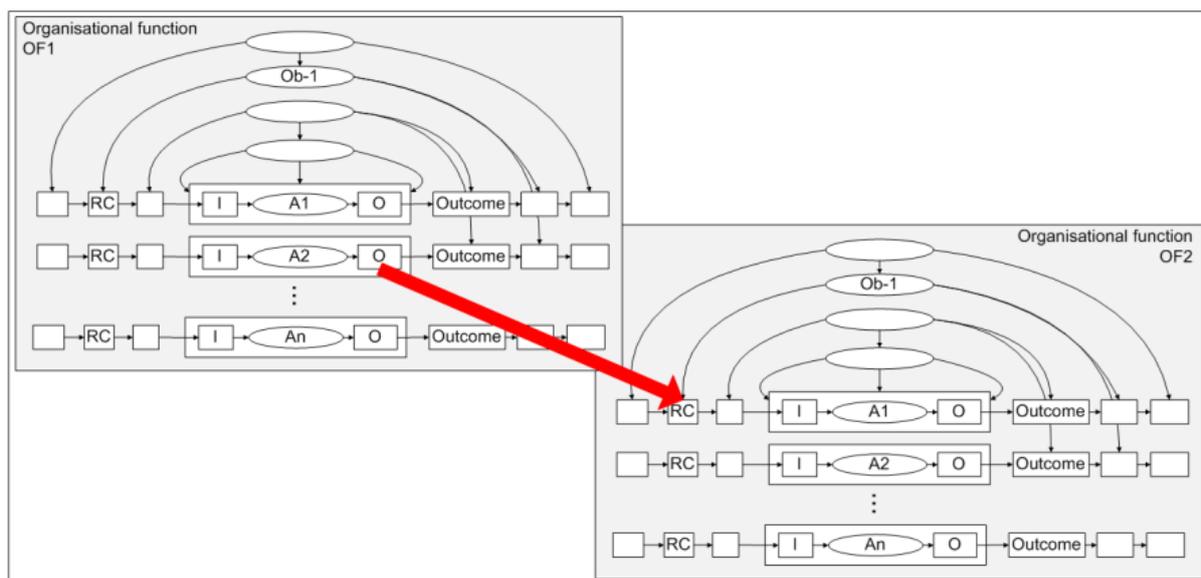


Figure 3-4: IFPM for OF1 and OF2

Within each organisational function, i.e. within an integral framework, each of these activities produces an output which produces an outcome. This may lead to an strategic outcome, which results in the achievement of the objective.

The problem emerges where the output of an activity leads to a strategic outcome contributing to the local function's objective, but hampers the objective of another organisational function. The hampering is caused by an impact on any of the dimensions in the resource section of the framework.

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In **Figure 3-4**, the output of activity A2 impacts the Resource Capacity (i.e. in the broadest sense encompassing people, process and technology) needed for activity A1 in the OF2 organisational function. If any of the activity's resources and inputs are impeded, the activity underperforms. This condition becomes visible through the measurement dimensions (omitted from the diagram – refer to Discipline 2: Performance evaluation). Depending on the severity of the impact, such an impact may restrict the organisation function OF2 in achieving their Objective OF2-Ob1. The framework allows for the measurement of the resource dimensions. However if these measurements lack, it will not be discernable that the poor performance of Organisational function OF2 is possibly not due to an incapable activity A1, or insufficient input, but owing to the constraint of resources.

3.2.3 Manifestation of the problem

Below a practical example is provided to demonstrate where the problem manifest within the commercial landscape. This case and other cases will be considered further in the case studies discussed in Part 5: Validating the evaluation framework.

3.2.3.1 *Acquiring portfolios of policies through one broker*

Risk Services

Risk Services has the goal of maintaining a healthy risk pool. One of the strategies to maintain such a healthy risk pool is by applying scientific risk modelling to tariff calculation. The mechanism used to produce tariffs is termed the Scientific Pricing Model. The essence of these models is to consider several factors of the risk, including its environment, to determine a tariff that would cover the risk concerned. This implies that the same risk in different environments may be covered at different tariffs. As an example, the risk can be considered of theft associated with a liquor store located in a shopping mall versus a store located in the main road close to a taxi rank. The liquor store in the main road has a much higher risk profile for theft than the one in the shopping mall and thus will be covered at a higher tariff. When describing this case through the integral framework, a healthy risk pool would be an objective. A plan would be to increase the accuracy of the risk assessment. A performance norm could be the expected profit to emerge from a risk pool when using the scientific pricing model. The activity would then be to develop and maintain a scientific pricing model to be used by other organisational functions during acquisition. The output would thus be the pricing model.

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Broker Distribution

Broker Distribution has growth as one of its goals. One strategy this division applies to enhance this goal considerably is by acquiring portfolios of policies – i.e. agreeing with a broker to move a substantial amount of policies from a competitor insurer over to Santam. As with any acquisition, the portfolio of policies needs to be quoted on, and this acquisition process involves the use of Risk Services' scientific pricing model. These portfolios of policies often contain a subset of risks considered to be "good" risks, as well as a subset of risks deemed "not so good". It stands to reason that if the subset containing bad risks outweighs the one containing good risks, the acquisition will appear less appealing. However, within reason, the brokers expect to move over the bad risks with the good.

Describing this process through an integral framework, would posit growth as an objective. The plan is to acquire portfolios of policies in a single step. The performance norm would be the growth in premium, as well as the profitability of the portfolio. The activity would then be to quote on portfolios of policies. The inputs to this activity will be the scientific pricing model, all the proposed risks in the portfolio and the current profitability of the portfolio. The output would be individual tariffs for each of the risks as produced by the scientific pricing model.

The problem

Applying the scientific pricing model to the portfolio of policies would result in excessively high tariffs proposed for the subset of bad risks. Often Santam is out-priced when these tariffs are compared to the market value, i.e. the tariffs fixed by other insurers who are not following a scientific pricing approach. These excessively high tariffs makes it difficult for the brokers to sell to their clients and hampers or even obstruct the acquisition of the portfolio, which hampers or obstructs Broker Distribution's goal of growth.

The activity that Risk Services followed to produce a scientific pricing model, and the model produced as output, thus impedes Broker Distribution's activity – acquiring portfolios of policies. Since the acquisition activity was ineffective in acquiring the portfolio, it may reflect negatively on Broker Distribution's ability to meet their objective of growth effectively. In the meantime, however, one of the inputs on which their activity depends, in effect impeded their activity.

If Risk Services measures the effectiveness of their scientific pricing model, the measurement will be within the context of their objective, which is to create and maintain a healthy risk pool. However, this measurement does not prove that the scientific model is fit for that purpose when used in the context of the portfolio acquisition process.

Part 3: The Commercial environment

It creates a dilemma when Risk Services measure the scientific model only within their local organisational context, i.e. only within the context of maintaining a healthy risk pool. This causes Broker Distribution not to see the need to measure the scientific model as an input to their process of portfolio acquisition. Without measuring the scientific model as input in the context of Broker Distribution's objective, is implying that this input is either unable to influence the output of the process or that it is a quality input to the process.

In this scenario the perceived outcome on organisational level is a successful scientific pricing model and an ineffective portfolio acquisition process.

As shown in the Overview of the problem, growth targets may now be under threat, which triggers Broker Distribution to execute a compensating strategy of pursuing growth targets.

3.3 Conclusion

This section of the present study was aimed at examining the operations and functions of the commercial environment. This was done to facilitate understanding of the systemic environment, as well as the systemic factors influencing the performance of business processes.

In the next part, Part 4, the evaluation framework is developed through the use of the disciplines as discussed in Part 2.

Part 4: Developing the evaluation framework

The objective of this part of the study is to achieve the research objectives through development of the evaluation framework. According to Rouse, all activities in an organisation fit into an integral framework whether it explicitly has been designed that way or not (Rouse & Putterill 2003). Each activity inherently produces an output, which leads to an outcome; when outcomes accomplish an objective, certain benefits are realised for stakeholders. If an organisation thus embarks on defining new processes, it should be fitted by design into the integral framework to ensure the correct definition of the following aspects: measurements, evaluation, required resource capacity, benefits to be realised, and so forth.

Thus, when defining processes of the evaluation framework, these processes should also be fitted to the integral framework. In paragraph 4.1 below, Rouse's Integral framework for Performance Measurement is developed for the framework proposed in the present study. In this paragraph each of the axes are discussed and developed separately. The combined view of all the axes is listed in Appendix D.

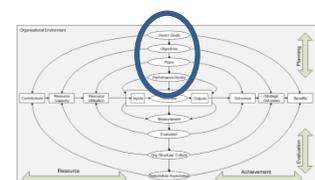
It is important to take note of the order in which the axes are developed. The Planning axis is discussed first since it states the vision and objective. Before anything else can be defined it is imperative to have a clear objective and plan to achieve that objective. Then the Achievement axis is discussed. This axis focuses on the benefit and the outcomes which will lead to achieving the benefit. At this point, the question arises: Which process outputs will lead to these outcomes? This is dealt with in the discussion on the Process block. The Process block defines the processes that results in output, and – if defined correctly – these outputs will lead to outcomes and eventually to benefits. With the processes known, their evaluation is developed in the Evaluation axis discussion. Lastly, on the Resource axis, the resources required to execute the processes are defined.

4.1 Develop an integral framework for the processes within the evaluation framework

4.1.1 The Planning axis

Firstly, The Planning axis will be considered. This axis defines the vision, the objective to be achieved; the plan on how to achieve the objective and lastly, the performance norms against which to evaluate achievement.

Table 4-1 below shows the four entities from the Planning axis and for each



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of the entities the entity value is shown.

Table 4-1: Integral framework for Performance Evaluation Processes – Planning axis

Integral framework to identify conflicting strategies and hampering processes	
Planning axis	
Entity	Entity value
Vision/Goal	All organisational units collaborate in a constructive manner in order to maximise shareholder value.
Objective	None of the strategies executed in any organisational unit will impact negatively on any other organisational unit without the strategy being properly assessed and evaluated.
Plan	Evaluate contributions, inputs, outputs and outcomes of own activities and activities of other organisational units, in order to identify conflicting and hampering activities, which has a negative effect on stakeholder benefits.
Performance norm	Qualitative feedback between organisational units.

The vision is that organisational units do not severely hamper one another by achieving their own targets. Rather organisational units work together collectively as a collaborative whole to maximise shareholder value. Given this vision and goal, each organisational unit must thus hold the objective to evaluate their processes and strategies for hampering tendencies. The objective is not to eradicate all conflicting strategies completely, but rather to evaluate the organisation-wide effect of such a strategy or process in order to:

- i. Know which other processes and strategies in the organisation are impacted.
- ii. Know what the overall effect is on benefits and hence on stakeholders.

To achieve this objective, a plan must be defined. Organisational units need a mechanism that enables them to evaluate their own processes and strategies, as well as those of other units. In that ways they will evaluate the net effect on stakeholder benefit.

The performance of this mechanism will be determined by its ability to identify such conflicting strategies and the hampering of processes and to place the organisational units in a position to evaluate the net benefit to stakeholders in a holistic manner. This cognisance of possible areas of conflict or of hampering, may inform organisational units to change the defaulting process in order to create more value.

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4.1.2 The Achievement axis

Secondly, the Achievement axis is examined. This axis lists the benefits to stakeholders, the strategic outcomes, and the outcomes from a process.

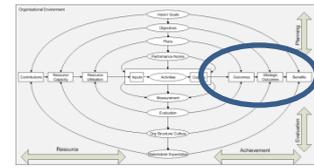


Table 4-2 below shows the three entities and entity values.

Table 4-2: Integral framework for performance evaluation processes – Achievement axis

Integral framework for performance evaluation processes	
Achievement axis	
Entity	Entity value
Benefit	Maximise shareholder value.
Outcome and Strategic outcome	The net effect of contradicting strategies still has a positive value on the benefits for the shareholders.

For different stakeholders as defined on the evaluation axis, different benefits can be recorded. In this integral framework the focus falls on the organisation as a whole; thus the benefit for the organisation entails maximum increase in shareholder value. This is aligned with the overall vision.

4.1.3 The process block

The process block represents the processes which will be employed during the evaluation of performance. These processes lead to outcomes which will result in benefits for the stakeholders. Table 4-3 shows the three proposed processes, the inputs these processes require, as well as the expected outputs to be delivered. In analysing the table, first the activity should be read, then the inputs required and lastly the anticipated outputs.



Table 4-3: Integral framework for performance evaluation processes - Process block

Integral framework for performance evaluation processes			
Process			
#	Input required	Activity	Output produced
1	Process under investigation Domain knowledge	Evaluate hampering outcomes	Outcomes considered possibilities that hamper business processes Business processes indicated as being hampered No evidence of hampering
2	Process under investigation Domain knowledge	Identify hampered contributions, resources or inputs	Contribution, resources or inputs that possibly may hamper the business process under investigation
3	The desired future state Domain knowledge	Discover hampering processes	List of processes hampering collaboration and achievement of common objectives

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Three processes are defined in the process block that constitute the evaluation framework and which are briefly discussed below in paragraphs 4.1.3.1, 4.1.3.2 and 4.1.3.3. In the next three paragraphs these processes are expounded in more detail. After the discussion in this paragraph of the Integral Framework, these processes are expounded in more detail in paragraphs 4.2, 4.3 and 4.4.

4.1.3.1 Process 1: Evaluate hampering outcomes

The first process as listed in **Table 4-3** is focused on evaluating whether an outcome of the process under investigation could possibly hamper any other business processes in the organisation and why this hampering occurs.

Figure 4-1 below, as discussed in paragraph 3.2 *Discussion of the commercial problem*, depicts this scenario. Activity A2 as executed in organisational function OF1 produces an output which hampers activity A1 executed in organisational function OF2.

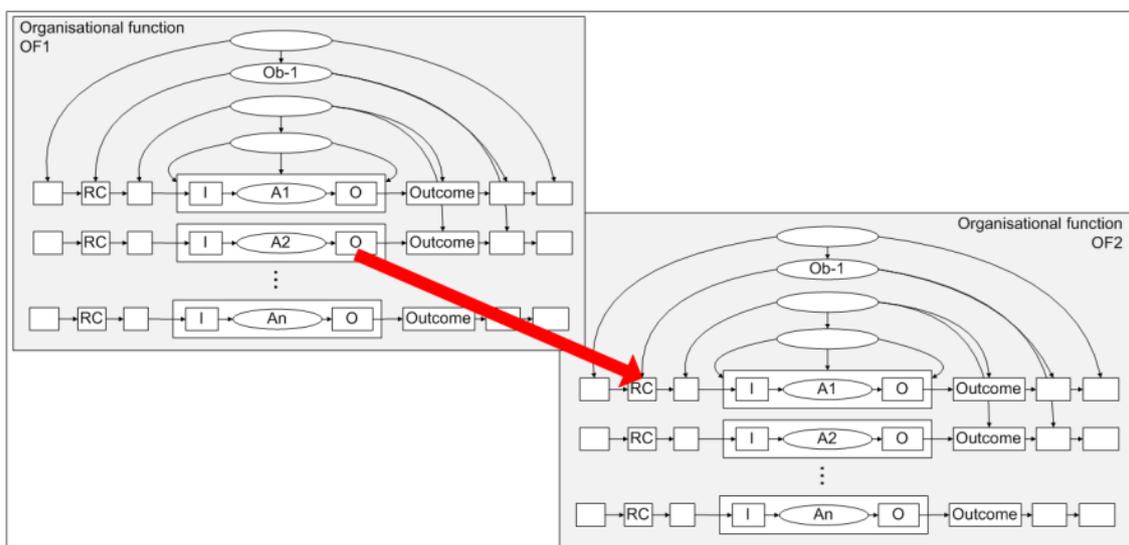


Figure 4-1: IFPM for OF1 and OF2, where OF1 is investigating

When OF1 designs process A2, this evaluation process will identify that A1 in OF2 is potentially hampered and why it is potentially hampered. In Process 1, the organisational function OF1 conducts the evaluation of the process through the use of the evaluation framework.

This process takes as input:

- the process to investigate along with its' inputs and outputs;
- all entities pertaining to the integral framework;
- the system or systems of which it forms part.

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As output this process:

- produces outcomes resulting from the output of the process under investigation, which may hamper other business processes;
- identifies business processes that are executed elsewhere in the organisation, which may be hampered by the outcomes of the process under investigation;
- may not deliver any evidence of hampering.

4.1.3.2 Process 2: Identify hampered inputs

This process focuses on identifying inputs to the process under investigation which possibly may be hampering the process.

Figure 4-2 below depicts this scenario. Quite similar to the case discussed in Process 1 above (paragraph 4.1.3.1), the difference is that organisational function OF2 is experiencing an underperforming process and conducts an investigation on the possible reasons.

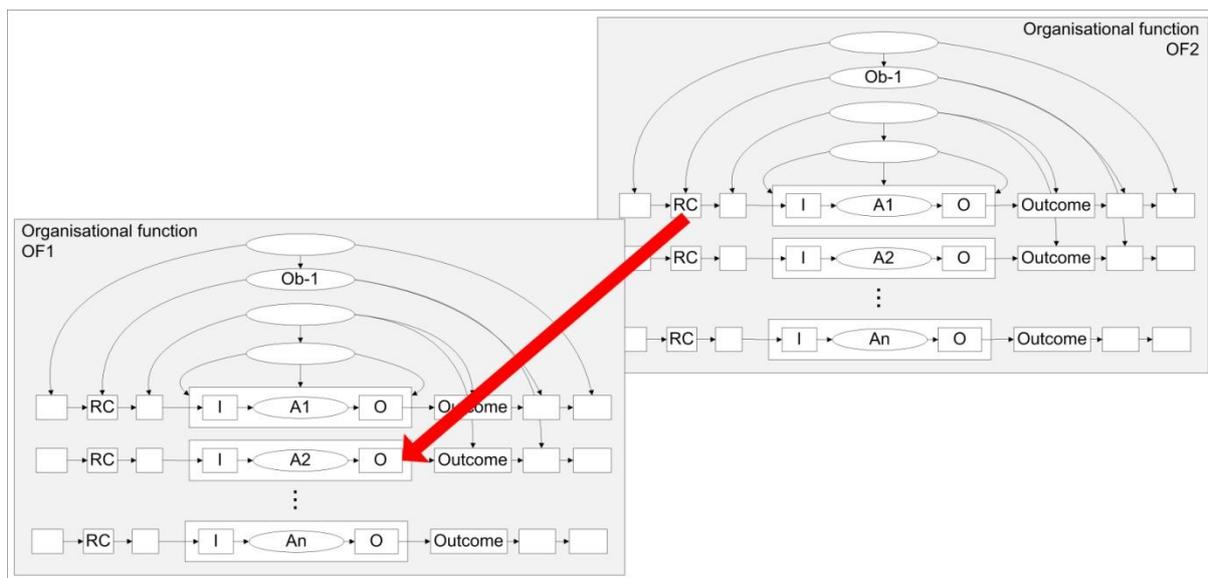


Figure 4-2: IFPM for OF1 and OF2, where OF2 is investigating

This process takes as input:

- the process under investigation along with its inputs and outputs;
- all the entities of the integral framework for the process under investigation.

As output this process produces:

- contributions, resources or inputs to the process under investigation which may hamper the said process.

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4.1.3.3 *Process 3: Discover hampering processes*

The process of discovering hampering processes is employed when organisational functions identify a lack in the achievement of a common objective, but the role-players are not sure which processes hamper the collaboration between the organisational units and thereby the achievement of the common objective.

The process of discovering hampering processes thus focuses on identifying processes which impede cross-organisational collaboration and success between units.

This process takes as input:

- an objective common to the participating organisational units.

As output this process produces:

- a list of processes that potentially may hamper collaboration between organisational units.

It is important to realise that if an organisational function is experiencing an underperforming process, following this approach alone will not give the researcher the full picture. Many other methodologies exist to improve process performance. These methodologies typically focus internally on the process. This is done by redesigning or changing process steps in order to improve and streamline processes. Methodologies that are commonly used include Six Sigma (Heckl, Moormann & Rosemann 2010), Theory of Constraints (Mahesh & Lynn 2008) and Process Reengineering (Hammer 1990). The literature on the success and limitations of such approaches are well documented (Heckl, Moormann & Rosemann 2010; Pedersen & Huniche 2011; Kumar et al. 2008)

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4.1.4 The Evaluation axis

Table 4-4 below shows the entities associated with the evaluation axis. These entities focus on measuring and evaluating the success of the investigation process.

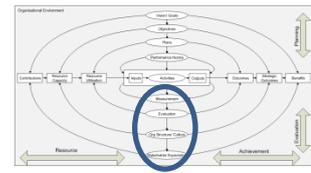


Table 4-4: Integral framework for Performance Evaluation Processes – Evaluation axis

Integral Framework for Performance Evaluation Processes	
Evaluation axis	
Entity	Entity value
Measurement	Qualitative evidence that hampering does exist.
Evaluation	Effect of hampering on strategic outcomes.
Organisational structure and culture	Each organisational unit
Stakeholder expectation	Identify outcomes of a process that possibly may hamper another business' process. Understanding why hampering occurs in order to inform corrective action.

4.1.5 The resource axis

The resources axis is essentially concerned with all the contributions, resources and inputs needed by the evaluation processes to conduct the investigation. Table 4-5 below shows the entities, Resource utilisation, Resource capacity and Contributions.



Table 4-5: Integral Framework for Performance Evaluation Processes – the Resource axis

Integral Framework for Performance Evaluation Processes	
Resource Axis	
Entity	Entity value
Resource utilisation	Domain experts for supporting evaluation of a process executed within a specific domain. Expert in the use of the evaluation framework.
Resource capacity	Business resources need to have a comprehensive understanding of their environment. Resources conducting the investigation must be versed in Systems thinking, Conceptual thinking, as well as complex systems.
Contributions	Domain experts, business resources and resources doing the investigation need to contribute whatever is needed.

4.1.6 Conclusion of the development of the Integral Framework for the Evaluation Processes

An integral framework has thus far in the present study been developed for the evaluation framework. The integral framework indicates three processes that can be followed in order to identify and evaluate processes, inputs or outputs that hamper business processes. The framework also shows the vision to which these processes are contributing, the required resources to execute these processes, the possible benefits, and lastly how the output and outcomes are evaluated.

In the next section each of the processes listed in **Table 4-3** will be discussed in detail.

4.2 Process 1: Evaluate hampering outcomes

The evaluation process to identify hampering outcomes is applicable when an organisational unit needs to evaluate the outcomes of a proposed or existing process to determine whether it will hamper other processes or executions of strategies in the organisation. Such an evaluation works on the assumption that the process to be evaluated is known, and consequently its inputs and outputs.

4.2.1 Step 1: Define the Null Hypothesis

In statistical analysis a Null Hypothesis or Zero Hypothesis (H_0) is a statement about the parameters of a probability distribution. To test the hypothesis, random data is sampled and by calculating the appropriate statistics, the hypothesis is either rejected or not (Sarkar & Mukhopadhyay 2013). A Null Hypothesis is never accepted, even if no statistical data could prove it wrong. The ultimate goal of hypothesis testing is the attempt to prove that a statement is invalid. If no proof can be found, it can still not be accepted that the statement *is* valid. Although hypothesis testing mainly is linked to inferential statistics, the approach in this evaluation framework, as suggested by the present study, uses the same construct.

In the process that is currently discussed an organisational division needs to confirm whether an outcome of one of their processes hampers the effectiveness of other processes in the organisation. The rationale behind this approach is to define a hypothesis according to which the outcome does not hamper other processes or executions of strategies and then attempt to prove the hypothesis as invalid.

In Step 5 of this section it will be shown that causal loop diagrams very easily can grow outside the intended boundaries of the investigation. This development impedes the investigator in getting

Part 4: Developing the evaluation framework

emerged properties to converge into a conclusive discovery. Whilst developing the causal loop diagram in Step 5, keeping the Null Hypothesis in mind will assist in keeping the thought processes within bounds. (The outputs of Step 3 and 4 will also assist with such a task. This will become clearer when these steps are discussed).

4.2.2 Step 2: Determine the integral framework by which to measure performance for the process under investigation

During Step 2, whilst evaluating the hampering outcomes, the integral framework must be determined for the process under investigation. Determining the integral framework gives the investigator a macro-micro view of the process under investigation in relation to the organisational vision (Rouse & Putterill 2003).

On a macro level, this framework indicates the objective and benefit the process is designed to contribute to, which stakeholders are impacted by the execution of the process and what the expectations those stakeholders hold. This macro view is essential for process evaluation. Knowing to which objective the output of the process contributes and to which benefit it leads, informs the way in which such a process is evaluated. For example, a benefit revolving around shareholder value will result in an evaluation approach focusing on profitability.

Knowing what the stakeholder expectations are – as recorded on the evaluation axis – highlights the potentially diverse expectations from the various stakeholders who are impacted by the process. For example, shareholders are considered stakeholders that expect an increase in shareholder value. However, very few processes in an organisation will only deal with shareholders as stakeholders. Customers – meaning consumers of the process output – may expect a quality output and are potentially oblivious to the shareholder value it brings to the organisation. Each of these defined stakeholders is referenced in a later step in the evaluation process. Understanding the expectations of each of these stakeholders will inform the investigator further into the investigation on the interactions between stakeholders and on the evaluation process.

On a micro level the integral framework indicates how the process inputs and outputs are measured and also which outputs lead to strategic outcomes. It is important to know upfront which inputs the process under investigation take since it may emerge from the investigation that certain inputs are omitted, which means an output is produced which may hamper other organisational functions. Also, if the investigator understands how the output is being measured, it may inform how appropriate it is to use this output as an input to downstream processes.

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The integral framework presented in a table as set out in **Table 2-1** can be applied to convey all of the dimensions in a concise manner.

4.2.3 Step 3: Develop a systemic overview model

After the macro-micro view of process under investigation is formalised, a systemic overview model needs to be developed. Rouse claims (Rouse & Putterill 2003) that the integral framework provides a system view of the organisation since it takes into account the basic elements of the process, such as: vision, stakeholders, benefits and contributions. Although this may be true, a much more detailed and broader view of the systemic environment is needed in order to inform the investigation on whether downstream processes are hampered.

In the experience of the researcher, it is also recognised that developing casual loop diagrams as part of the systems approach is a challenging exercise. Therefore the present study suggests an incremental approach in developing causal loop diagrams. The first incremental step would be the development of the systemic overview model.

The first decision to take when modelling the systemic overview, is the system boundaries. It is important to realise that irrespective of the chosen boundaries of a system, such a system in itself is a subsystem, which forms part of a larger, containing system along with other subsystems. The case can be considered where an investigator chooses to model an organisational function as a system. This organisational function along with all the other functions as systems in their own right, form part of the organisation, which constitutes the containing system. Realising this, the investigator may choose rather to select the organisation as such as the system boundary. However, the organisation as a system in turn forms part of, probably several greater containing systems: the industry, all listed companies, et cetera. The larger the system is and the more parts that are contained in the system, the more relationships and interactions exist that need to be considered.

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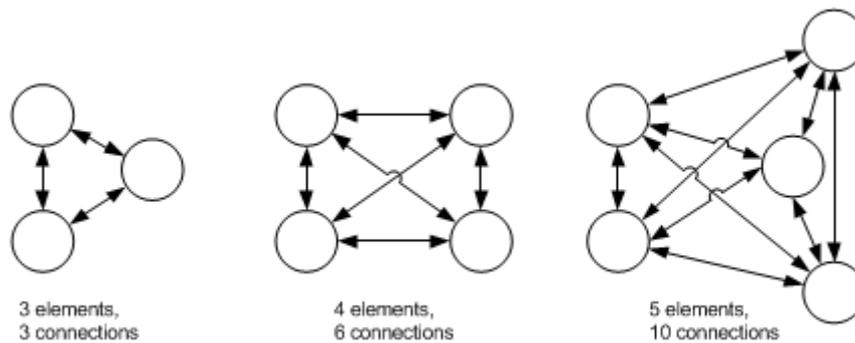


Figure 4-3: Relationship between connections and the number of elements in a system

Complexity of systems dramatically increase with an increase in the number of parts, relationships and interactions.

This is depicted in **Figure 4-3** above. It is thus vital to start off with a small system consisting of a few parts, relationships or interactions. If this is proven insufficient to uncover the understanding of the causes of issues, one needs to redefine the system boundaries and repeat the investigation. (This principle is shown in Case study 3: Unveiling the barriers to cross-selling between Santam and Niche business units.)

The integral framework as shown in step 2 defines all the stakeholders impacted by the output of the process. In a complete systemic overview model all these stakeholders need to be included. This however may result in a large model and it may be impractical to analyse the model in one iteration. If a subset of such a large model is carefully selected, and this subset delivers evidence to reject the Null hypothesis then the investigation is ceased without the analyses of the full model. From a practical perspective this increases the efficiency of the investigation and consequently results will be shown quicker. It is thus suggested, as a starting point, to define the system boundaries in such a way to include a few stakeholders, their relationships and interactions and objectives as identified in the integral framework. Then once the investigator has progressed through all the steps of the evaluation framework, and no evidence to reject the Null hypothesis was found, the system boundaries as defined in this step can be broadened. With this broader view of the system the investigator will repeat all the steps in the evaluation framework in order to include more stakeholders, interactions and relationships. The inclusion of these stakeholders may influence the casual loop in such a way that evidence emerges which contradicts the Null hypothesis. If still no evidence emerges, even more stakeholders need to be included into the systemic overview model. This process is repeated until all the stakeholders as defined by the integral framework are included into the systemic overview model. At this point, if no evidence has emerged then it does not make sense to increase the system boundaries any further. All stakeholders impacted by the

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output of the process have now been considered in the investigation, along with all their relationships and objectives and these did not show any evidence whereby the Null Hypothesis may be rejected. At this point the investigator may have enough confidence to cease the search for evidence.

Below a simplified example is provided of a systemic overview model, which contains three stakeholders, one objective and several relationships and expectations.

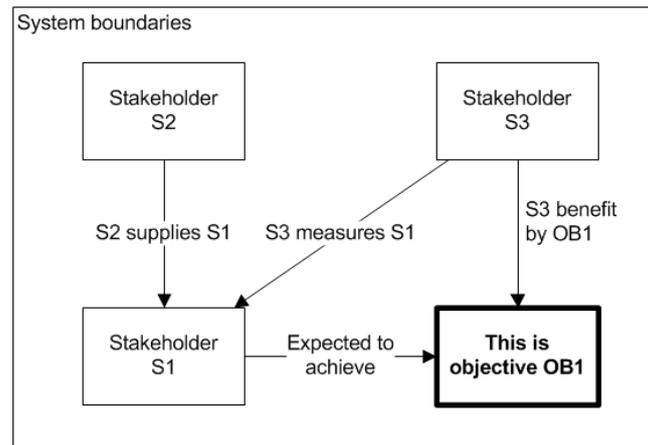


Figure 4-4: Systemic overview model – an example

This is still a high-level view of the system and different investigators are bound to interpret the entities and relationships differently. Therefore it is advisable to add a brief description of each entity on the model. This should convey the entity's objective in the context of this model, and include a brief exposition of the major interactions with other entities. Such a description focuses the attention on the pertinent entities, objectives and relationships, which are depicted in the model and acts as a guide during the execution of the next step.

Thus, in summary, the systemic overview model has the following purpose:

- i. Define the system boundary.
- ii. Show high level relationships, interactions and expectations.

Viewing the system holistically (or rather holistically in terms of the current definition) gives the investigator an overview of the potentially diverse set of interacting elements, as well as the relationships between these elements. When determining the behaviour of a specific system, the focus should be on the relationships and interactions between the elements of the system. These aspects drive the behaviour of the system and not the individual elements of which the system is made up of (Mingers & White 2010).

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When this is done, the investigator can proceed to the next step in the process of evaluating outcomes that hamper other processes.

4.2.4 Step 4: Develop multiple partial views

Mingers states that people act in accordance with the purpose they fulfil within their different containing system (Mingers & White 2010). In the context of the organisational function, it is thus fair to say that people will act in accordance with the purpose of their role in the organisational function, as well as in-line with the purpose of the organisational function. Furthermore, one of the unintended consequences of silo driven organisations is that employees commit their loyalty to the organisational function they report to, rather than to the organisation as a whole. This effect is enhanced in employees that reside in the same function for an extended period, or in employees working in the organisational unit for a long time (Sy & Côté 2004).

All these factors contribute to a specific view among employees of a situation which they call “fact” (Barton & Haslett 2007). The same situation, however, may be seen differently by an employee with a different viewpoint. Mitroff classified these different perspectives into three categories: a technical perspective, an organisational or societal perspective and a personal or individual perspective (Mitroff & Linstone 1993). To achieve a higher level of understanding of the “true fact”, multiple of these partial views need to be synthesised into one viewpoint. The more partial views obtained in such an overarching viewpoint, the higher the degree of completeness of the “fact” that is perceived. Research has confirmed that the incorporation of disparate views increases the investigators’ ability to solve complex problems (Syson & Perks 2004). Checkland termed this perceptive ability *the rich picture view*, which is compiled from the CATWOE conceptual model, where the W in the acronym represents the world-view. The CATWOE model contains Customers, Actors, Transformational processes, World-views, Owners of transformational processes and Environmental constraints (Checkland & Tsouvalis 1997).

When determining people’s view of a situation, it is important to keep in mind the difference between Espoused theory and Theory-in-use as discussed in paragraph 2.1.1. People are most likely to offer their espoused theory first when asked for their views. Capturing espoused views in the model will skew the results and thus hamper the effectiveness of the approach. It is vital to the success of the approach to capture the Theory-in-use since it focuses on the reality of the environment, which may contribute to the problem.

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Many mechanisms exist to elicit multiple partial views from stakeholders (Barton & Haslett 2007). An investigator should use the mechanism which is most appropriate for the stakeholders, the organisational culture, and which lies within possible geographical constraints.

In the present study, capturing these different perspectives is achieved through what is termed “user stories”. Such stories originated in Extreme and Agile methodologies for software development and are designed to capture user requirements (Qasaimeh & Abran 2011; Waltmunson, 2011). Typically these stories are elicited during interviews or workshops. The person in the role under consideration shares their view and the view is consequently captured as a user story. User stories are documented in the first person in natural language and should be read as if the person in the particular role was telling the story.

User stories have the follow a predefined form:

As a <user/stakeholder>, I want <goal> so that <value>

Where

<user/stakeholder> is the person having the need or expectation

<goal> is what the person wants to achieve, and

<value> is the benefit the person will experience once the goal is reached.

In the context of documenting multiple partial views, the same user-story construct is being used with the following form:

As a <role> the <subject/role> is /are viewed as <view> because <reason>

Where

<role> is the person or organisational function whose view is being documented

<subject/ role> is the element in a system the role has a view of

<view> is the view that is held by the role

<reason> is the motivation why this role has this view of this subject

Example:

As a broker the insurer is viewed as an income generating business partner because the insurer pays me commission on the premium of in-force policies.

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Developing multiple partial views has significant value for the incremental approach in developing causal loop diagrams and eventually discovering proof of hampering factors, should they exist. For every stakeholder in the systemic overview model, stories must be developed for the stakeholders' view of each and every other stakeholder in the model, as well as every single relationship, interaction and expectation between stakeholders. In other words, every block in the systemic overview model has a story about every other block, as well as a story about all lines.

An example consider the user stories linked to the systemic overview model from Step 2, which was dealt with above in **Figure 4-4**. **Figure 4-5** below depicts the user stories that Stakeholder S1 can entertain about the other stakeholders (left diagram), as well as the user stories about the relationships between all the stakeholders (right diagram). Developing all these user stories in terms of all the permutations will result in a high number of user stories. It can very well be that many of these stories are irrelevant within the context of the system and can be ignored. Through experience, the investigator will develop this insight which, consequently, will decrease the number of stories documented and thereby also the investigation time needed.

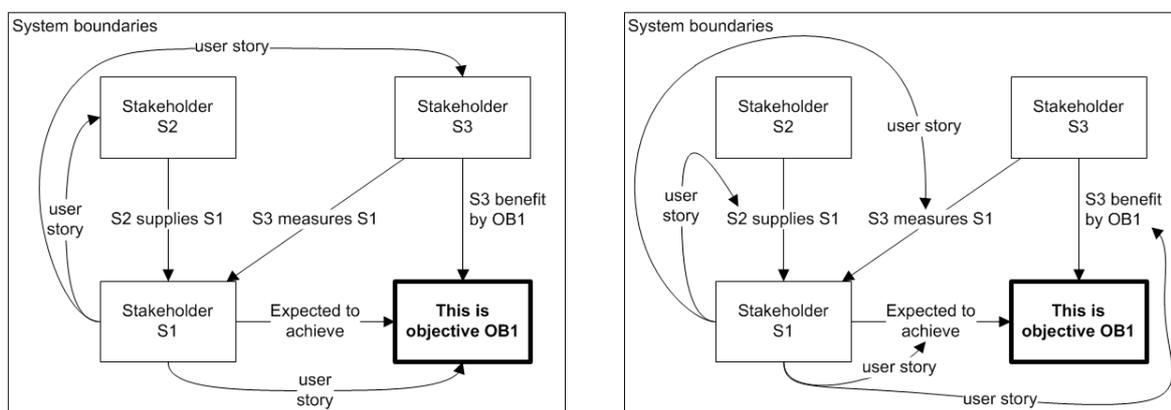


Figure 4-5: Stakeholder S1's user stories – an example

It is further important to realise that a stakeholder can have multiple stories about a single element in the system. For example, the broker may view the insurer as a business partner which results in commission payable to the broker AND the broker may view the insurer as an organisation serving the broker's client during the claims stage AND the broker may view the insurer as a risk to the broker's brand should the insurer render bad service to the policyholder.

Irrespective of the huge amount of potential user stories, having a holistic view which encompasses all elements from all the stakeholders are fundamental to the success of developing causal loop diagrams – which is a key contributor to the overall evaluation framework.

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On the positive side, once multiple partial views have been developed and documented, these may stay stagnant if no dramatic changes occur in the system. The broker in the example case entertains a certain view about insurers. Such a view is fundamental to the intermediated financial services industry and can therefore be re-used in all broker–insurer related investigations. However, other views such as customer service experience have a higher propensity to change. Where possible, organisations should keep a repository of user stories for investigators to re-use. Re-using user stories will not only result in a higher degree of consistency of the models across different investigations, but it will also speed up investigation time.

Thus, in summary, the multiple partial views have the following purpose:

- i. The different views inform the development of causal loop diagrams.
- ii. Stakeholders get to understand how they and their actions are perceived by other stakeholders.

4.2.5 Step 5: Develop a causal loop diagram

At this point the investigator should have a good high-level understanding of the system. Firstly, stakeholders and objectives emerged from the integral framework model. Then a systemic overview model has been developed which demonstrates high-level relationships and interactions between stakeholders. Lastly, each stakeholder’s view of the other and of their various relationships have been developed through the Multiple Partial Views model.

This step in the approach focuses on using the information in the previous steps to develop causal loop diagrams as discussed in paragraph 2.1.2 *Applying Systems thinking through causal loop diagrams*. The goal of this step is to determine how the behavior of the system changes over time given the feedback and influence that concepts exert on each other. By nature, complex systems contain a high number of elements and interactions. This threatens the comprehensible size of the causal loop diagram. Care must thus be taken to model only concepts in the causal loop diagram which fall within the boundaries of the system as defined in both models: the systemic overview model and the multiple partial views model. Having this boundary explicitly marked out was one of the purposes of defining the systemic overview model.

Part 4: Developing the evaluation framework

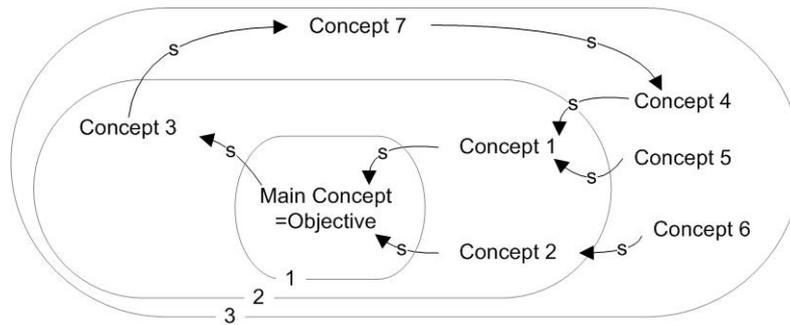


Figure 4-6: Recursively modelling concepts effecting the main objective

Developing causal loop diagrams is a nondeterministic process. No scientific approach exist that defines clearly how to develop a model, by providing a specific starting point, which is correct and representative of the system under investigation. However, in the experience of the researcher some guidelines do exist which may facilitate modeling. As a first step of this approach, the investigator needs to start with the objective of the process under investigation. In **Figure 4-6** above this objective is depicted by the most inner circle (it should be noted that these circles are not part of the model, but inserted purely for explanatory purposes). It is likely that this objective also surfaced in the multiple partial views model in the subject column. The modeling should begin by determining what will cause an increase of this objective. The relevance of these emerged concepts should be tested against the systemic overview model, as well as the multiple partial views. If it is shown to be relevant, the investigator should then plot these concepts on the model (Concept 1 and Concept 2 in **Figure 4-6**). Next should be determined which concepts increase or improves if this objective increases? Again the answers should be tested against the systemic overview and multiple partial views model and plotted on the model if it turns out to be relevant (Concept 3 in **Figure 4-6**).

At this point all relevant concepts with direct relationships to the main concept have been modeled (i.e. all concepts contained in oval 2 of **Figure 4-6**). Recursively the same process should be followed with the newly emerged concepts. Where possible, loops should be identified, for instance where an increase in the main concept leads to an increase in Concept 3, which leads to an increase in Concept 7. This in turn leads to an increase in concept 4 and then in 1, and eventually the main concept is increased even more.

Throughout the modeling of the causal loop diagram care should be taken to model only concepts that are practical and actually occurring within the commercial environment (the investigator should be aware of espoused theories). Constantly cognizance is required of emerging properties of the system – patterns where concepts are decreased through a vicious circle.

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As mentioned before, developing causal loop- diagrams is nondeterministic and no scientific method will instruct the investigator when to discontinue the development of the diagram. In the experience of the researcher, the following guidelines may assist:

- i. Once there is reasonable evidence that the Null Hypothesis can be rejected, further development of the causal loop diagram is unnecessary.
- ii. If the causal loop diagram cannot be developed further without breaking through the defined system boundaries, and the Null Hypothesis cannot yet be rejected, then:
 - a. Accept that the Null Hypothesis cannot be rejected or,
 - b. broaden the system boundaries in order to extend the reach of the causal loop diagram. It may very well be that the initial boundaries in the systemic overview were defined too narrow or too limiting.

Thus, in summary the causal loop diagram has the following purpose:

- i. Gather enough evidence to reject the Null Hypothesis.
- ii. Be comfortable that enough evidence has been sought and no grounds exist to reject the Null Hypothesis.
- iii. Broaden the system boundaries and re-investigate to reach either point i or ii above.

4.2.6 Step 6: Determine the outcome of the hypothesis testing

Based on the outcomes of the steps above the investigator has to state whether evidence exist to reject the Null Hypothesis. If the hypothesis is rejected, hampering does exist and the organisational divisions as a collective can decide whether the overall benefit is still positive for the organisation.

4.2.7 Conclusion for Process 1 of the evaluation framework

In paragraph 4.1 an integral framework was developed as part of the evaluation framework. The process block of this framework, as discussed in paragraph 4.1.3, referred to three processes – the first which was discussed in this section of part 4. As a summary, the process block has been duplicated below in **Table 4-6**.

Part 4: Developing the evaluation framework

Table 4-6: Evaluate hampering outcomes

Integral Framework for Performance Evaluation Processes			
Process			
#	Input required	Activity	Output produced
1	Process under investigation Domain knowledge	Evaluate hampering outcomes	Outcomes candidate for hampering business processes Business processes susceptible to being hampered No evidence of hampering found

The process of evaluating outcomes which may hamper other processes takes the process under investigation, as well as domain knowledge as inputs in order to facilitate evaluation. Through the pragmatic development of causal loop diagrams this process produces three possible outputs:

- i. An outcome of the process which will hamper another business process in the organisation.
- ii. A business process which can possibly be hampered.
- iii. A causal loop model that provides no evidence that hampering is taking place.

The application of Process 1 as described in this paragraph is shown in Case study 1 in paragraph 5.1.

4.3 Process 2: Identify hampered inputs

The second evaluation process is applicable when a specific process is less effective in reaching its objective than anticipated. When a process is underperforming, many root causes can exist and there are multiple approaches and methods to optimise and improve business processes. Radical methods were designed by Hammer in the 1990's and was called Business Process Reengineering (Hammer 1990). Other methodologies have a lower impact due to its incremental nature, for example: Lean Production, Six Sigma, Total Quality Management (TQM) and Kaizen (Heckl, Moormann & Rosemann 2010). When implemented, these methodologies have a good chance of improving turnaround time, process efficiency, process capability and reduction in variance of process statistics. Such methodologies are extremely important and organisations should recognise the business value it offers the organisation. However, these methodologies all focus inwardly on the process – i.e. downward thinking analyses. It focuses on cutting out waste from the process, making process steps shorter, et cetera. Therefore such methodologies are less- or not at all – concerned about the environment in which these processes were executed.

Nevertheless, if these methodologies have been implemented and the process still underperforms, then a process is needed that has a holistic view and follows a systems approach. What is needed is

Part 4: Developing the evaluation framework

a process that can answer the question: “What is really going on here?” The process discussed in this section offers such an approach.

Although this process contains very much the same elements as the approach discussed in the previous section (paragraph 4.2 *Process 1: Evaluate hampering outcomes*), it has one fundamental difference. This process focuses on the Resource axis on Rouse’s Integral Framework (Rouse & Putterill 2003). In other words, the focus is on inputs, resource capability and the contributions absorbed by the process under investigation to see whether these aspects potentially may hamper the process. One can argue that the SIPOC approach (Supplier, Input, Process, Output, and Customer) as part of the Six Sigma Methodology covers this facet of evaluation of the process (Gibbons et al. 2012). However, the SIPOC approach only specifies the supplier of the inputs and the contributions. It does not refer to the actual resource capability of the supplier. This approach also specifies that inputs should be evaluated and measured, but provides no context for the focus of evaluation of these inputs. It will be shown in Case study 2 that, without providing a context for the measurement of the input, an organisation may overlook an incapable input by blindly accepting that it has been evaluated by the supplier.

The steps are the same as for Process 1 discussed above:

Step 1: Define the Null Hypothesis

Step 2: Develop the integral framework for the process under investigation

Step 3: Develop a systemic overview model

Step 4: Develop multiple partial views model

Step 5: Develop a causal loop diagram

Step 6: Determine the outcome of the hypothesis test

4.3.1 Conclusion for Process 2 of the evaluation framework

According to the integral framework, which was developed for the evaluation process in paragraph 4.1, the following can be deduced. A second process follows which can be used to execute the plan of establishing the reasons why a process is hampered. This process entails the identification of hampering contributions, resources or inputs. Following the steps above will highlight any such element should it exist. The application of this process is shown in Case study 2 in paragraph 5.2.

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Table 4-7: Identify hampered contributions, resources or inputs

Integral Framework for Performance Evaluation Processes			
Process			
#	Input required	Activity	Output produced
2	Process under investigation Domain knowledge	Identify hampered contributions, resources or inputs	Contribution, Resource Capacity or Inputs which possibly may hamper the business process under investigation

4.4 Process 3: Discover hampering processes

The approach in both processes (Process 1 and Process 2) discussed above revolved around a known process.

- Process 1 caters for a division that has developed a new process and need to check whether the outcomes delivered by the process would hamper any other processes or executions of strategies in the organisation.
- Process 2 caters for a division struggling with the performance of a process and suspect that this process is being hampered through contributions, resources or inputs outside of this divisions' control.

The questions remains, however, what happens when organisational units identify that they are struggling to meet an organisational objective, but they don't know which process is failing or underperforming?

Referring back to the integral framework developed for the evaluation process as elucidated in paragraph 4.1, the objective was stated as:

None of the strategies executed in any organisational unit will impact negatively on any other organisational unit without the strategy being properly assessed and evaluated.

Consider the scenario where two organisational units both have growth in terms of an organisational target. For this scenario, assume both organisational units have difficulty to achieve this target and suspect that they might be hampering each other. Thus, the trigger to the investigation is not a process that needs to be evaluated, but the collaboration (or rather – the lack of collaboration) between the two business units.

Part 4: Developing the evaluation framework

Process 3 therefore focuses on this scenario, which is to uncover the processes that are hampering organisational units in achieving an objective. The process block in the integral framework for the evaluation process indicates the third process: *Discover hampering processes*.

Table 4-8: Discovering hampering processes

Integral Framework for Performance Evaluation Processes			
Process			
#	Input required	Activity	Output produced
3	The desired future state Domain knowledge	Discover hampering processes	List of processes which hamper collaboration

The steps followed in Process 3 are slightly different than in Process 1 and 2, since it is not a specific business process which needs to be investigated, but rather the interactions and relationships between two or more organisational units. Since no specific process is being investigated, there is no need for the integral framework to be developed; therefore Step 2 can be ignored. However, an entity captured in the integral framework that is important for this process is the objective. The two organisational units first must agree on the objective that they collectively aim to achieve before the investigation can continue on why they fail to achieve this objective. Defining an agreeing on the objective then becomes the new Step 2 in this process.

The steps followed in this process are:

Step 1: Define the Null Hypothesis

Step 2: Define the collective objective

Step 3: Develop a systemic overview model

Step 4: Develop multiple partial views model

Step 5: Develop a causal loop diagram

Step 6: Determine the outcome of the hypothesis test

4.4.1 Conclusion for Process 3 of the evaluation framework

Process 3 is the last example in the multiple processes that can be used to uncover hampering conditions. The application of this approach is shown in Case study 3 in paragraph 5.3.

Part 5: Validating the evaluation framework

The objective of this section is to validate the use of the evaluation framework using case studies taken from the real world. Case studies had to be employed as a validation mechanism due to time constraints of the research. However, each case study reflects the commercial environment accurately and applying the framework to such a case study makes for a realistic representation. Two of the case studies (Case study 1 and 2) are actual current day challenges within the commercial environment. The third case study is based on an investigation that was conducted in the commercial environment.

5.1 Case study 1: Acquiring portfolios of policies through one broker

The first case study considers the scenario where Broker Distribution is attempting to acquire a portfolio of policies in one action through a single broker. The aim is to move business away from a competitor insurer and to contribute significantly to Broker Distribution's growth and profit targets. Broker Distribution experiences difficulty in achieving the book transfer required, due to various reasons. This case study considers the specific cause of applying the pricing model. The pricing model out-prices the bad risks in the prospective portfolio, which makes the transfer less appealing to the broker.

The postulation is that if Risk Services used the evaluation framework during the development of the scientific pricing model, as suggested in this study, the framework would indicate that the pricing model could hamper Broker Distribution's growth target in the context of acquiring portfolios of policies. For this case study, the role of Risk Services should be assumed that they are planning to develop a scientific pricing model and use the evaluation framework to assess the possible impact on their stakeholders.

This case study applies the successive steps of Process 1 of the evaluation framework as discussed in paragraph 4.2.

5.1.1 Step 1: Define the Null Hypothesis

Risk Services developed a scientific pricing model that is effective for all cases and variants of the acquisition process.

Part 5: Validating the evaluation framework

5.1.2 Step 2: Develop an integral framework for the process under investigation

Risk Services already has an objective to maintain a healthy risk pool through a more accurate risk assessment. In designing the process of developing such a scientific pricing model, the following integral framework is created.

Table 5-1: Integral framework for the process under investigation

Integral framework to develop an scientific risk assessment model		
Planning axis		
Entity	Entity value	
Vision/Goal	Provide Insurance good and proper, while increasing shareholder value	
Objective	Maintain a healthy risk pool	
Plan	Increase accuracy of risk assessment	
Performance norm	Risk pool profitability	
Achievement axis		
Entity	Entity value	
Benefit	<i>For the organisation as a stakeholder:</i> The organisation as a whole gains maximum shareholder value through profitable growth by providing risk cover at the correct tariff.	
Outcome and strategic outcome	Ability to assess a current risk accurately in the risk pool. Ability to assess accurately any prospective risks to the risk pool . A healthy risk pool, i.e. a risk pool containing correctly assessed risks.	
Process		
Input required	Activity	Output produced
Historical risk cover premiums and claims information	Develop scientific risk assessment model	Scientific pricing model presenting the ability to price risks.
Evaluation axis		
Entity	Entity value	
Measurement	According to class of insurance: whether risks that were priced through the scientific pricing model yield a profit for a given period	
Evaluation	Profitability of correctly priced risks in the risk pool over a given period	
Organisational structure and Culture	Underwriters and actuaries in a profit centric organisational unit. Statistical analyses of historical data are considered highly valuable. The resources are considered averse to risks and they proudly attribute the the historical underwriting success to this trait .	

Part 5: Validating the evaluation framework

<p>Stakeholder expectation</p>	<p><i>External:</i></p> <p>Prospective policyholder – a legal entity seeking cover for a risk.</p> <p>Broker – the broker earns commission on the premium and has to maintain a healthy balance between too low and too high priced premiums. Too high priced premiums could mean the broker can lose the opportunity and too low priced would mean that the broker loses commission income.</p> <p><i>Internal:</i></p> <p>Risk Services – achieve objective through successful implementation of the plan.</p> <p>Broker Distribution – needs a mechanism whereby risks can be assessed accurately. Being driven by income statements, it is eminent that this unit seek opportunities that yield profit and that these opportunities are priced correctly.</p> <p>Operations – mechanism to calculate price in an automated manner through the use of the scientific based pricing model.</p>
Resource axis	
Entity	Entity value
Resource utilisation	Statistical methodologies
Resource capacity	Actuaries
Contributions	<ul style="list-style-type: none"> - Historical data stratified in appropriate categories - Statistical tools

5.1.3 Step 3: Develop a systemic overview model

Using the information on the stakeholders as identified in Step 2 and developing a systemic overview model, brings to the fore the relationships and interactions between systems and the objective at hand.

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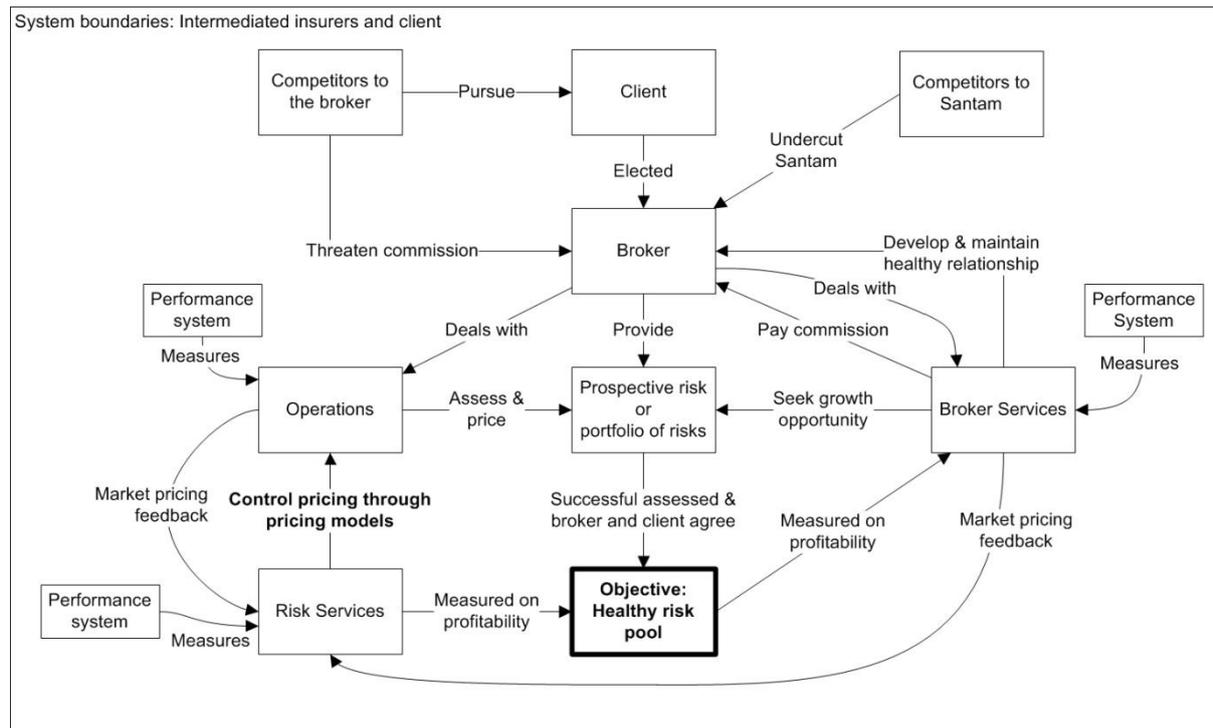


Figure 5-1: Systemic Overview for Case Study 1

The entities to which this model refers can be expounded as follows:

- **Risk Services** are responsible for maintaining a healthy risk pool and is measured on profitability. Since the broker deals with Operations for quotations, Risk Services provides Operations with a pricing model. Risk Service also depends on the Operations division and the Broker Services division for feedback from the broker regarding to comparative prices other insurers did offer.
- **Operations division** deals with the broker and prepares a quotation for risk cover.
- **Broker Services division** is responsible for maintaining the relationship between the broker and Santam and pays the broker commission based on the premium of the in-force policies in the broker's portfolio. In order to stimulate growth, and consequently profitability, Broker Services also continually seek growth opportunities from the broker.
- **The broker** is elected by the client to act as intermediary between the client and the insurer. The broker thus provides the insurer with opportunities on which to quote. The broker's revenue stream depends on commission paid by the insurer, which is based on the total premium of the in-force policies with that insurer. The broker has to maintain a healthy relationship with the client since the client may decide to move to another broker, which causes a decrease in the broker's commission. Other factors also threaten the broker's commission income. An example is direct insurers and other brokers who are pursuing a relationship with the same client; and when contact form one broker is successful the other

Part 5: Validating the evaluation framework

broker loses the commission from that clients' policy. Competitors to Santam may quote the client less than Santam and if the client accepts this policy, the broker commission is then calculated on a lower premium amount.

- **The Performance System** measures each division and its employees according to an agreed performance standard and target.

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5.1.4 Step 4: Develop multiple partial views

Once the systemic overview model is defined, the user stories for multiple partial views need to be developed. See **Table 5-2** below for the most pertinent multiple partial views for each of the entities and relationships as defined in the overview.

Table 5-2: Multiple Partial View model developed for Case Study 1

	As a <role>	the <subject or role>	is/are viewed as	because
1	Underwriter in Risk Services	health of the risk pool	our responsibility to maintain	Risk Services is responsible for maintaining underwriting rules applied to assess risks.
2	Underwriter in Risk Services	Operations division	a sales culture and not a risk underwriting culture	they are focused on quoting and closing the sale.
3	Underwriter in Risk Services	Operations division	a source of feedback of the general market pricing provided by other insurers	they are in daily contact with the brokers who give them feedback.
4	Underwriter in Risk Services	Broker Services division	a source of feedback of the general market pricing provided by other insurers	they are in daily contact with the brokers who give them feedback.
5	Underwriter in Risk Services	control of pricing through a scientific pricing model	the mechanism used by non-underwriters to make underwriting decisions	the model provides an underwriting price and consequently the non-underwriter does not have to calculate the price manually.
6	Underwriter in Risk Services	need to control pricing accurately	more important at times when the health of the risk pool is lower than expected	the higher the control the more profitable the risk pool becomes.
7	Broker	Operations division	a department in Santam that produces a quote	I have submitted a request to them.
8	Broker	Broker Services division	a department in Santam that supports the brokerages' growth	they make every effort to support me during acquisition of opportunities.
9	Broker	Operations- and the Broker Services divisions	departments I deal with during acquisition and sometimes dealing with them is difficult	their process takes longer than expected and is higher in complexity than the other insurers I deal with.

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	As a <role>	the <subject or role>	is/are viewed as	because
10	Broker	Client	someone who has elected me as intermediary	of my promise to good service and my knowledge about insurance.
11	Broker	Client	a potential source of income	if the client accepts an insurers policy through me, the insurer pays me a commission.
12	Broker	Insurer	an organisation that enables me to provide good service to my client	they respond quickly to my requests and gets the job done without asking many questions.
13	Broker	effort associated to dealing with an insurer	something which must be minimised	I have to maximise the time available to build new relationships and source more opportunities.
14	Broker	propensity of placing business with an insurer	dependent on the health of the relationship between us	I have to trust the insurer and be confident that the insurer will enable me to provide good service and the correct price to my client.
15	Broker	portfolios of policies	a set of business to be given only to insurers which have proven their ability in smaller cases and over an extended period	portfolios of policies are difficult to move and takes time and effort which I will rather spend building new relationships.
16	Broker	process of placing portfolios of policies	tedious and time consuming	every insurer's product structure, underwriting rules and technology platforms are different and to convert from one product to another requires multiple decisions and negotiation between insurer, broker and client.
17	Relationship Manager from Broker Services	health of the risk pool	high importance	Broker Services are partly measured on profitability.
18	Relationship Manager from Broker Services	profitability target	achievable through growth and retention of good risks	growth through good risks contributes greatly to profitability.
19	Relationship Manager from Broker Services	the broker	as a business partner	he/she is considered the primary source of new business opportunities.

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	As a <role>	the <subject or role>	is/are viewed as	because
20	Relationship Manager from Broker Services	relationship with the broker	difficult to maintain	it takes time and effort and there are many such relationships to maintain.

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Some common themes have emerged from these partial views:

1. The broker wants to maintain a relationship with the client at the highest possible premium in order to maximise his/her own commission income, but without losing the client (views 10, 11, 13).
2. Broker Services wants to stimulate profitable growth by spending as little time as possible on every opportunity, in order to spend more time building new relationships with brokers and strengthening existing relationships (views 14, 17, 20).
3. Risk Services wants to provide the organisation with a mechanism to assess all risks accurately that are entering “their” risk pool (views 1, 2, 5, 6).

5.1.5 Step 5: Develop a causal loop diagram for the systems identified in Step 3

Given the systemic overview that was developed in step 3 and the multiple partial views developed in step 4, a more detailed causal loop diagram is developed showing detailed relationships and interactions between concepts.

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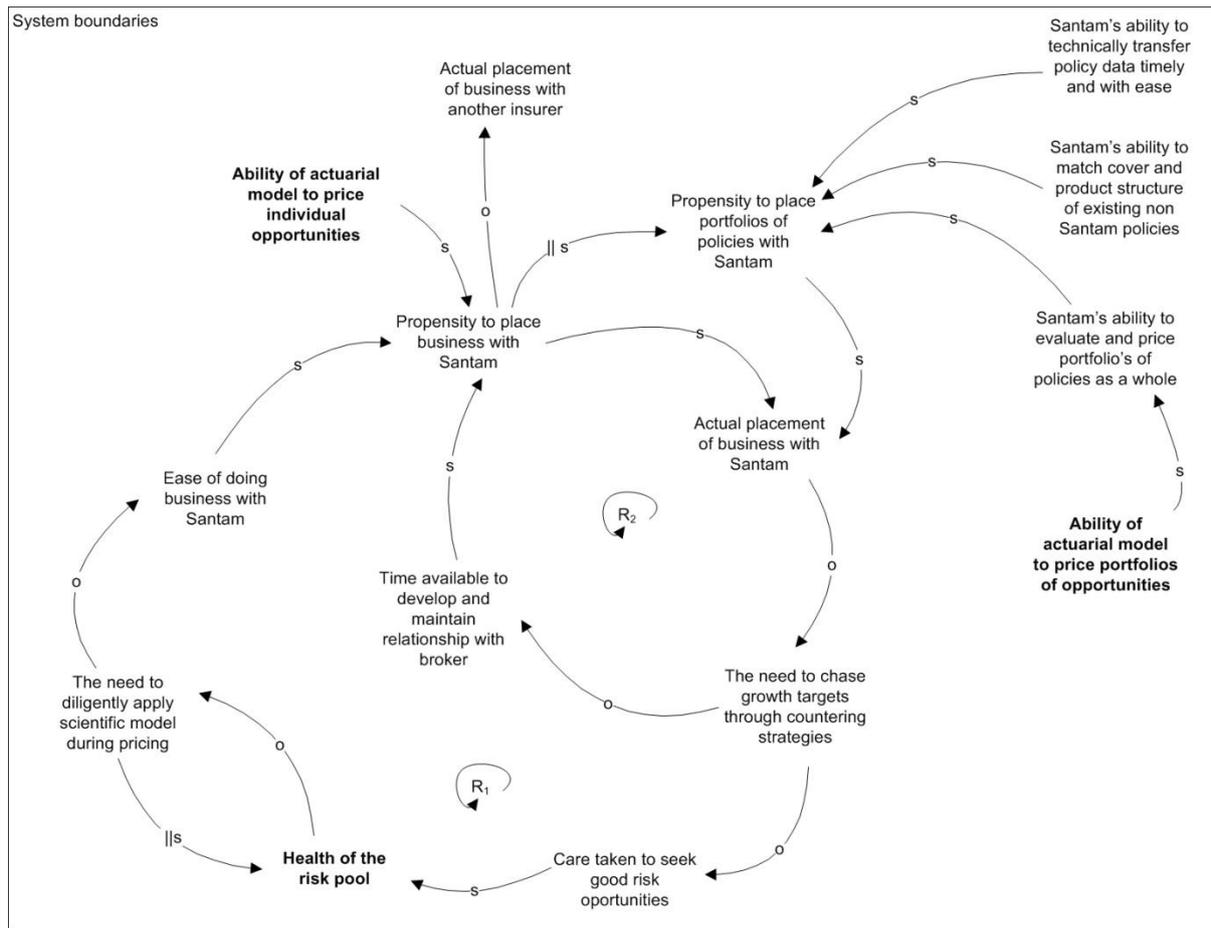


Figure 5-2: The causal loop diagram for Case study 1

The casual loop diagram depicted in **Figure 5-2** can be used to ascertain whether the actuarial model as developed by Risk Services can threaten the objective for which it was developed.

Risk Services has as its objective a healthy risk pool (view 1). In **Figure 5-2** this objective situated at the bottom of the diagram and is highlighted in bold text. As a starting point, the assumption can be made that a healthy risk pool exists. A healthy risk pool implies a lesser need to apply the scientific pricing model diligently during acquisition of good risks (view 6) and this leads to an increase in the ease of doing business with Santam from the broker’s perspective (view 9). An increase in the ease of doing business with Santam increases the propensity for the broker to place business with Santam, which leads to the actual placement of more business (view 13). The placement of more business contributes to the growth targets and the profitability target is achieved through the placement of good risks and having a healthy risk pool. Therefore Broker Services has a lesser need to pursue growth targets through tactical countering strategies (view 18). This leaves Broker Services with more time available to develop new relationships with brokers and maintain existing relationships (view 20), as well as to seek good-risk opportunities to quote on. Spending more time with brokers in turn lead to an increase in the propensity of brokers placing business with Santam

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(view 14) and this causes a reinforcement loop R_2 . Reinforcement loop R_1 is formed when Broker Services take care to seek good risks and this eventually increases the broker service experience. A positive service experience increases the health of the relationship between Santam and the broker and this increase the broker's propensity to place more business with Santam.

However, assessing individual risks by applying the scientific based risk model for the acquisition of single opportunities, are not the issue under discussion in this case study. Risk Services has developed this scientific risk model and thus far it has been proven to achieve the set objective of enhancing the health of the risk pool.

Consequently acquiring portfolios of policies needs to be assessed. Several factors increase the propensity of a broker placing portfolios of policies with Santam. Having successfully placed individual policies for a period increases the propensity for a broker to place portfolios. In the broker's view Santam must first proof their ability, which has a delayed effect (view 15). This delayed effect is indicated with the double bar (||) in the "s" relationship. Other factors include Santam's ability to transfer the policy data technically in a timely manner and with ease; Santam's ability to match the cover and the product structure of the existing non-Santam policies to a Santam product structure without impacting the client, and lastly, Santam's ability to assess and price the portfolio of policies as a whole (view 15 and 16). This last factor is heavily determined by whether the scientific model can be applied to assess portfolios of policies.

In order to see how the behaviour of the system changes, the argument should be considered that the scientific model cannot be applied to assess portfolios of policies as a whole (indicated in bold in **Figure 5-2**). This will result in a decrease in Santam's ability to assess the portfolio as a whole, which will lead to a decrease in the propensity of the broker placing portfolios of policies with Santam. This in turn leads to a decrease in the actual placement of business with Santam, which increases the need to pursue growth targets through tactical and possible countering strategies. This leads to two unintended consequences: Firstly, an increase in the need to pursue growth targets leads to a decrease in the care taken to seek good risks; secondly, it decreases the available time to develop and maintain a healthy relationship with the broker. The second consequence results in lesser propensity for the broker to place business with Santam; the first consequence leads to a decrease in the health of the risk pool, due to the implementation of tactical acquisition strategies.

Thus the positive reinforcement loop as described in the first part of the causal loop diagram, is taken out of equilibrium by Santam's inability to price portfolios of policies correctly. Organisational units within Santam depend on the scientific model during the acquisition processes. When this

Part 5: Validating the evaluation framework

model is in fact used in the context of pricing portfolios of policies, it violates the very objective it has been developed to achieve – keeping the risk pool in good health.

5.1.6 Step 6: Determine the outcome of the hypothesis testing

As can be deduced from the information above, enough evidence exists to reject the Null Hypothesis.

Since the scientific pricing model cannot be applied to price portfolios of policies, this limitation will eventually hamper the objective of maintaining a healthy risk pool.

5.1.7 Conclusion of Case Study 1

If Risk Services applied this evaluation framework when the scientific risk model was first developed, the effect would have become clear if that model was applied in the context of acquisition of portfolios of policies. The scientific pricing model supports profitable growth through individual policies well, but when used in the context of portfolios the opposite may very well be achieved. Risk Services therefore faces a decision whether an alternative pricing mechanism needs to be used during acquisition of portfolio or whether the scientific model needs to cater better for such an acquisition.

5.2 Case study 2: Effects of centralising underwriting control

This case study shows how Operations uses Process 2 of the framework (cf. paragraph 4.3) to identify a hampering condition in one of their processes. A process was developed by the Commercial Contact Centre business unit in the Operations' organisational unit to target high value opportunities with a focussed acquisition process. Once evaluated, the process was less successful than anticipated and the key role-players were the first to be blamed for the lack of success. Using the evaluation framework, however, gives a much more comprehensive view of the root causes of such possible failure.

5.2.1 Step 1: Define the Null Hypothesis

All facets of the organisation – the people, process and technology – fully support the process for a focussed acquisition of high value opportunities.

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5.2.2 Step 2: Develop the integral framework for process under investigation

For the process of *Focused acquisition in the high value segment* the following integral framework as listed in **Table 5-3** can be developed.

Table 5-3: Integral framework for Case study 2

Integral framework for Operations division – focused acquisition in high value segment		
Planning Aaxis		
Entity	Entity value	
Vision/Goal	Provide insurance good and proper while increasing shareholder value.	
Objective	Profitability	
Plan	Increase conversion rate in a target segment.	
Performance norm	An increased conversion rate percentage of the target segment.	
Achievement axis		
Entity	Entity value	
Benefit	<i>For the organisation as a stakeholder:</i> The organisation as a whole gains maximum shareholder value through profitable growth by stimulating growth in a high value segment.	
Outcome and strategic outcome	Growth of high value policies. Significant increase in the average premium per unit.	
Process		
Input required	Activity	Output produced
High value opportunity Expert technical underwriting knowledge Knowledge of the environment of the physical risk Knowledge of circumstances to assist in negotiation	Focused acquisition in high-value segment	High value policies issued
Evaluation axis		
Entity	Entity value	
Measurement	Number of quotes produced in high value segment. Conversion rate in the high value segment.	
Evaluation	The success of the focussed acquisition is evaluated by an increase in volume of quotes produced, as well as by the conversion rate in the segment. As part of evaluation, the insurance landscape is taken into consideration in terms of economic times and at what rate the competitors are growing in the same segment of business value.	
Organisational structure and Culture	The Contact Centre is responsible for reacting to requests for quotes. Seeking the opportunities is a responsibility of Broker Distribution and thus a high value opportunity is given as an input. The culture of the Commercial Contact Centre in particular is closer to that of a service centre with underwriting expertise than a call centre.	

Part 5: Validating the evaluation framework

Stakeholder expectation	<p><i>External:</i> Prospective policyholder – a legal entity seeking cover for a valuable risk. This legal entity is probably a company with high value assets and multiple decision-makers (e.g. board of directors, partners, etc.) Broker – the person who earns commission on the premium. It is much more lucrative to sell and maintain large policies than lower-value policies; therefore brokers treat these clients as VIP's. Brokers also aim to minimise the risk of insurers driving these clients away through insufficient service or a negative track record on claims payment.</p> <p><i>Internal:</i> Risk Services – unit interested in healthy high value policies since it contributes significantly to the profitability targets. Exposure is higher and therefore these risks need to be underwritten very well by senior expertise. Broker Distribution – unit interested in high value business since it contributes significantly to both growth and profit targets. Brokers placing high value business with an insurer imply a sign of trust in the insurer's ability, which strengthens the relationship. Operations – unit interested in high value policies since it contributes to growth and profit targets.</p>
Resource axis	
Entity	Entity value
Resource utilisation	Underwriting guidelines, quotation tools
Resource capacity	<p>Several resources are involved in the focussed acquisition of high value policies:</p> <p>Skilled Contact Centre agent to receive the request and to prepare the quote. Often this entails a complex process of translating the existing cover given by a different insurer into a Santam product structure. This has to be done without compromising cover or causing over-exposure. Using the scientific pricing model, the quote must be tailored in such a way that financially it also makes sense for the client to move the policy to Santam. These agents are normally focussed on Contact Centre throughput and normally do not have the personas of sales people.</p> <p>Local Sales Support agent: a resource with technical underwriting skills, located decentralised from the Commercial Contact Centres in six regions nation-wide.</p>
Contributions	Contact Centre's ability to negotiate price and risk cover at the point of sale.

5.2.3 Step 3: Develop a systemic overview model

The systemic overview of the environment is provided by **Figure 5-3** below. The boundaries include Santam's relevant organisational units, the broker, the client, and the client's current insurer. For the purpose of this case study, the assumption can be made that the client has currently elected the broker as a intermediary and the only change for the client is the possible change in insurer (in real-life, clients with valuable risks are pursued by other brokers and insurers).

Part 5: Validating the evaluation framework

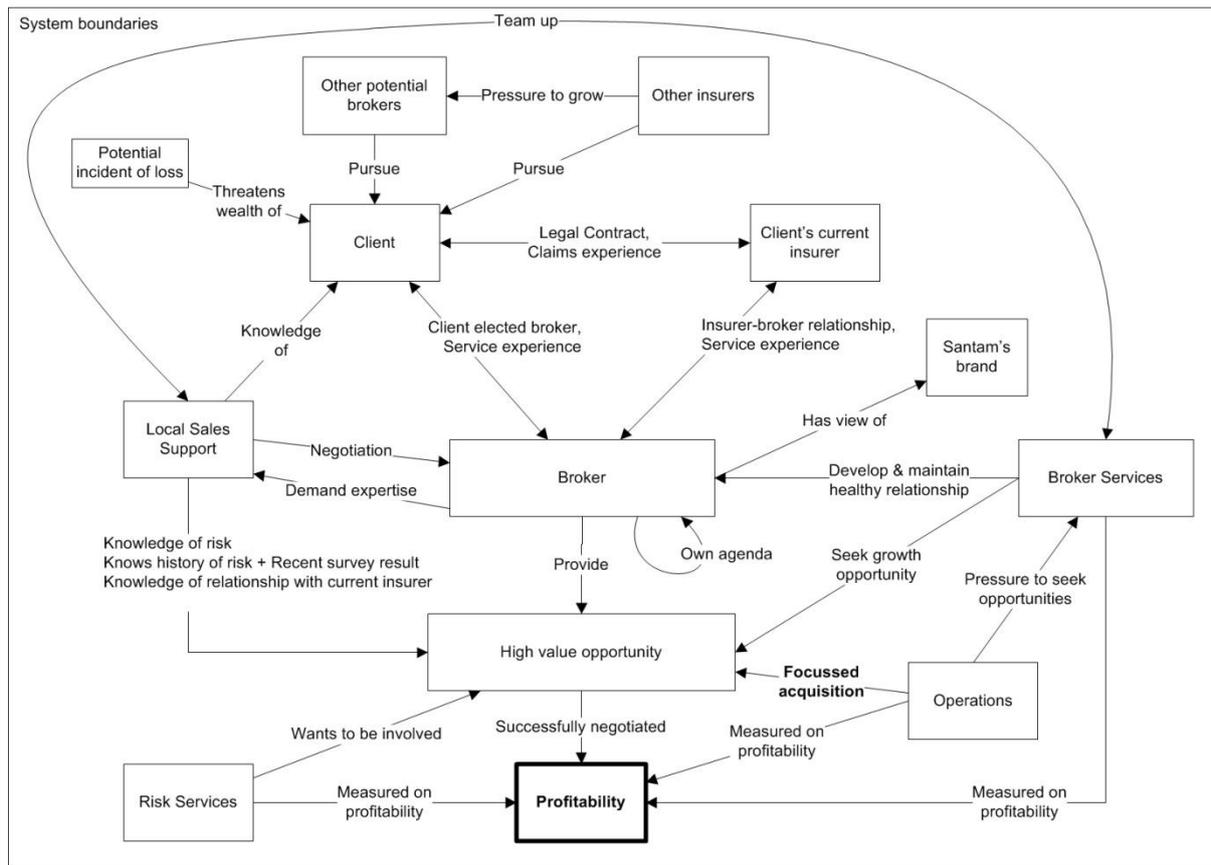


Figure 5-3: Systemic overview for Case study 2

The Profitability objective is highlighted, as well as the focussed acquisition – which is the process under investigation.

Risk Services is measured on profitability and therefore takes interest in this high value opportunity. High value opportunities typically impacts on Santam’s exposure and consequently place the health of the risk pool at risk.

Broker Services is also measured in terms of profitability and are thus incentivised to seek opportunities which would lead to high value conversion. This unit has to maintain a healthy relationship with the broker in order to strengthen the broker’s trust.

Operations depends on the broker to send in requests for high value opportunities and can only influence Broker Services to increase this volume – thus they put pressure on Broker Services to generate more requests.

Local Sales Support is a decentralised underwriting expert with the aim to forge a close relationship with the broker and to assist the broker with underwriting advice and even travel to a risk site with the broker if need be. Once the risk has been quoted on, the Local Sales Support has the

Part 5: Validating the evaluation framework

responsibility to negotiate the quote with the broker. This quote is prepared on the broker's behalf by the Contact Centre in Operations (not shown in this overview diagram). It may be the case that the Local Sales Support agent has knowledge of the risk, the client, the broker, and even the client's current insurer during the negotiation stage of the acquisition process. Broker Services team up with the Local Sales Support whilst in the process of quoting in order to manage the brokers experience and to give input during quote negotiation. During day-to-day operations, Broker Services also call on the Local Sales Support for technical advice for those instances where the broker demands expert underwriting knowledge which the Broker Services agent may lack.

Broker refers to a person with an own agenda of giving Santam this high value opportunity. It may be that the client wants to move to another insurer due to a bad service or claim experience from the current insurer. The broker may be of the opinion that the client is paying too little. Knowing that if Santam is slightly more expensive, the broker can earn more commission if he/she can attract the customer successfully to Santam through Santam's brand, which includes extensive cover, excellent track record of claims payment, specialised cover, et cetera. Lastly, the broker may have no clear intention to move the policy from the current insurer, but by law he/she has to provide the client with alternatives during the renewal of the policy. Brokers very often keep this agenda hidden to Santam.

Even according to the systemic overview, it is evident that this is a synthesis of non-linear systems and relationships. The detail of this system's non-linearity will be further evident when completing the fifth step of the evaluation framework.

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5.2.4 Step 4: Develop multiple partial views

Table 5-4 below shows the most pertinent partial views for the stakeholders and the relationships as defined above.

Table 5-4: Multiple partial view model developed for Case study 2

	As a <role>	the <subject or role>	is/are viewed as	because
1	Client	uninsured asset owned by me	a risk to my wealth	should a loss be incurred the loss would be for my account.
2	Client	need to get insurance	urgent	I would like to minimise my exposure to risk during a period of no risk cover.
3	Client	insurance of the risk	complex	many products are offered by different insurers and the differences are not clear to me.
4	Client	Broker	partner in obtaining insurance cover	the broker has more knowledge about the different products than me and will advise me on the best insurance solution for my situation.
5	Client	most affordable and comprehensive proposal presented by the broker	the most likely cover to accept	it will give me peace of mind that my asset is covered comprehensively.
6	Broker	Insurers' ability to provide me with a timely proposal and comprehensive advise	one of the key contributors of placing the business with that insurer	the client is seeking risk cover and the first comprehensive cover offered to him at the correct price has a high likelihood of being accepted.
7	Broker	the trust I have in the insurer as well as their commitment to service	as key factor in placing the business with the insurer	the insurer is key in keeping my client happy and this is especially important for the VIP clients.
8	Broker	Clients	the reason for my income stream	I get paid commission on policies clients have placed through me.
9	Broker	relationship with the client	difficult to maintain	it takes time and requires effort to show commitment and to build trust.
10	Broker	comprehensiveness of risk cover	essential and worth enough attention	if comprehensive cover is given, the client assets will be reinstated within or exceeding expectation, should an event of loss occur.
11	Client	reinstatement of the assets after a loss event	key contributor of how the client view the insurer	the client expect the Insurer to reinstate the asset if all premiums are paid in full.

Part 5: Validating the evaluation framework

	As a <role>	the <subject or role>	is/are viewed as	because
12	Client	quality of the relationship between me and the broker	depending on my experience of the insurer during claims	the broker advised me on this insurer's product and the comprehensiveness of risk cover.
13	Broker	ability to provide comprehensive advise on risk cover	a dependency I have on the insurer	I want to be confident that I advise the client correctly in order to minimise possible disappointments with future claims.
14	Commercial Contact Centre	service given to the brokers	dependent on the ability, knowledge and commitment of the Local Sales Support	the Contact Centre has no or limited knowledge of the risk the broker has passed on to the Contact Centre to quote on.
15	Broker	discussion on risk cover and price	discussion with a single contact person	the discussion is complex and having it done with more than one person results in repetition and time wasting.
16	Underwriter in Risk Services	health of the risk pool	Risk Services' responsibility to maintain	a healthy risk pool results in profit which adds shareholder value.
17	Underwriter in Risk Services	control of pricing through a scientific pricing model	the mechanism used by non-underwriters to make underwriting decisions	the model provides a underwriting price.
18	Underwriter in Risk Services	limited mandates given to non-underwriters in Santam	a mechanism to control the type and value of risks send to Risk Services for expert underwriting	for certain types of risks and value of risks, the underwriters in Risk Services want to be responsible for producing the price and the conditions of cover.
19	Underwriter in Risk Services	centralisation regarding underwriting of complex risks	a mechanism to control profitability of these types of risks	underwriting is done centrally in a consistent and controlled manner.

Part 5: Validating the evaluation framework

5.2.5 Step 5: Develop a causal loop diagram for the systems identified in Step 2

Regarding the system as defined above, it is evident that such a system is filled with complexity. Developing causal loops may thus be challenging and therefore it may alleviate complexity by first considering smaller subsystems.

Firstly, the subsystem featuring the client should be considered:

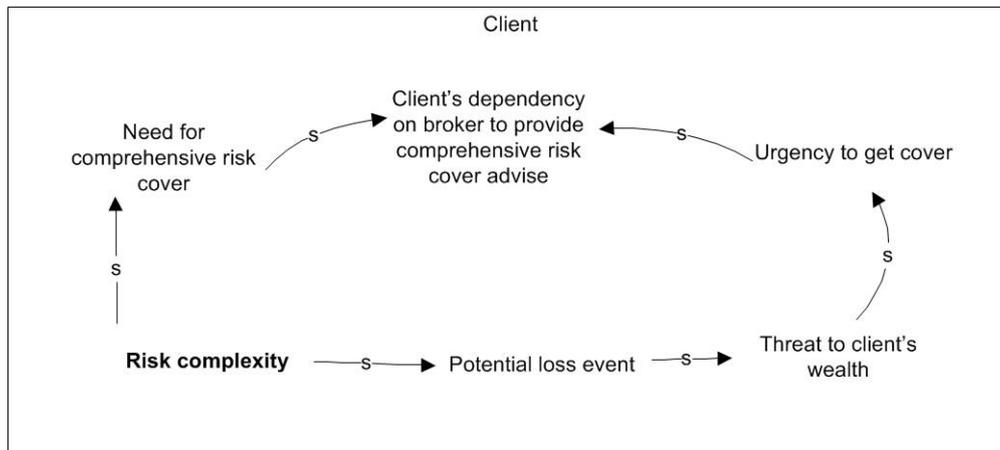


Figure 5-4: The client's perspective

The client owns a specific risk, which is associated with a certain level of complexity (view 1 and 3). Risk Complexity is indicated in bold in the figure. The higher the complexity of the risk, the higher the potential loss the client suffers as a result of an incident of loss. The higher the loss, the higher the threat becomes to the client's state of wealth (view 1). The urgency of obtaining comprehensive cover is increased with an increasing threat of loss of wealth (view 2).

Furthermore, the client has a need for comprehensive cover (view 4 and 5). This may be due to various factors. These may include the current premium paid to the current insurer, facets of the risk that are not sufficiently covered through the current policy, or a deteriorating relationship with the current insurer, which create the need by the client to exchange insurers.

This need for comprehensive cover synthesised with the urgency to obtain cover, makes the client increasingly dependent on the broker to provide comprehensive advice on risk cover (view 4).

After it has been determined that the client is dependent on the comprehensive advice of the broker, the intermediated insurance system can be considered. This will be done through focusing on smaller subsystems at a time and incrementally broadening the boundaries of the system until properties and events emerge, which increase the understanding of the problem at hand.

Part 5: Validating the evaluation framework

Subsystem 1

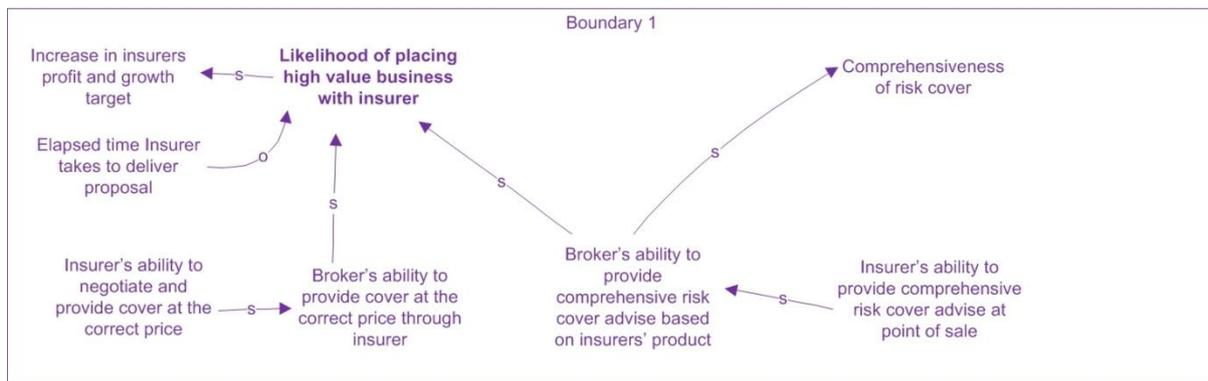


Figure 5-5: One of the perspectives of the broker

The focus of this subsystem is for the broker to advise the client on the short-term insurance product that will suit the clients' risk cover needs and budget the best. Thus, the likelihood of the broker placing the business with an insurer (indicated in bold) depends on the broker's ability to provide comprehensive advice on risk cover based on the insurer's product, as well as the broker's ability to provide cover at the correct price (view 5, 6). As these two factors increase, so does the likelihood of the broker placing the business with the insurer.

There are several other factors that also affect the likelihood that the business will be placed with a particular insurer. For example, the time the insurer takes to respond to the broker's request for a quote (view 2,6), could impact on the placement. The longer a particular insurer takes, the more time other insurers have to submit their proposals. The quality of the relationship between the broker and the insurer also plays a role. The higher the quality of such a relationship, the higher the propensity of the broker to place the business with the insurer (view 7). Lastly, the client's perception of the insurer's brand also plays a role. If the insurer carries a strong brand through a reputation of willingness to pay claims and of the ease of doing business, the more likely client will favour that insurer's proposal above the other proposals. However, in terms of the focus of this case study these factors will not be considered.

No concrete data has yet emerged out of this subsystem, which is enough evidence to reject the Null Hypothesis. The root cause of the underperforming high value process is also not yet understood. In light of this, a slightly larger subsystem will be considered.

Part 5: Validating the evaluation framework

Subsystem 2

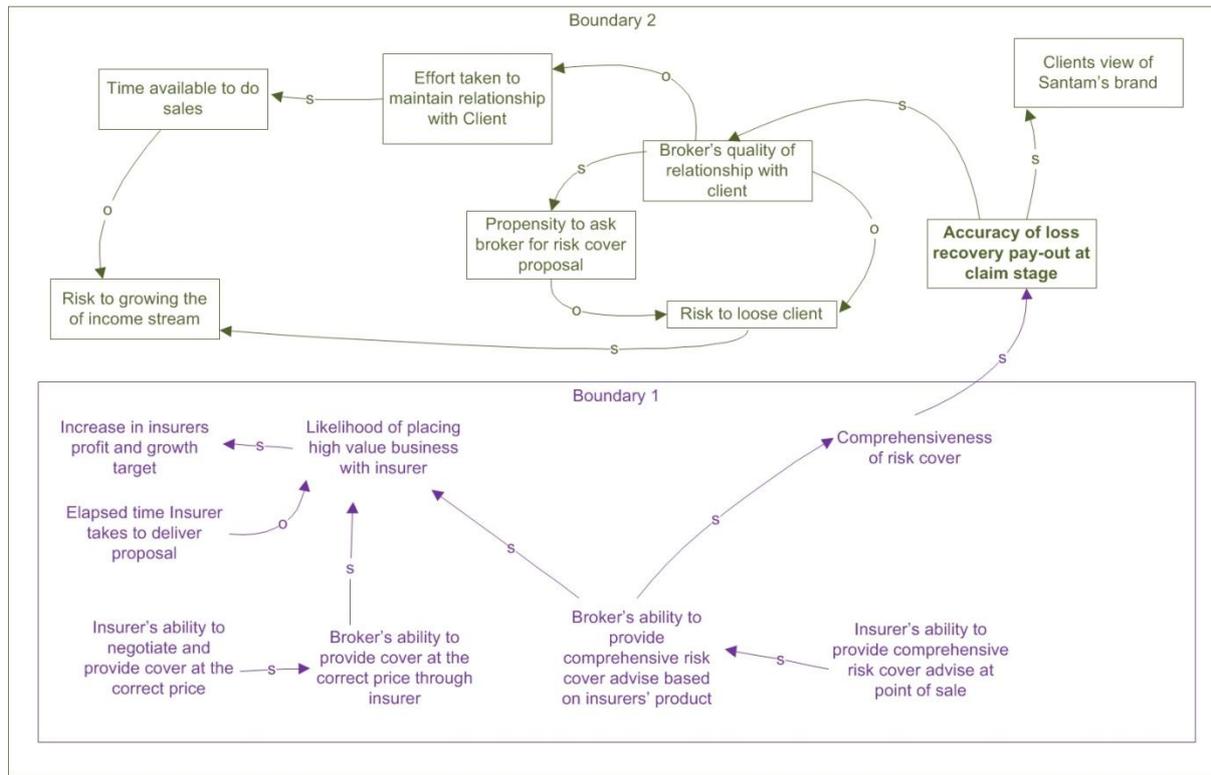


Figure 5-6: Another perspective of the broker

The focus of this subsystem is to understand why the broker is determined to provide the client with comprehensive risk cover.

As the comprehensiveness of the risk cover increases (as indicated in subsystem 1) a more accurate amount can be paid out in the event of a loss (view 10). This concept is indicated in bold. If this amount places the client in the same position or better as before the loss event – and given the claims service was provided within the client’s expectation – the client’s view of Santam’s brand becomes more positive (view 11). This also increases trust and satisfaction, which in turn leads to an increase in the quality of the relationship between the client and the broker (view 12). The higher the quality of the relationship the less effort it takes from the broker’s perspective to maintain the relationship, As a result, the broker has more time available to build new relationships and make more sales. By increasing the client base and selling more insurance, this leads to a higher income stream for the broker (view 8). To generate a sustainable income stream is one the broker’s main objectives.

However, if the amount paid out was considered inadequate by the client, this may decrease the quality of the relationship between the broker and client (view 12). If the relationship has deteriorated over time past a critical threshold, the client may pursue a relationship with another

Part 5: Validating the evaluation framework

broker and may pass on this high value opportunity to that broker. This increases the risk of the client leaving his current broker, which threatens the sustainability of the broker's income stream.

The systemic overview refers to the fact that the broker has an own agenda. The broker is elected by the client and by law has to provide quality financial advice. However, one of the major income streams for a broker is the commission earned on policy premiums. The broker is thus rewarded for selling risk cover at a high rate. However, if the broker allows this rate to go too high, the risk of losing the client increases. This again threatens a larger chunk of the broker's income stream. The broker thus has to maintain a fine balance between subjectivity of his/her own income against maintaining the client's trust and consequently the quality relationship.

After the subsystems focusing on the client and the broker has been covered, the slightly broader view can be considered.

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Subsystem 3

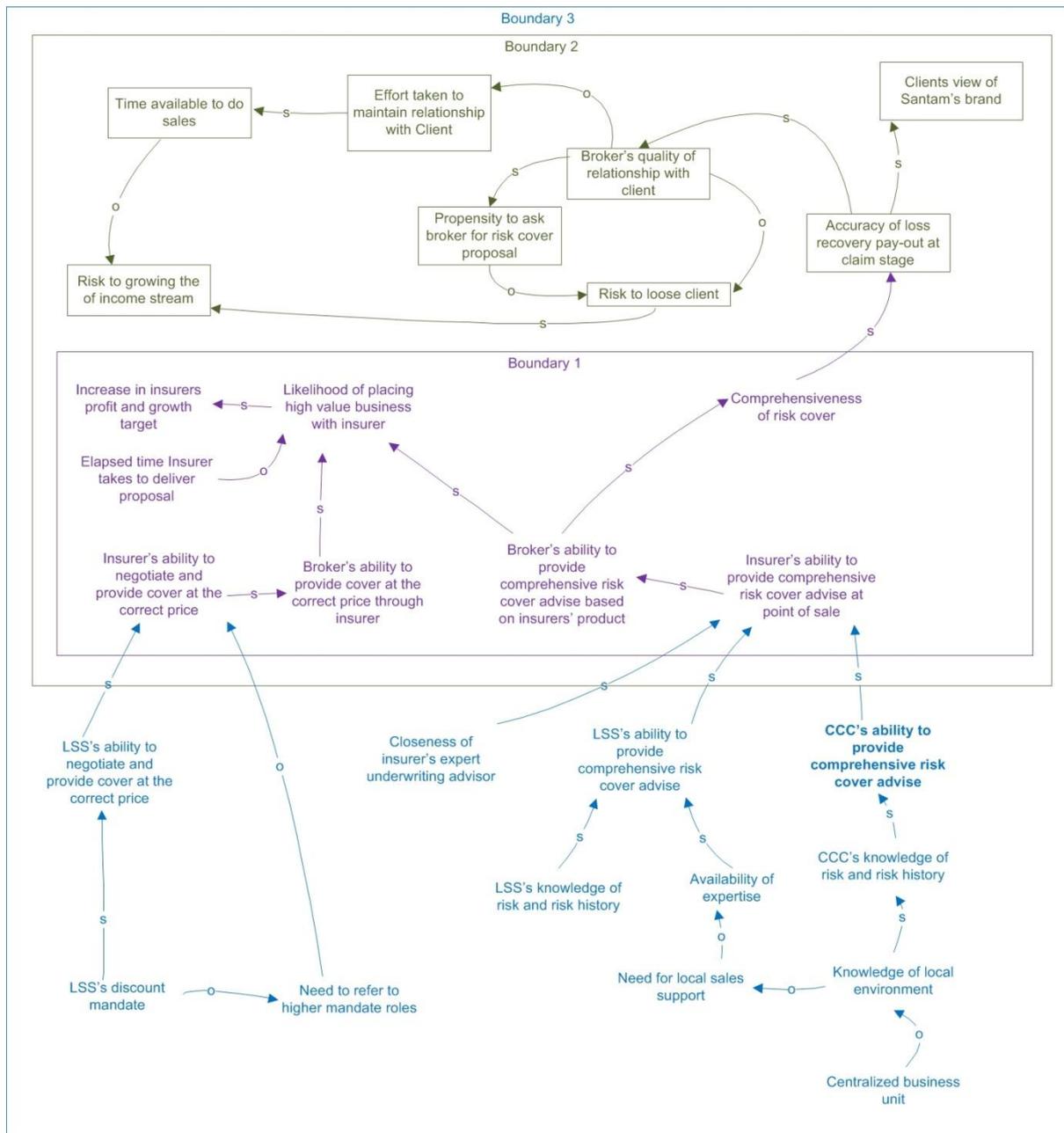


Figure 5-7: One of the perspectives of the insurer

This subsystem focuses on Santam’s ability to provide comprehensive advice on risk cover to the broker, as well as having the ability to negotiate and provide such cover at the correct price.

Firstly the focus should fall on the insurer’s ability to provide such advice on risk cover to the broker. The broker depends on the insurer’s support during the proposal stage. This includes the risk-cover advise since the broker wants to ensure a highly accurate underwriting to minimise possible disappointments in future should an incident of loss occur (view 13). The Commercial Contact Centre (in the figure abbreviated with CCC) is responsible for producing the proposal on the risk cover.

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Therefore when the broker only deals with the Contact Centre, a systemic problem emerges. From the broker's perspective, Santam's ability to provide comprehensive advice on risk cover is decreased by the Centre's actual inability to provide the required advice (indicated in bold). The Contact Centre's ability is limited due to a lack of knowledge of this specific clients' risk and the history of this particular risk. Such limited knowledge flows from the limited view of the client's risk and the Contact Centre's insight into the environment of which the risk forms a part. This limited knowledge is because the Contact Centre is a centralised business unit, which potentially is geographically removed from the broker's environment and more specifically from the environment of the risk.

This shortcoming was recognised after the establishment of the Contact Centre. Therefore the organisation identified the need to have access to local knowledge – this business role is called Local Sales Support. Thus the less the knowledge the Contact Centre has of the local environment, the higher the need for Local Sales Support (view 14). The higher Local Sales Supports' knowledge of the risk and the risk history, the higher this unit's ability to provide comprehensive advice on risk cover. Therefore the broker perceives Santam's ability to be higher. However, the Local Sales Support has a given level of expertise and the more the Contact Centre depends on them, the less available these resources become. This then decreases the ability to provide risk-cover advice, and consequently the broker will perceive Santam's ability to be lower. Irrespective of the ability, the broker needs contact with an insurer's expert underwriting advisor, in order to provide comprehensive advice on risk cover to the client.

A similar pattern is visible when it comes to price negotiation. Even if the broker is satisfied with the amount of advice on risk cover he/she received the price of the cover is potentially still an obstacle in placing the business with Santam. Having only the price to negotiate, the broker needs agility in the decision-making. Seeing that it is the function of the Local Sales Support to provide the underwriting advice, the broker wants to discuss the price with the same person and potentially even in the same meeting (view 15). The Local Sales Support person is limited by his/her mandate to give discount on the risk cover. The lesser the Local Sales Support person's mandate is to grant discounts, the less negotiation is possible between the broker and Local Sales Support. As the mandates decreases, and thus the ability to negotiate on the price as well, the need to refer the proposal to roles with higher mandates becomes more necessary.

This leads to an even broader subsystem, which focuses on partial reasons for having Contact Centres centralised and mandates of Contact Centre staff reduced.

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Subsystem 4

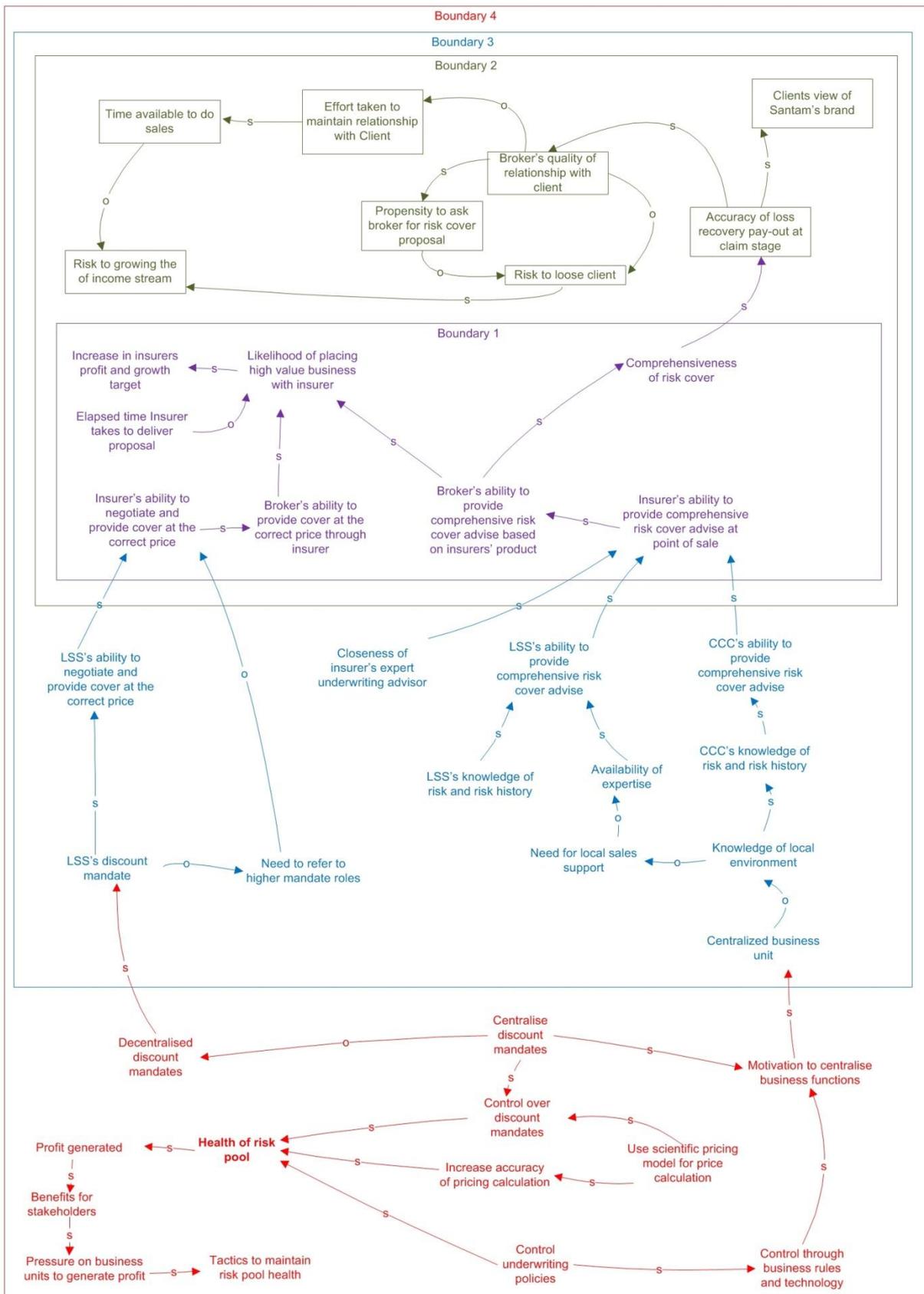


Figure 5-8: Another perspective of the insurer

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The main actor in this subsystem is Risk Services, that also holds the highest underwriting and discount mandates in the organisation. The main objective of Risk Services is to maintain a healthy risk pool (view 16) and this concept is indicated in bold. The health of the risk pool is increased through an increase in the accuracy of the pricing calculation, an increase in control over discount mandates, as well as an increase in control over underwriting policies (view 17). The accuracy of price calculation refers to the ability to assess the risk accurately and translating that risk to risk cover, which is associated to a monthly premium. The more there is known about the risk, and the higher the comprehensiveness of the pricing model, the more accurate the calculated premium will be.

Discounts mandates refer to the safe tolerance in the contracted premium. The higher the accuracy of the risk premium, the smaller the tolerance will be in the premium. Therefore the allowable discount that can be given becomes smaller. Underwriting policies refer to those risk types that may be underwritten and specifies the upper limit of the insured amount. Lower skilled underwriters may not underwrite very complex risks or risks with a high insured amount. This function would be out of their mandate and such cases would need referral to higher skilled underwriters, who has a mandate suitable for the risk to be underwritten (view 18).

Against this background, firstly the effect of controlling underwriting policies should be considered (see the bottom of the diagram in **Figure 5-8**). Underwriting policies are essentially business rules that govern underwriting. For products with a high volume many of these rules are embedded in technology solutions to enforce those underwriting policies when compiling a proposal. For other products such rules are documented and adherence to these rules is audited reactively. The products with a high volume are typically quoted for by the Contact Centres. Having these technology solutions centralised has many benefits for Risk Services and the Contact Centres. In addition, increasing the control over the underwriting policies also increases the motivation to centralise the business functions that are responsible for the compilation of a proposal.

Referring to the diagram (**Figure 5-8**) above, the health of the risk pool is increased by an increase in the control over the underwriting of policies. Such an increase causes an increase in the control over the business rules and the technology solutions related to it. This control is increased if the business units applying these underwriting policies are centralised – which lead to an increase in the motivation to centralise (view 19). The motivation to centralise the Contact Centres gained the stage of critical mass, which led to the actual centralisation of these Centres in 2012. Following this path on the diagram (**Figure 5-8**), partly explains how Santam reached the situation where there is a lack of knowledge about national risk environments.

At this stage the control needed over the discount mandates should be discussed. The price of the products is increasingly calculated more accurately through an ever evolving scientific pricing model. Therefore the allowable discounts on the quoted premium in relation should decrease. Over years the distribution channel became accustomed to high discounts and believes they still need such discounts in order to close a deal. However, allowing discounts that are larger than the tolerance, undermines the precision of the calculated premium. And this eventually threatens the health of the risk pool and naturally of the profit. In order to control more accurately the amount of discount granted on a policy, high discount mandates are centralised. Only the very experienced underwriters enjoy such a discount mandate. An increase in the centralisation logically implies a decrease in the decentralisation of high discount mandates. This means the majority of the decentralised distribution channel in this instance has smaller discount mandates. This includes the Local Sales Support of which the mandate limits their ability to negotiate price at point of sale. This situation is perceived by the broker as an indication that the insurer is not able to negotiate the price.

Keeping this information in mind, the study returns to the problem under consideration. The Contact Centre developed a focused acquisition process for high value opportunities in support of an increase in profitability. This was less successful than anticipated, due to the centralisation of underwriting expertise and of high discount mandates. Risk Services contributed to the motivation for centralisation, in support of their goal of maintaining a healthy risk pool to support profitability. Both organisational units has the supra-goal of profitability, however they have conflicting strategies in achieving this goal.

5.2.6 Step 6: Determining the outcome of the hypothesis testing

In the light of the above information enough evidence exists to reject the Null Hypothesis.

An acquisition process focused on high value opportunities requires agility at the point of sale with regard to underwriting support and price negotiation. The participants of this focused acquisition process does not have the mandate to negotiate the price vigorously. They are partly enabled through a decentralised model to support the broker, but have limited capacity once the volume of requests increases. Thus by countering the Null Hypothesis, not all processes, resources and technological facets of the organisation are in support of the focused high value acquisition process.

5.2.7 Conclusion of Case study 2

Referring back to **Table 5-3**, the integral framework that was developed for the acquisition process focused on high value segment currently can be updated. The Contributions section lists the Contact Centre's ability to negotiate price and risk cover. It is clear that if this ability exists in the Local Sales Support role, this needs to be evaluated and extended in order to fulfil the demand of the broker within the context of the high value acquisition process.

If the evaluation process as recommended by this study was followed during the design of the focused acquisition process the effect of centralisation, limited mandates and lack in local support on the effectiveness of the process would have been visible.

5.3 Case study 3: Unveiling the barriers to cross-selling between Santam and Niche business units.

Every year several different growth strategies are defined to achieve growth and maximise profit. In the early stages of 2010 it was identified that there is a low amount of cross-selling between the Niche insurance business units and the business unit that were responsible for personal and commercial lines insurance. A project was initiated to investigate the reasons for this lack in cross-selling. The researcher played a leading role in the investigation. The challenges uncovered during that project partly led to the definition of this research study.

Although the challenges to cross-selling between the said departments currently are well known and understood, the evaluation framework as proposed in the present study is used in this case study to assess whether the same conclusions would emerge as those discovered by the project investigators in 2010. The rationale is that the 2010 project came to conclusions, and subsequently, corrective actions were defined based on those conclusions. Those corrective actions improved the cross-selling situation and as a result the project was considered successful. If the evaluation framework as discussed in the present study can reach the same conclusions, it would thus be confirmed that the framework can take inputs and transform them to the correct conclusions. This would also confirm the postulate that the evaluation framework is a tool that can be applied in investigations of this type.

It is important that the reader has some level of understanding of the cross-selling landscape and of the reasons why a policyholder may have several policies from potentially different insurers. Thus, before the discussion on the case study is started, background is given on the cross-selling

landscape. Thereafter the 2010 cross-selling project is discussed briefly, after which the case study follows.

5.3.1 Background on why policyholders may have several simultaneous in-force policies across different insurers or divisions

The following example can explain the relationship between personal and commercial lines insurance and niche insurance. Before the case study is explored it is important to understand the basics of the relationships between these units.

The following risks are typically owned by a grape farmer: agricultural equipment such as tractors, irrigation equipment and buildings in the form of sheds and barns are considered insurable assets; the vineyards and – during season – the grapes. An aircraft for crop-spraying that is parked in a hangar is also a possibility. Usually there are many more insurable assets, but to explain the concept, only these are considered –as they also are depicted in **Figure 5-9** below.

Having only these items insured through Santam will result in multiple policies from diverse departments and business units.

- The agricultural equipment as well as the vineyards (without the grapes) will be covered by a Santam Agricultural Policy, which will be issued by the Santam's Commercial Business unit.
- The crop-sprayer aircraft will be covered by an aviation policy issued by the Santam's Aviation Niche business unit.
- The aircraft hangar will be covered by the Santam Commercial Policy, which is also issued by Santam's Commercial Business unit.
- The grapes – when in season – will be covered by a Crop Policy issued by a specialist Crop business unit.

Insuring only these listed assets will thus result in four different policies issued by three different business units in Santam. Risk cover with such a composition is complex and policyholders typically depend on brokers to source the correct insurance product and to negotiate reasonable terms on their behalf.

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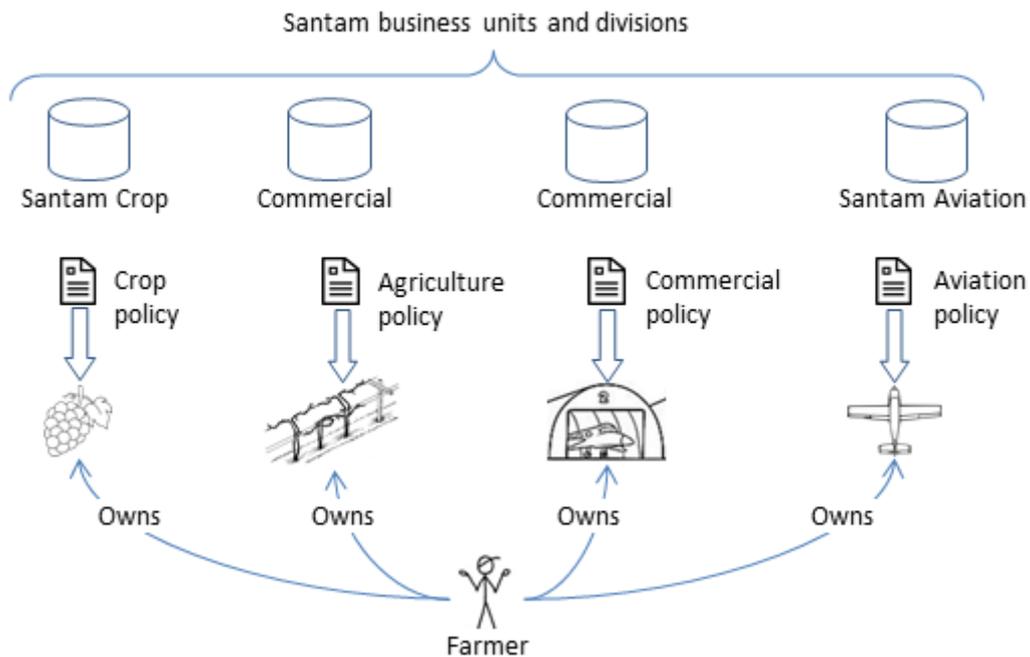


Figure 5-9: A farmer following different policies to cover diverse asset types

From the broker's perspective, handling such a client requires interaction with many different insurance divisions and even with different insurers. Each insurer or specialist division may have an Account Manager or Relationship Manager with specific product knowledge who is responsible for supporting the broker with underwriting knowledge, product support and quotations. Thus, the broker who is elected to represent the client depicted above will have policies across the four disciplines: Commercial, Agriculture, Aviation and Crop. This total portfolio is naturally stratified by risk-type and the broker may refer to his Commercial portfolio, Agriculture portfolio and so forth. Unavoidably these portfolios will have different sizes in terms of policy count and premium value. Typically a broker will have a dominant portfolio for a specific risk-type or product, for example a Personal Lines and Commercial Lines portfolio. At some point the broker either pursued clients with different asset profiles, or the broker's existing clients grew in wealth and he was led by this growth to include such risk-types in his offering. Whichever way, the current situation is that the broker has different portfolios and therefore depends for support on diverse insurance providers.

It was exactly this need in support that Santam was after. Santam's different business units identified the above situation and the question was posed whether a broker whose dominant portfolio is insured through Santam will approach Santam for support and opportunities in the niche insurance market.

5.3.2 The 2010 Cross-selling project and conclusions

5.3.2.1 Project background

The approach to the 2010 investigation of the barriers to cross-selling was centred around workshops and interviews in which several different groups of key individuals from the divisions were involved. The following five divisions were involved in the Cross-selling Investigation Project: Broker Services responsible for personal and commercial lines insurance, AMUA for marine related insurance, CEU for construction and engineering-related insurance and Santam Aviation and Santam Transport responsible for aviation and transport-related insurance products. The individuals interviewed in each of these divisions were senior executives, heads of departments or account managers.

The rationale behind involving this hierarchy of roles was to gain insight into the different views and challenges as to why cross-selling was not occurring successfully. Two channels were used to gather the respondents' views: small group interviews and workshop-style gatherings. The latter was the main channel and stretched over several days in groups as large as 18 participants. During the workshops innovation and techniques of business management, such as The World Café method (World Café Method n.d.) and Affinity Diagrams (also known as the KJ Method (Scupin 1997)) were used to elicit issues and to find relationships between issues (see Appendix E for an explanation of the methodology). Once grouped and common themes were determined, issues were prioritised and discussed in detail. After the issues were understood in detail, actions were identified and designed to correct or improve the situation.

5.3.2.2 Project conclusions and actions taken

Table 5-5 below lists fourteen issues identified and prioritised. Those marked with a * highlights the top three issues discussed during each of the sessions. Later on in the case study these issues will be referred to by the number listed in this table.

Five actions were defined to correct or at least improve the status quo of these issues. These actions are listed in **Table 5-6** below.

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Table 5-5: List of issues identified during the 2010 Cross-selling Project

#	Issue topic	# of refs made	
		Session 1	Session 2
1	Broker attitude issues	2	
2	Broker's client profile not visible to [all of] Santam	2	
3*	Broker's portfolio not visible across all business units within Santam	7	4
4	Capacity and time constraints	5	1
5*	Incognisance and misalignment of SBU strategies and actions Internal and broker related information sharing needed	4	5
6	Internal misalignment between SBU's regarding broker relationship, potential and growth	3	1
7	Lack of broker training; need for product knowledge and a product reference guide	5	
8*	Lack of internal product and SBU knowledge and relationship	11	3
9	Insufficient tracking of leads ; follow-up process and feedback	1	
10	Lack of SBU and product awareness	2	
11*	Lack of the correct rewards and measures for recognition driving desired outcomes	10	1
12	Need for market and broker research as well as potential	4	
13	Operational and process issues	4	2
14	Technical/system shortcomings	1	
	Grand Total	61	17

Table 5-6: Proposed corrective and improvement actions

Category of action	Corrective actions
Expanded Santam Value Proposition Awareness Campaign	- Targeted marketing of product for the purpose of cross-selling
Specialist Product Training and Awareness	- Information sharing sessions - Develop Yellow book and include in formal broker training
Relationship building	- Information sharing sessions - Cross business unit attendance of Operational Meetings (internal) and Broker Forums (external) (and social)
Measurable targets	- Targeted selling and custom recognition and rewards report - Develop Management Information report for measuring cross-selling for targeted brokers
Competition	- Targeted selling and custom recognition, as well as rewards report - Develop relationship training; run prized quiz

5.3.2.3 *Success of the actions*

Several initiatives were launched that catered for the corrective actions listed in **Table 5-6**. A list of the initiatives is provided below.

- i. In 2011 a competition was launched to promote cross-selling between Crop Insurance and Broker Services. Relationship Managers from both business units joined forces to increase the growth of both units. Targets were set and substantial prizes were awarded for meeting these targets.
- ii. In 2012 an initiative called 100%Y was launched (short for 100% Yellow). This initiative promoted the philosophy that all divisions form part of Santam and should have one common, overall goal – irrespective of each division’s explicit goal. This initiative extended into 2013 and touches on many aspects of promoting cross-selling:
 - a. Key Performance Areas for the Relationship Managers from Broker Services, as well as those from the Niche business unit were changed to include each other’s growth figures. For example: Broker Service’s overall growth target is made up of 66% of their units’ growth and 34% of growth from the Niche business unit. Likewise for Niche (66% of own and 34% from Broker Services).
 - b. It was arranged for Relationship Managers from the different business units to attend the other units’ monthly operational management meeting. This nurtured an awareness of the other business unit’s commercial environment, enhanced the relationship between Relationship Managers and cultivated inter-unit trust. Possible growth opportunities and strategies were also discussed during these meetings.
 - c. The Niche business units compiled a product-information pack to assist the Relationship Managers from Broker Services with product-knowledge on the available products.
 - d. Broker Services was given the opportunity to attend the Specialist Business Broker Training and Awareness Expo, as well as to nominate brokers to attend the Expo.

In the context of the present study, it is not necessary to provide additional detail on any of these or other initiatives, which was designed to promote cross-selling. It is sufficient to mention the initiatives. The 2010 Cross-selling Project has launched a journey in which the different business units in Santam became aware of combined growth opportunities, promoted each other and began to work towards a common goal.

5.3.3 The case study: discover issues 3 and 11

It is not feasible in the context of the present study and of the following case study to develop systemic models to uncover all of the issues listed in **Table 5-5** above. The case study below thus focuses only on discovering two of the issues listed in the table. These two issues are Issue 3: *Broker's portfolio not visible across all business units throughout Santam* and Issue 11: *Lack of the correct rewards and measures of recognition driving desired outcomes*.

5.3.3.1 Step 1: Define the Null Hypothesis

All facets of the organisation, i.e. people, process and technology are in full support of cross-selling and can enable cross-selling initiatives.

5.3.3.2 Step 2: Define the collective objective

Santam organisational units and affiliates will nurture reciprocal referral of opportunities in order to enhance the achievement of growth targets.

5.3.3.3 Step 3: Define a systemic overview model

Below is a model providing a systemic overview of the environment. The system boundaries are defined as the intermediated insurance provider and client. Thus the system includes the insurer, the broker and the client.

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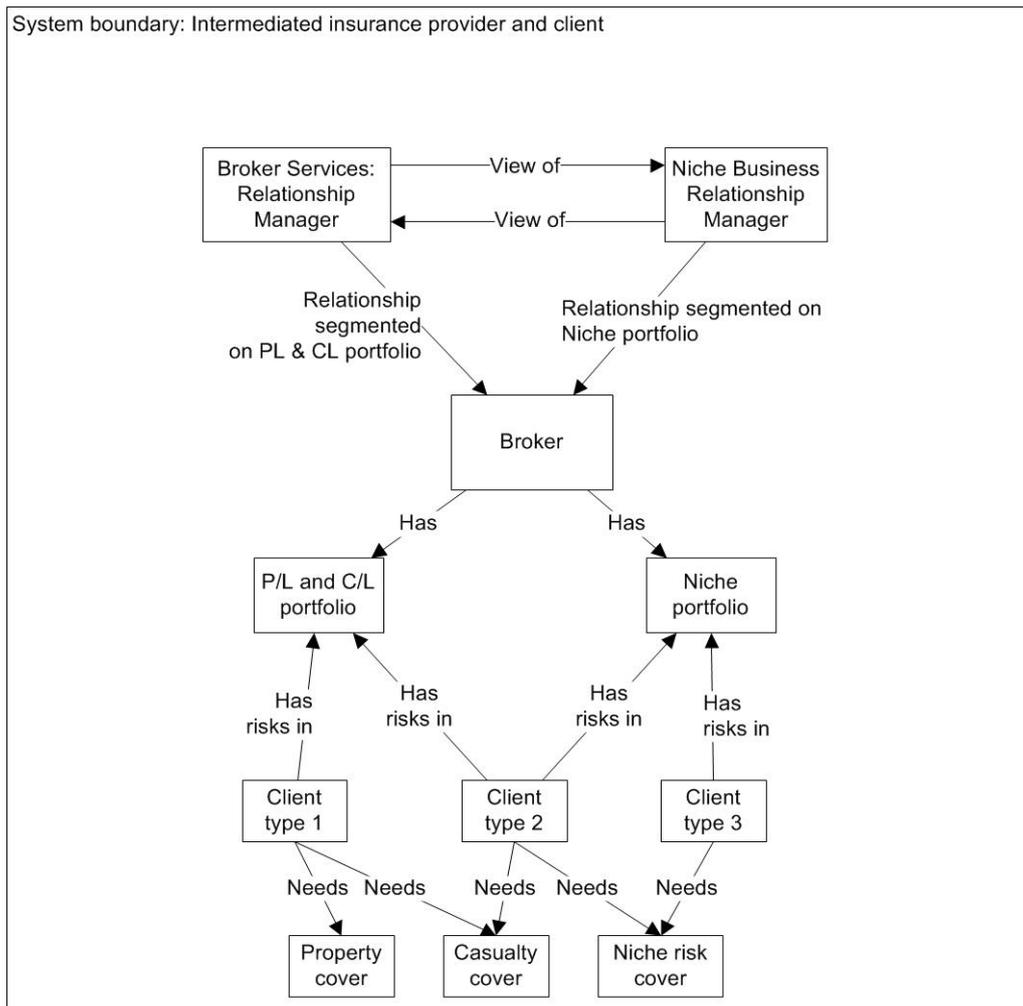


Figure 5-10: Systemic Overview for Case Study 3

The entities to which this model refers are:

Broker Services: Relationship Manager – the person responsible for maintaining a healthy relationship with the broker, in order to provoke opportunities for Personal (PL) and Commercial (CL) Insurance growth.

Niche: Relationship Manager - the person responsible for maintaining a healthy relationship with the broker, in order to provoke Niche growth opportunities.

Broker – the intermediary acting on behalf of the client. The broker has stratified his/her portfolios in Personal and Commercial Lines and in a Niche portfolio.

Client Type 1 – a client in need of risk cover. In this case study Type 1 refers to property or casualty cover, which are both catered for by Personal and Commercial insurance products offered by Broker Services.

Client Type 2 – a client in need of risk cover. Type 2 refers to risk cover through personal or commercial products, as well as cover provided through Niche insurer. This client may also be the

Part 5: Validating the evaluation framework

owner of the crop-sprayer aircraft parked in a hangar, and who hence have an Aviation and Commercial Policy.

Client Type 3 – a client in need of risk cover. This type refers to a client owning assets that falls within the niche category only.

5.3.3.4 Step 4: Develop multiple partial views

Once the systemic overview model is defined, the user stories for multiple partial views need to be developed. See **Table 5-7** for the most pertinent multiple partial views of the entities and relationships as defined in the overview.

Some common themes have emerged from these partial views.

- i. Broker Services as well the Niche business units have a target of developing and maintaining a healthy relationship with the broker and thus view the broker as their business partner (views 1, 8).
- ii. Both divisions have limited resource capacity. Therefore they require a mechanism to guide them on the amount of time and effort need to be spent on the relationship with the broker in order to develop and maintain such a relationship (views 2, 3, 9, 10)
- iii. Both divisions use the size, quality and potential of the broker's portfolio to serve as such a mechanism (views 4, 11).

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Table 5-7: Multiple partial view model for Case study 3

	As a <role>	the <subject or role>	is/are viewed as	because
1	Relationship Manager from Broker Services	broker	a business partner	he/she is the primary source of new business opportunities.
2	Relationship Manager from Broker Services	relationship with the broker	difficult to maintain	it takes time and effort and there are many such relationships to maintain.
3	Relationship Manager from Broker Services	relationship with the broker	a relationship that must be segmented	I have to spend the right amount of time on the correct relationship.
4	Relationship Manager from Broker Services	size, quality and potential of the Broker's P/L and C/L portfolio	the key differentiator during segmenting the broker	the size, quality and potential contributes to the measurement of Broker Services' targets and performance.
5	Relationship Manager from Broker Services	the broker's clients	of different asset and risk profiles	they can have one or many risks pertaining to P/L, C/L or Niche lines of business.
6	Relationship Manager from Broker Services	Niche underwriters	a unit with whom I share the Santam brand	their business is partly of fully owned by Santam.
7	Relationship Manager from Broker Services	Niche underwriters	a unit that may influence my relationship with my broker	they may treat the broker differently than what I do.
8	Niche business owner	broker	a business partner	he/she are the primary source of new business opportunities.
9	Niche business owner	relationship with the broker	difficult to maintain	it takes time and effort and there are many such relationships to maintain.
10	Niche business owner	relationship with the broker	a relationship that must be segmented	I have to spend the right amount of time on the correct relationship.

Part 5: Validating the evaluation framework

	As a <role>	the <subject or role>	is/are viewed as	because
11	Niche business owner	the size, quality and potential of the Broker's Niche portfolio	the key differentiator during segmenting the broker	these contribute to the Niche Business' targets and measurements.
12	Niche business owner	the broker's clients	different assets and risk profiles	they can have one or many risks regarding P/L, C/L or Niche lines of business.
13	Niche business owner	Broker Services division	a unit with whom I share the Santam brand	Santam owns part of all of our business.
14	Niche business owner	Broker Services division	a unit that may influence my relationship with my broker	they may treat the broker differently than what I do.
15	Client	the broker	a body of knowledge of short-term insurance	they know and understand the different products available on the market for the various risk-covers needed.
16	Client	the risk cover I need	a complex concern	I don't fully understand the risk exposure and underwriting rules and conditions.
17	Client	the insurer	an institution that sells risk- cover	they understand underwriting and has a large pool of profitable risks.
18	Client	the insurer	an institution that pays money in case of an incident of loss	of the in-force insurance contract between the policyholder and insurer as negotiated by the broker.
19	Broker	insurer	an institution that must support me by offering insurance to the client	every insurer's product is different and each insurer has account managers with a high degree of product knowledge.
20	Broker	relationship with the insurer	a key contributor to the decision whether business will be placed with the insurer	the client trusts the broker to suggest the best possible cover through an excellent product and a reliable insurer.

5.3.3.5 Step 5: Develop a causal loop diagram

Starting with these common themes the casual-loop diagram can be developed.

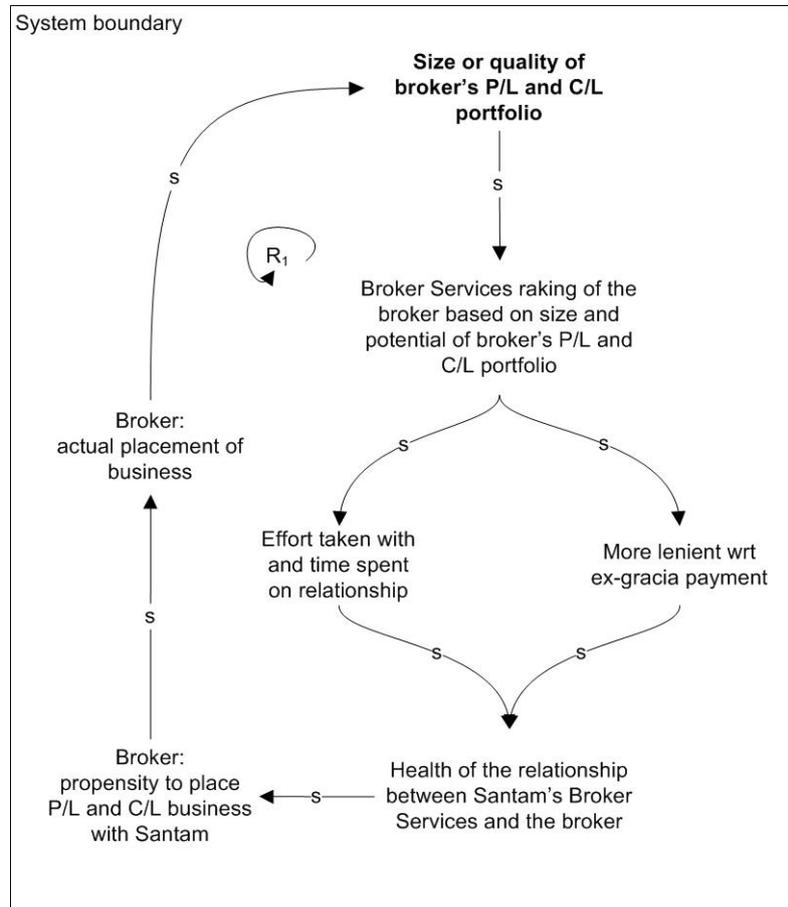


Figure 5-11: Partial causal loop diagram for Case study 3

First should be considered the health of the relationship between Santam's Broker Services division and the Broker.

Broker Services is responsible for personal and commercial insurance products and consequently their targets are based on these lines of business. Naturally their segmentation model uses the premium income that was sourced from the broker's portfolio for Personal and Commercial in-force policies. Based on Broker Services' partial views (view 4), the higher the size and/or quality of this portfolio, the higher the broker is ranked. This situation is indicated in bold at the top of the diagram in **Figure 5-11**.

A high ranking for the broker causes the Relationship Manager of Broker Services' to spend more time on the relationship with the broker and to allow more effort to support the broker (view 3).

Part 5: Validating the evaluation framework

Also, a high ranking causes Broker Services to be more lenient towards ex-gratia payments³ of claims. Both these activities, i.e. time and effort as well as more leniency towards the payment of the claim lead to an increasing health in the relationship with the broker. The broker experiences the partnership with Santam (view 1) because whenever he/she needs support he/she can count on the Relationship Manager of Broker Services' commitment for support.

Using the broker's partial views, a healthy relationship with the insurer increases the propensity of the broker to place business with Santam (view 20). This leads to an increase in the size of the portfolio which, eventually, makes for a more healthy relationship. This causes a positive reinforcing loop, indicated as R_1 on the diagram in **Figure 5-11**.

Also, as seen from the multiple partial views, the same pattern in causation is true for the Niche Relationship Manager. A large and high-quality portfolio leads to a high segmentation ranking, which in turn leads to more effort spent on the relationship and this results in a healthy relationship. (In Case Study 2, view 7 stated that the healthier the relationship the higher the propensity for the broker to place business with Santam, which leads to a larger portfolio. This forms a positive reinforcing loop).

Naturally, if the broker experiences a healthy relationship with Santam, the broker's view of Santam as an organisation and of Santam's brand increases, which will reinforce the positive loop even further. The complete causal loop diagram is listed in **Figure 5-12**. This causal loop shows the reinforcement loops experienced by Broker Services as they take care of the Personal and Commercial Lines policies. The same goes for the Niche business, as well as for the broker's view of Santam as an organisation that consists of these two business units.

³ An *ex-gratia* payment is a payment made in goodwill by the insurer in case of an incident of loss on a risk that is not covered by the policy contract.

Part 5: Validating the evaluation framework

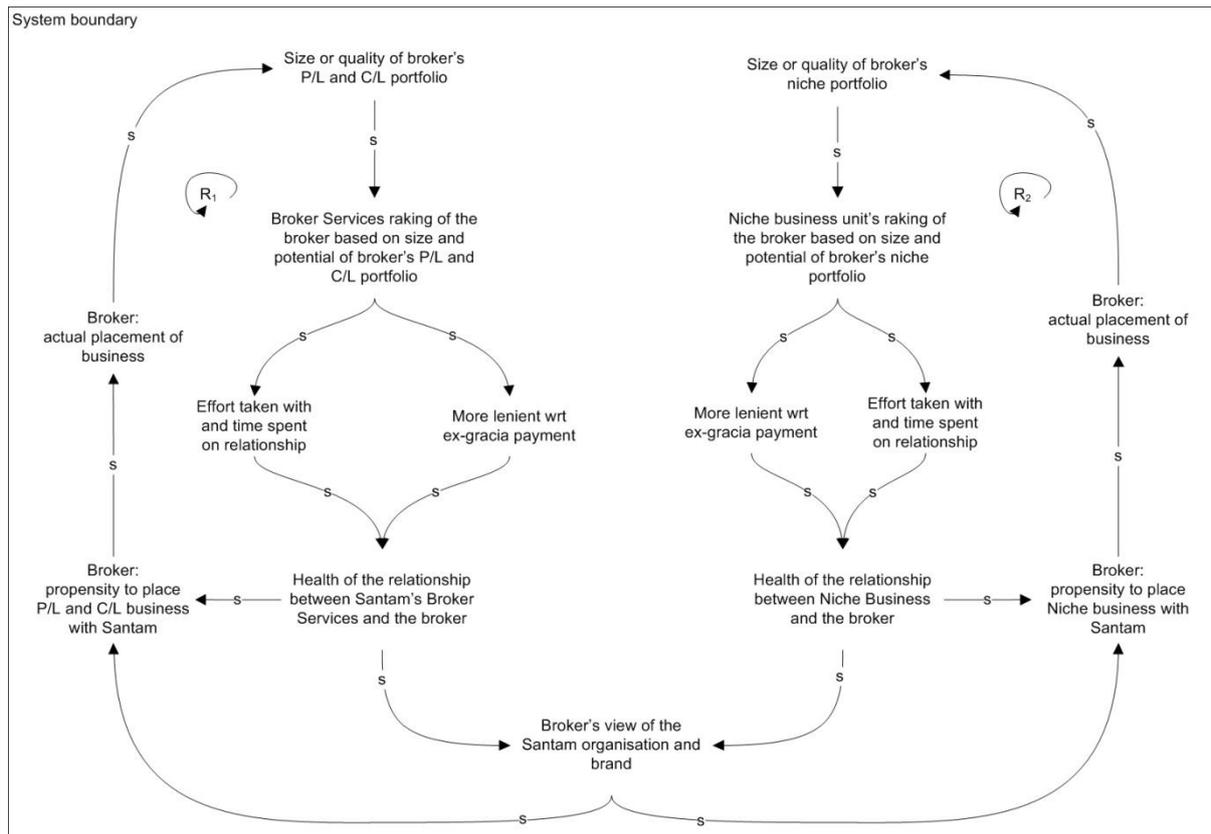


Figure 5-12: Full causal loop diagram for Case Study 3

As discussed in the section giving the background to this case study, in reality the broker's dominant portfolio will be larger than the other portfolios. For this scenario, it can be assumed that the broker's Personal and Commercial portfolio is large and healthy and the Niche portfolio is new and small. The causation as described above will establish a positive reinforcing loop between the size of the large portfolio and the health of the broker's relationship with the division supporting the large portfolio. However, for the scenario where the broker has only begin to build his/her Niche portfolio the broker will be segmented to such an extent that little time and effort will be invested to develop a relationship. When the broker experiences a struggling relationship with a division, the broker has a high propensity to place business with another insurer, who may be rendering him/her more support. Furthermore, from the broker's partial view (view 19), support from the insurer is important and the total level of support given by the insurer does influence the broker's view of the insurer in its entirety.

Thus, the manner in which the Broker Services and Niche business units do segment and treat the same broker, causes a conflict in how the broker's experience Santam. From the broker's perspective, the one division "walks the extra mile" and the other division is perceived as "not interested".

Part 5: Validating the evaluation framework

The following properties emerge from this conflicted relationship:

- i. Indirectly, the health of the relationship between the broker and insurer depends on how the business units do segment the broker.
- ii. A business unit should not aim at enhancing and strengthening their relationship with a broker, but rather at contributing to an overall healthy relationship between the broker and Santam as a whole.
- iii. The same broker may be ranked high by a particular business unit and low by another unit, which causes an inconsistent experience by the broker.
- iv. Segmentation of the broker by the business units occurs on portfolio level, i.e. the full value which the broker brings to the insurer is not considered, only the portfolio that is supported by the business unit doing the segmentation.

Initial conclusion

A preliminary conclusion could thus be that brokers should not be segmented on portfolio level, but on the broker's total value to the insurer across portfolios.

Thus partial views 4 and 11 will change to consider the broker's full portfolio (changes indicated in bold):

View 4:

AS A relationship manager from Broker Services,
 THE size, quality and potential of the broker's **full portfolio** is viewed as the key differentiator when segmenting the broker,
 BECAUSE the size and quality of the P/L and C/L portfolios contribute to the measurement of Broker Services' targets and performance.

View 11:

AS A Niche Business owner,
 THE size, quality and potential of the broker's **full portfolio** is viewed as the key differentiator when segmenting the broker,
 BECAUSE the size and quality of Niche portfolio contributes to the measurement of the Niche business units' targets and performance.

Taking these partial views into consideration, the systemic overview is adapted to each business unit when viewing the other's size of portfolio. Changes are indicated with bold lines in the following diagram.

Part 5: Validating the evaluation framework

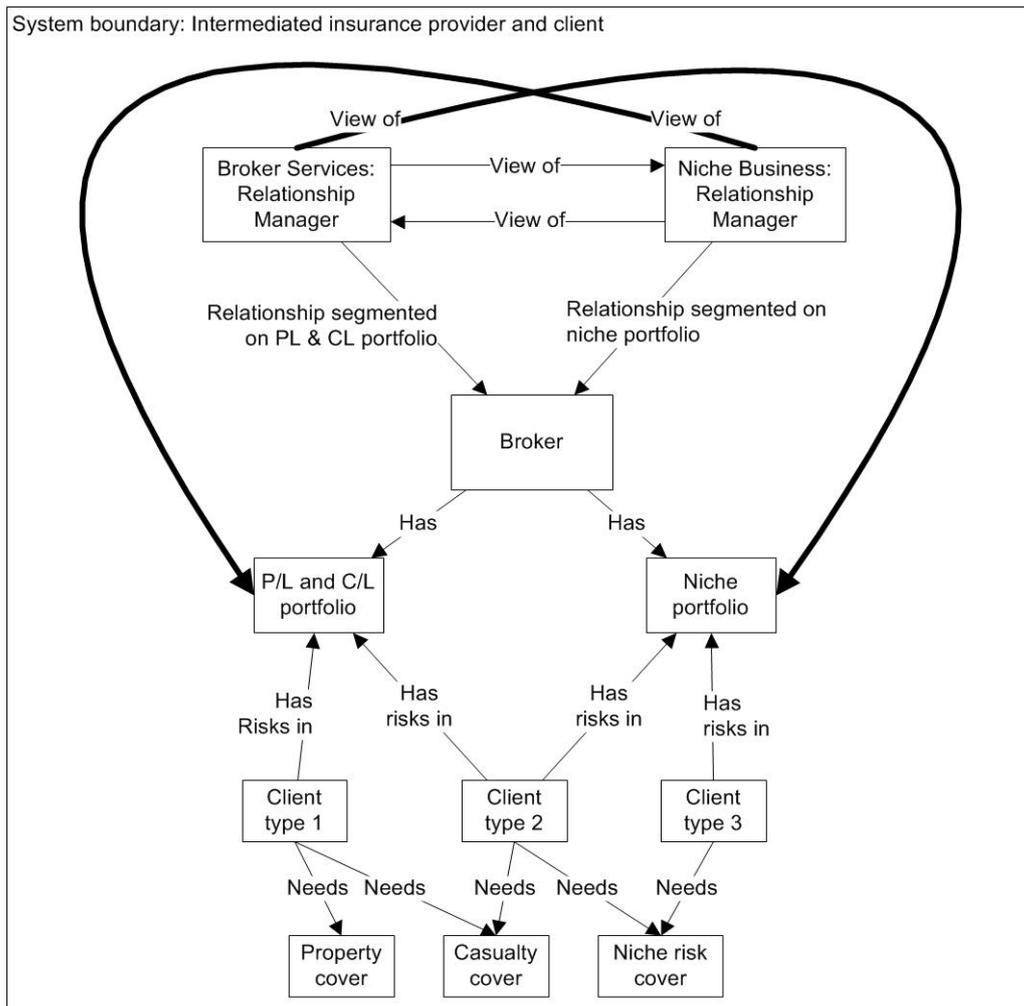


Figure 5-13: Updated Systemic Overview for Case Study 3

The casual-loop diagram also changes so that each business unit takes the broker’s full portfolio into consideration. Applying this causal loop prevents the incorrect segmenting of brokers and precludes the issues described above.

As was the case above, changes are highlighted in bold in **Figure 5-14** below.

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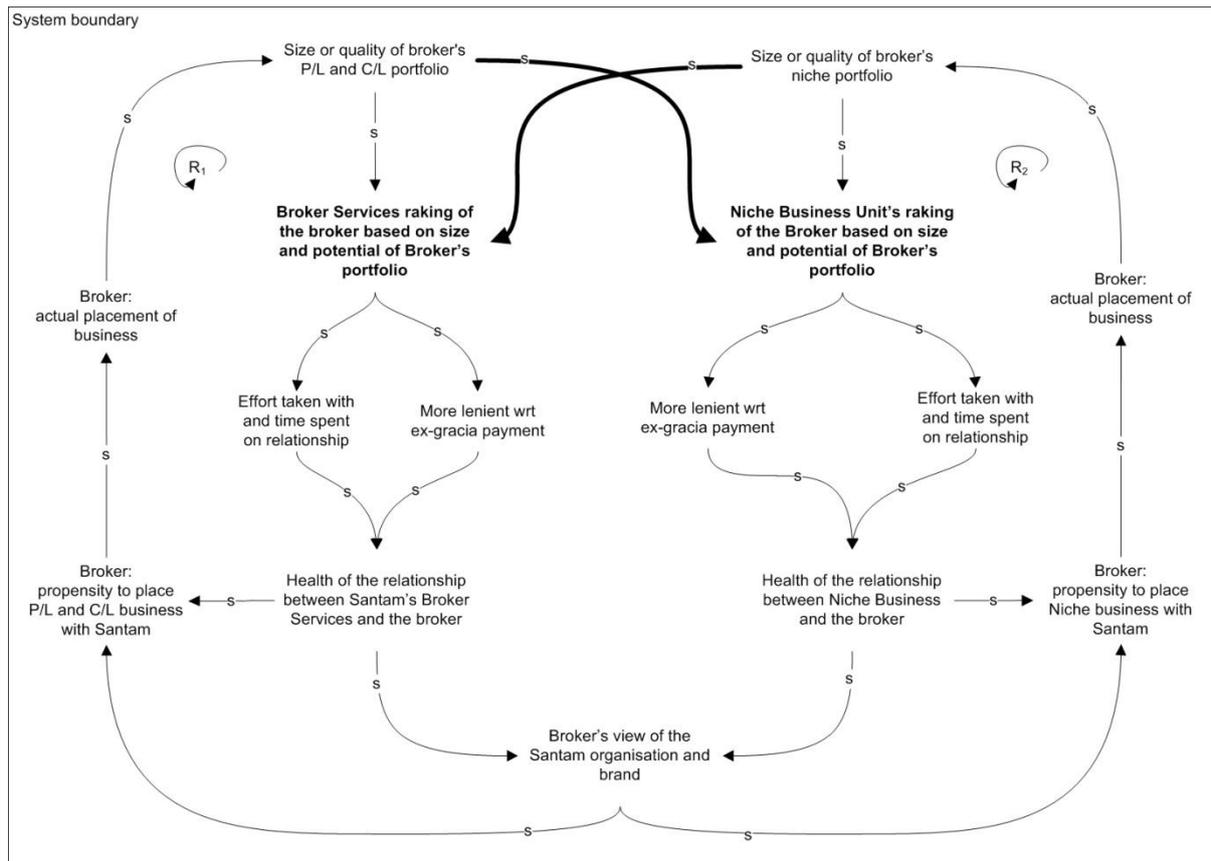


Figure 5-14: Updating causal loop diagram for Case study 3

At this point of the investigation sufficient evidence is gathered already to reject the Null Hypothesis. This hypothesis stated that all people, processes and technology are in full support of cross-selling and enable cross-selling initiatives. It can be seen by the causal loop diagram in **Figure 5-12** that this is not the case and that the missing relationships as indicated in **Figure 5-14** will help to enable cross-selling. At this point it is natural to ask why these divisions do not just begin to share data, to segment the broker's differently and to start cross-selling the products. To understand the answer to this question, a slightly broader view of the system will have to be investigated.

Broadening the system boundaries

Following a system's thinking approach one continually has to broaden the boundaries of the system under investigation to understand the causal relationships between elements. Thus far it has been discovered that it would be quite beneficial to the health of the relationship between the broker and Santam if the different business units segmented the broker on the size, quality and potential of the brokers' full portfolio, rather than on his/her individual portfolios. However, this is far from what was happening in reality at the time of this investigation. To understand the environment truly, one has to ask what is driving the different business units to segment only on the portfolio for which they are responsible.

Part 5: Validating the evaluation framework

There are similarities in behaviour between the Relationship Manager from Broker Services and the Niche business units, a well as the environment in which they operate. Thus for the sake of brevity, the investigation below focuses only on the system involving the Relationship Manager from Broker Services. The same patterns of causation are true for the Niche environments. In this sense should be considered: the systemic overview involving the Relationship Managers and the performance management systems, the fraternity of brokers who enjoy an existing relationship with Santam, as well as the fraternity of brokers that do not have such a relationship.

The systemic overview below indicates that Relationship Managers need to maintain existing relationships, develop new relationships, but are impeded by resource constraints. Their performance score thus impacts on their financial reward and this performance score is determined by a system and a target to which they have agreed beforehand.

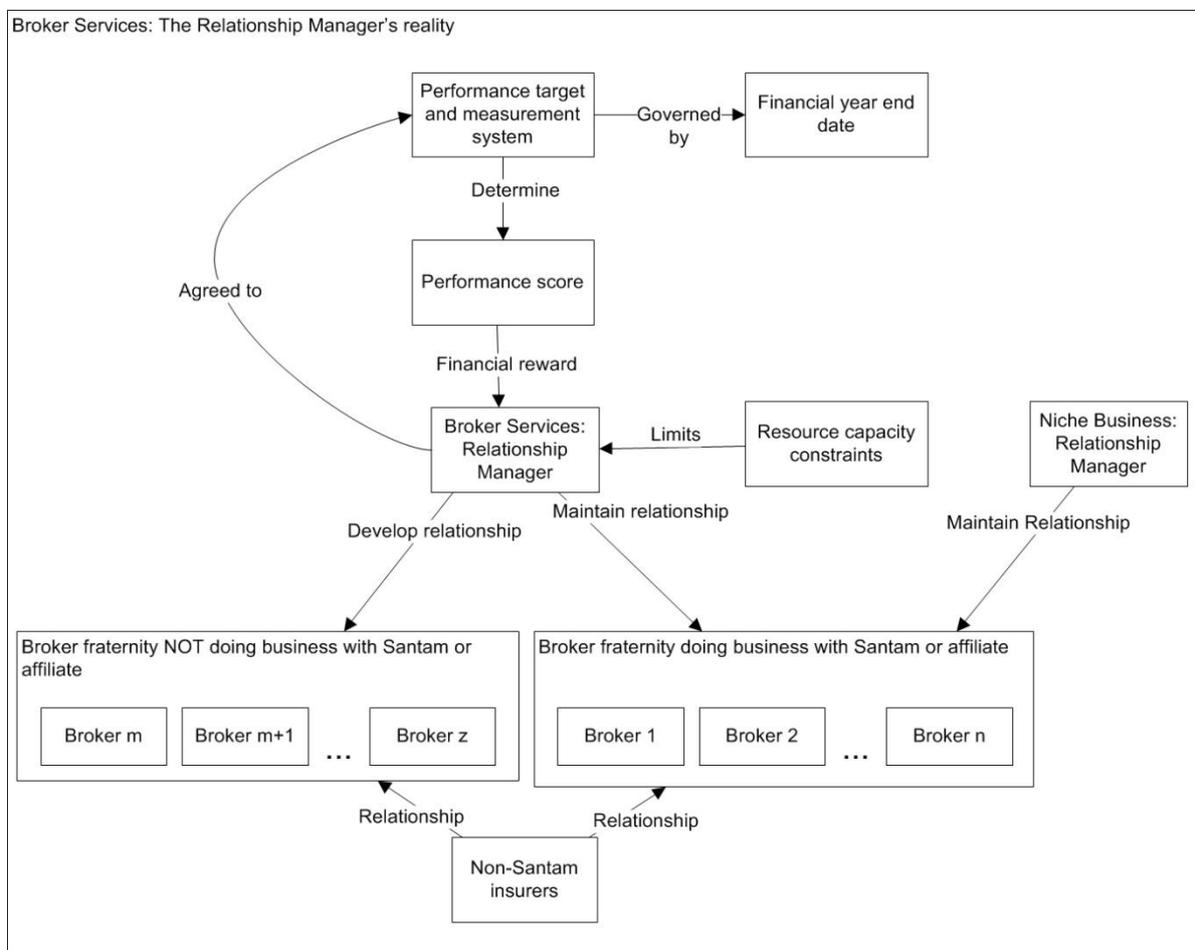


Figure 5-15: Systemic overview for Case study 3, Part 2: Broker Services' reality

The most pertinent partial views developed from the perspective of the relationship manager yields the following:

Part 5: Validating the evaluation framework

Table 5-8: Multiple partial view model for Case study 3, Part 2

	As a <role>	the <subject or role>	is/are viewed as	Because
1	Relationship Manager from Broker Services	financial reward	highly dependent on the performance score	management is using the performance score to drive motivation to reach targets.
2	Relationship Manager from Broker Services	performance target and measurement system	a contract between the relationship manager and Santam and this determines the performance score	this is the mechanism Santam uses to motivate their staff and a strategy to which the relationship manager has agreed.
3	Relationship Manager from Broker Services	resource constraints	inevitable	very often vacancies are not filled (or not in time) and every division has to be conscious of management expenses.
4	Relationship Manager from Broker Services	the broker	as a business partner	he/she is the primary source of new business opportunities.
5	Relationship Manager from Broker Services	the relationship with an existing Santam broker	difficult to maintain	it takes time and effort and there are many such relationships to maintain.
6	Relationship Manager from Broker Services	relationship with a prospective broker	a high priority	it can contribute to the divisions' growth targets.
7	Relationship Manager from Broker Services	relationship with a prospective broker	difficult to establish	it takes time to build trust and show commitment and to convince the broker of the value that Santam is delivering.

Using these partial views, the causal loop diagram only for the Relationship Manager of Broker Services can be developed as depicted in the diagram below:

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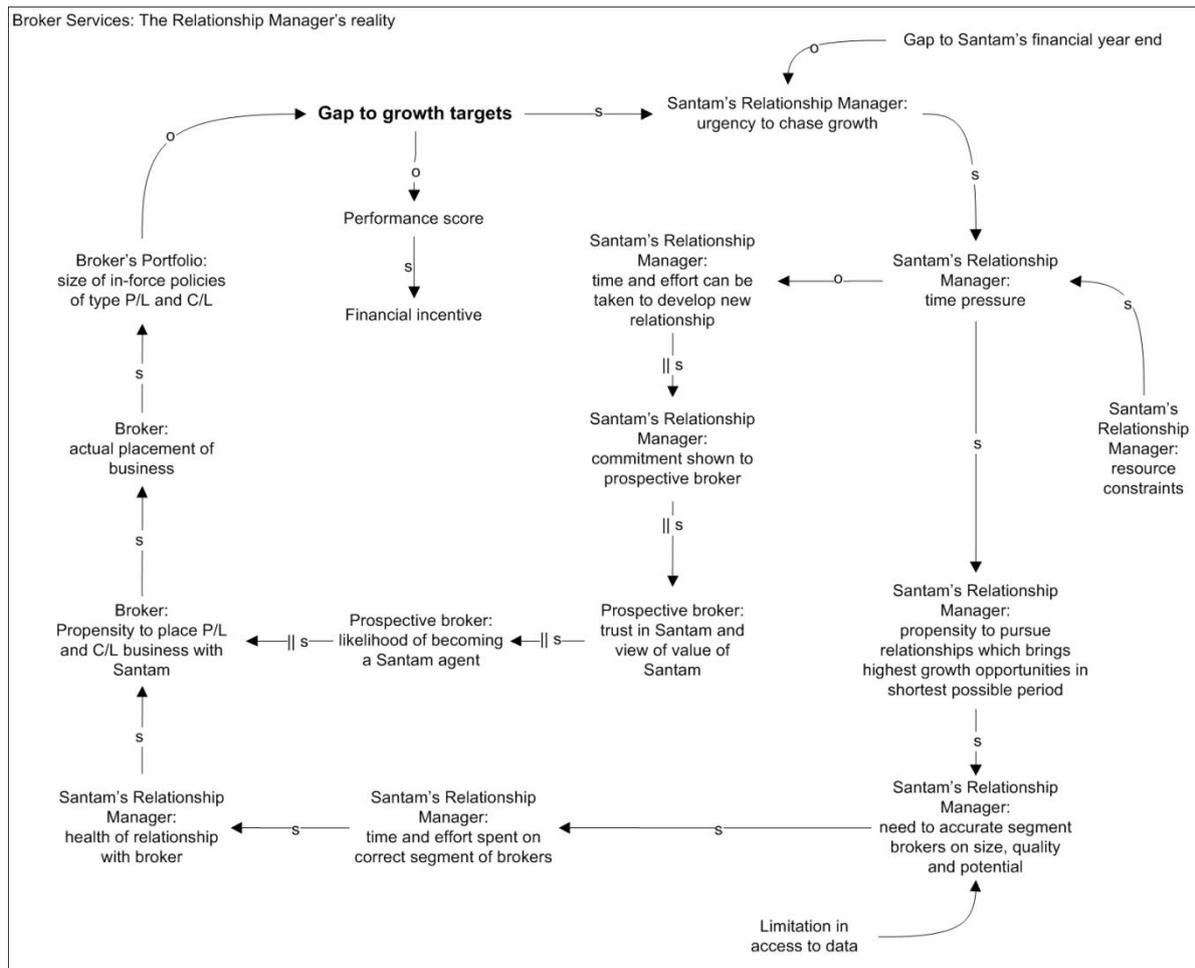


Figure 5-16: Causal loop diagram for Case study 3: Broker Services' reality

To explain this causal loop diagram, one should begin by accepting that at the start of the financial year there will be a gap between the Relationship Manager's achievement in growth and the set target. This gap is indicated in bold at the top of the diagram in **Figure 5-16**. Naturally this gap is most pertinent at the beginning of the financial year, but as the year progresses, the gap should shrink to zero (or better). However, a gap larger than planned at any given time during the financial year causes an urgency to pursue growth. This urgency is increased by a short period to the financial year-end and by a large achievement gap. Whichever way, an increased urgency to pursue growth causes the Relationship Manager to be under increasing time-pressure to achieve growth. Any constraints in resources that the Relationship Manager may experience at this time, may even further increase the time pressure. This increase in time pressure implies less time available to develop new relationships with prospective brokers. It further implies that the Relationship Managers will pursue brokers with the highest propensity to place business with Santam. This approach is more likely to produce the highest growth in premium within the shortest possible time. In order to identify these brokers, the Relationship Manager experience an increased need to segment the brokers accurately, based on size, quality and potential.

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Models used by insurers to segment brokers all have a limitation which should not be ignored – that of access to data. This limitation manifests on two levels. Firstly, sharing portfolio data between Santam and affiliates in an automated and repeatable way is very challenging and extremely expensive from a technological perspective. Secondly, even having all the data from Santam and affiliates still begs the question of the size of this broker's portfolio with insurers other than Santam. Naturally, not having the latter leaves the question on the broker's true potential up to guesswork. On top of this each business unit is under time pressure to segment brokers and each unit has a silo focus. Therefore the system described through the causal loop above considers a segmentation model by only focusing on the Broker's Personal and Commercial lines portfolio.

Having segmented the brokers accurately, albeit on a portfolio level, the correct amount of time can be spent on the appropriate relationships. That is because at least a partial view exist of the size, quality and potential of the broker's portfolio. Such increased amount of time and effort spend on the relationship between the broker and the relationship manager causes an increase in the health of the relationship. This condition, as seen before, eventually leads to more business being placed with Santam and also an increase in the broker's Personal and Commercial lines portfolio with Santam. An increase in the size of this portfolio has an opposite effect on the achievement gap. In this instance the gap narrows and the Relationship Manager has achieved the intended results.

The effect explicated above is exactly what the performance system was designed to do –motivating the Relationship Manager to pursue growth for the types of business for which they are responsible.

Emerged properties

In this system the following properties emerge:

- i. Relationship Managers are motivated to close achievement gaps to growth targets through a performance system with a financial implication.
- ii. Scarce resources (number of relationship managers as well as time available) need to be applied to opportunities and relationships which then will yield the highest contribution to closing of the gap.
- iii. Several factors and limitations drive segmentation on portfolio level.

These emerged properties from the system under discussion should be synthesised with the properties that emerged from the previous system that was investigated. The first discovery made in this case study was that brokers should not be segmented on portfolio level, but on the broker's total value across portfolios. However, the most recent discovery showed that portfolio

Part 5: Validating the evaluation framework

segmentation is a result of limitations in the available data, as well as by design to drive the growth of the portfolio level.

This leads the investigation to formulate two issues:

- i. Much needed broker-level segmentation cannot be accomplished, due to limited visibility of the portfolio's size, quality and potential across all the business units within Santam and its affiliates (listed as issue 3 in **Table 5-5**).
- ii. Relationship Managers are rewarded when they achieve growth on portfolio level and thus effectively ignore portfolios from affiliates. The unintended consequence is that Relationship Managers negate the relationship between the broker and the affiliates, and thereby ignore growth opportunities within the affiliate portfolios (issue 11 in **Table 5-5**).

5.3.3.6 Step 6: Determining the outcome of the hypothesis tests

Enough evidence exists to reject the Null Hypothesis.

In this case study it has been shown that organisational units segment their brokers in such a way that it only rewards promotion of their own growth and not that of affiliates. The case study demonstrated that one reason for this tendency is the lack of data which is available to the unit. The other reason centres on the behaviour cultivated by the performance management system. This system rewards employees of a division only on indications of growth within that division and not on growth of peer divisions.

5.3.3.7 Conclusion of Case study 3

The evaluation framework was employed in this case study to discover reasons why cross-selling between Santam and its affiliates were challenged. The true reasons were known due to an investigation which was conducted in 2010. This case study has shown that by using the framework, one could elicit the same results. Although more reasons were listed during the 2010 initiative than those discovered through Case study 3, similar systems can be defined to make clear the discovery of the other results.

Part 6: Conclusion

6.1 Achieving the research objectives

The hypothesis dealt with in this research study postulated that an evaluation framework can be developed to assist organisational units with one of three types of investigations into the underperformance of processes.

- Firstly, an organisational unit can investigate their own processes in order to determine whether the output of this process impacts on other organisational units. This was stated as hypothesis H1.
- Secondly, an organisational unit experiencing an underperforming process can use this evaluation framework to determine which other processes, or systemic influences are causing the process to underperform (stated as hypothesis H2).
- Lastly, hypothesis H3 contended that two or more organisational units may recognise hampered interactions between them and can apply this evaluation framework to identify which processes hamper collaboration between organisational units.

The research objective was to develop a framework through which an investigator can follow a stepwise approach in order to uncover systematically the systemic influences causing underperformance of the process under investigation.

These research objectives as stated were achieved in Part 4 of this research study. A framework was developed that outlines six investigational steps, which can be used to investigate underperformance. A Rouse's Integral Framework for Performance Measurement was modelled to formulate the objective of the evaluation framework. From this framework three investigational processes were defined. The outputs generated by these three processes lead to the achievement of the objective of the framework. Depending on conditions, each of these processes consists of six steps that need to be followed. Following these steps will produce the defined outputs and thereby lead to achieving the objective of the framework.

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The steps in the framework to follow are:

Step 1: Define the Null Hypothesis

Step 2: Develop the integral framework for the process under investigation, or:
Define a collective objective.

Step 3: Develop a systemic overview model

Step 4: Develop a multiple partial-views model

Step 5: Develop a causal loop diagram

Step 6: Determine the outcome of the hypothesis test

6.2 Validation of the framework

The framework has been validated in Part 5 through the use of real-world case studies. These case studies are actual existing scenarios within Santam. The application of the framework has given insight into the cause and effect of decisions and actions taken by departments. Knowing these effects, departments can then re-evaluate their decisions to determine whether it is still viewed as beneficial to the organisation as a whole. In case study 3 the systemic influences were already known due to an investigation launched some years back. This investigation lasted almost three months and although it had a positive business case, it was an expensive investigation. This case study showed that by conducting the investigation through the use of the framework, the same outcomes were reached. However, the use of the framework provides a more structured approach. Once the organisation has built up expertise and repositories of multiple partial views and a causal loop diagram, it is anticipated that by using the framework, it would reach the results quicker.

Subsequent to the formulation of the framework – even though it was done in an informal manner – the actual framework has been used in the context of Santam by the researcher to help understand root causes of issues within complex environments. It is envisaged by the researcher that investigators of under-performing processes will continue using this framework within the commercial environment to understand systemic influences on processes and to address hampering processes.

6.3 Usefulness of the framework

Although this research study focused specifically on one organisation, it is the researcher's opinion that this framework can be used in different organisations and applied to various environments. Organisations form part of a complex and non-linear environment and this framework will help

Part 6: Conclusion

uncover systemic influences causing specific issues. In essence this framework leads to the emergence of different views from different stakeholders. These views drive behaviours and decisions. It helps individuals to understand the systemic environment of which they are part and to be cognisant of the unintended consequences of their decisions within such an environment. Such individuals will be in a position to make more informed decisions, which will add value to the organisation as a whole.

This framework requires of the investigator to have domain knowledge in the areas of Systems thinking and conceptual thinking. When a researcher leading an investigation has these competencies it will accelerate the investigation. However, these steps have been designed in such a manner that small logical steps are taken at a time. Each step produces, in logical progression, outputs which informs the next logical step. Even for investigators with minimal Systems thinking knowledge it is anticipated that these steps will be achievable.

Furthermore, organisations should build up a repository of partial views, causal loop diagrams and integral frameworks for existing processes. Such cognitive devices will assist inexperienced system thinkers with their investigations and will help them reach the outcome sooner.

6.4 Further studies

During the research study, several other areas were identified which may complement the evaluation framework as it was developed through this study. A brief summary of each of these areas are given below.

6.4.1 Social Network Analysis

Social Network Analysis refers to the discipline of analysing complex systems in a generic way. A social network merely refers to a network of individuals, social entities or even groups, who interact with each other through relationships. These relationships can be analysed, which allows relationship structures to emerge. Such structures are the result of multiple and intricate interactions formed over time. On a high level, these structures show network density, cliquing, actor centrality, actor prestige and indicate isolates.

- Network density describes the cohesiveness of a subset of individuals. Should pockets of the network have dramatically higher density, cliques are formed.

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- Network centrality indicates an individual's ability to initiate interactions and relationships within the network.
- Network prestige entails a networks' tendency to interact with another particular network.
- Isolates describe individuals who experience low network activity (Koehly & Shivy, Victoria A 1998; Espinosa et al. 2011).

The evaluation framework as proposed in the present study, highlights the complex nature of the commercial environment. Some of the complexity and non-linearity of the systems are visible through the causal loop diagrams. Particularly in Case study 3 it can be observed that investigations can result in large number of stakeholders, which cause colossal causal- loops diagrams. One of the aims of the systems thinking approach is to gain a deep understanding of underlying structures. This enables investigators to answer the question: "What is really going on here?"

The researcher is of the opinion that Social Network Analysis can greatly assist in this understanding. It is anticipated that by applying this methodology to the organisational environment, many characteristics about individuals and groups will emerge, which will further help define the multiple partial views, and the Theories-in-use. In this sense a deeper level of understanding will be gained about individual behaviour and what leads individuals to follow certain behavioural patterns and make certain decisions. Lastly, the analysis will highlight which individuals are leaders of a group and who are isolates. This is important to know from the perspective of managing changes in an organisation. If an organisation decides to react to the outcome of the evaluation framework, changing the behaviour of the "leaders of the pack" will ease the change for the "pack" as a whole.

6.4.2 External view

This research study focused internally on the organisation. However, an organisation is not decoupled from its suppliers and its customers. Different forces are at play between organisations in a free market than just the actions of those internally to the organisation. The researcher proposes that the evaluation framework is extended to cater for these systems as well. Many organisations have to deal with an underperforming supplier and need to understand if a process internal to the organisation is actually hampering the supplier.

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6.4.3 Network organisations

Intermediated commercial environments face different challenges than supplier-customer environments. In the intermediated business model, and especially in short-term insurance, there are primarily three actors: the insurer, the broker and prospect/policy holder. The interactions between these three parties are depicted in **Figure 6-1**.

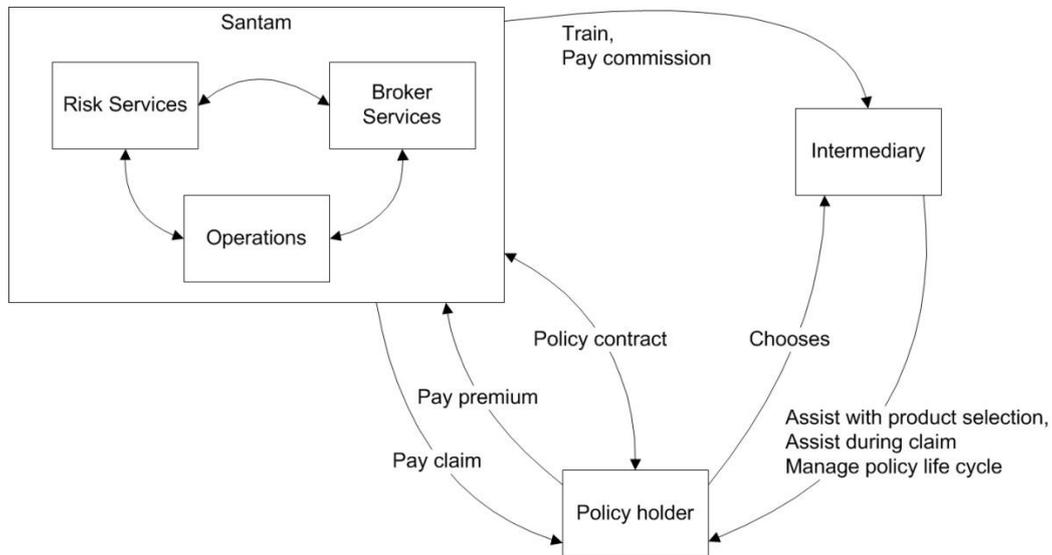


Figure 6-1: The Intermediated approach

The present study has considered the Insurance value chain in paragraph 3.1.1, also depicted in **Figure 6-2**. Below. One can argue that the acquisition step in the value chain includes the role of the Intermediary. However, this is a narrow view which might cause limitations during investigations.

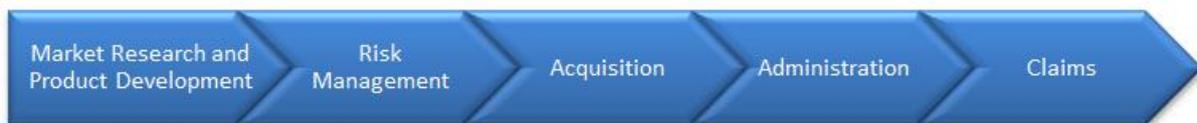


Figure 6-2: Insurance value chain

Part 6: Conclusion

Here the role of the intermediary should be considered. Delivering value through a *network* will be a more accurate description than delivering value through a chain. Fernandes explain this feature (Fernandes 2012):

“... a value network is any web of relationships that generate tangible and intangible value through complex dynamic exchanges between two or more individuals, groups or organisations, and acts more like a living systems than a mechanical one.”

Fernandes also refers to a value network as more complex than a value chain. This complexity is evident in the intermediated business model. To take this one step further: within the Santam organisation it is evident that the mechanism delivering value to the parties (intermediary and policy holder) is much closer to a network than a chain. Morton *et al.*, and Syson refer to network organisations and an approach to the breakdown of barriers caused by organisational silos. The relationships within network-driven organisations are “self-generated, self-organised and self-managed” (Morton et al. 2004; Syson & Perks 2004). In the context of viewing an organisation as a network organisation, and managing the relationships within that network, Morton also refers to the discipline of Social Network Analysis and the advantages it can bring to such approaches.

The researcher of this study believes there are scope to extend the evaluation framework with the principles as laid down by the approach that focuses on network organisations.

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Appendices

Appendix A: Short-term insurance industry value chain

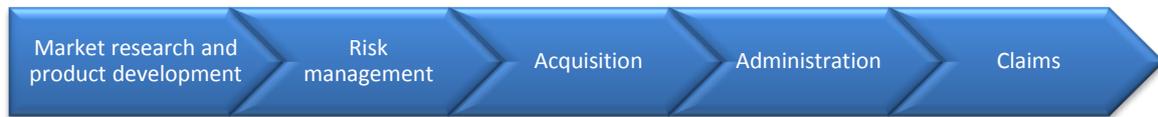


Figure A-1: Insurance industry value chain

The Insurance Industry Value Chain is depicted in **Figure A-1**. Typically five distinct steps are defined in the value chain and are depicted from left to right in the chain. A brief description of each of the steps is given below.

Market Research and Product Development

This is the very first step in the value chain and focuses on determining the customer need and defining the insurance product. Customers' insurance needs are determined through several mechanisms, but a considerable aspect consists of market research. Product development refers to the definition of the risk cover the insurer will offer in order to fulfil customer needs. As part of the insurance product, policy wording is defined that stipulates the exact conditions for risk cover. Variation on cover within product boundaries is achieved through applying special underwriting clauses. Pricing models and insurance tariffs for cover offered are defined as part of this step and typically involve statistical or actuarial analyses.

Risk Management

This step in the value chain is responsible for managing the profitability of the risk pool. This is achieved through governance of the ratio between the premiums collected and the claims paid. The profitability of the risk pool is managed by managing the premium of the existing risks in the risk pool, as well as by governing the price of new risks that enter the pool. Risks are grouped into classes of insurance and profitability can be managed per class.

Acquisition

The acquisition step involves selling products to customers. In intermediated business models this step is also responsible for establishing new intermediary relationships to increase the distribution channel. According to this step proposals are provided to intermediaries as well as assistance in selling to their customers.

Administration

Administration refers to maintaining the agreements between insurer, policyholder and intermediary. The types of administration and frequency of administration that are required typically varies between the different insurance industries, which are life, health and short term.

Claims

The last step in the value chain involves handling the claims logged by policy holders. When claims are logged, the extent of the loss is assessed and the incident of loss is evaluated against the cover stipulated by the in-force policy. If the incident is not fully covered the claim is repudiated. In cases where the incident is covered by the policy, a process is followed to settle the claims amount with the policy holder. Insurers usually benefit from procurement arrangements with suppliers and this procurement benefit is based on the volume of purchases done during a certain period.

Appendix B: An example of the underwriting and discount mandate given to the organisation by Risk Services

The unit Risk Services is not directly involved during the acquisition process and thus need other departments and individuals to act on their behalf. There is a vast variance in the complexity of underwriting all the possible risk types. Therefore these sales departments and individuals cannot be afforded the freedom to underwrite any risk type at any amount. Governance need to be applied to separate the commodity risks from the specialised cases. In addition, expert risk-underwriters are scarce and expensive resources. Therefore efficient use of such resources is imperative. From this it follows naturally that the complex and specialist cases are channelled to the experts whilst the sales departments handle the commodity cases. This form of governance is achieved through mandates.

In the most basic view, there are two types of mandates: underwriting mandates and discount mandates. Underwriting mandates refers to the types of risks which may be underwritten, as well as the sum insured that are associated to underwritten risks. Discount mandates refers to the amount of discount which may be given on premiums. Discounts are typically a function of the risk class, for example, discounts for the vehicle risk-class is typically different than that for the building risk-class.

One example of how such mandates may be handled is discussed below. A definition is considered of two main mandate groups, each of which are defined into three subgroups. These main groups can be called Generalist and Experts, and each subgroup can be awarded a numerical value of 1 to 3, with 3 defined as the highest level and 1 as the lowest level. In terms of this definition, the person with a Generalist 1 association will have the lowest mandate in the organisation. Likewise, the person with the Expert 3 association will have the highest mandate.

A complete definition of mandates will cover all classes of insurance and naturally entails a large document. For illustrative purposes the two examples below cover a small subset.

Table B-1: Discount and underwriting mandates for risk class: Fire

Fire			
Mandate level		Discount (Max discount %)	Underwriting (Max sum insured)
Expert	3	40%	Up to R500 million
	2	30%	Up to R400 million
	1	20%	Up to R300million
Generalist	3	15%	Up to R100 million
	2	10%	Up to R20 million
	1	5%	Up to R10 million

Table B-2: Discount and underwriting mandates for risk class: Vehicle

Comprehensive vehicle cover			
Mandate level		Discount (Max discount %)	Underwriting (Max Sum Insured)
Expert	3	30%	Up to R3 million
	2	10%	Up to R1 million
	1	10%	Up to R600 000
Generalist	3	10%	Up to R500 000
	2	5%	Up to R400 000
	1	0%	Up to R350 000

Appendix C: Accidental Adversaries system archetype

As an example the casual-loops diagram below can be considered. This diagram depicts the generic archetype of the Accidental Adversaries system. This system indicates how two parties can help one another reach their respective targets, but when the harmony is disrupted, they unintentionally can be turned into adversaries.

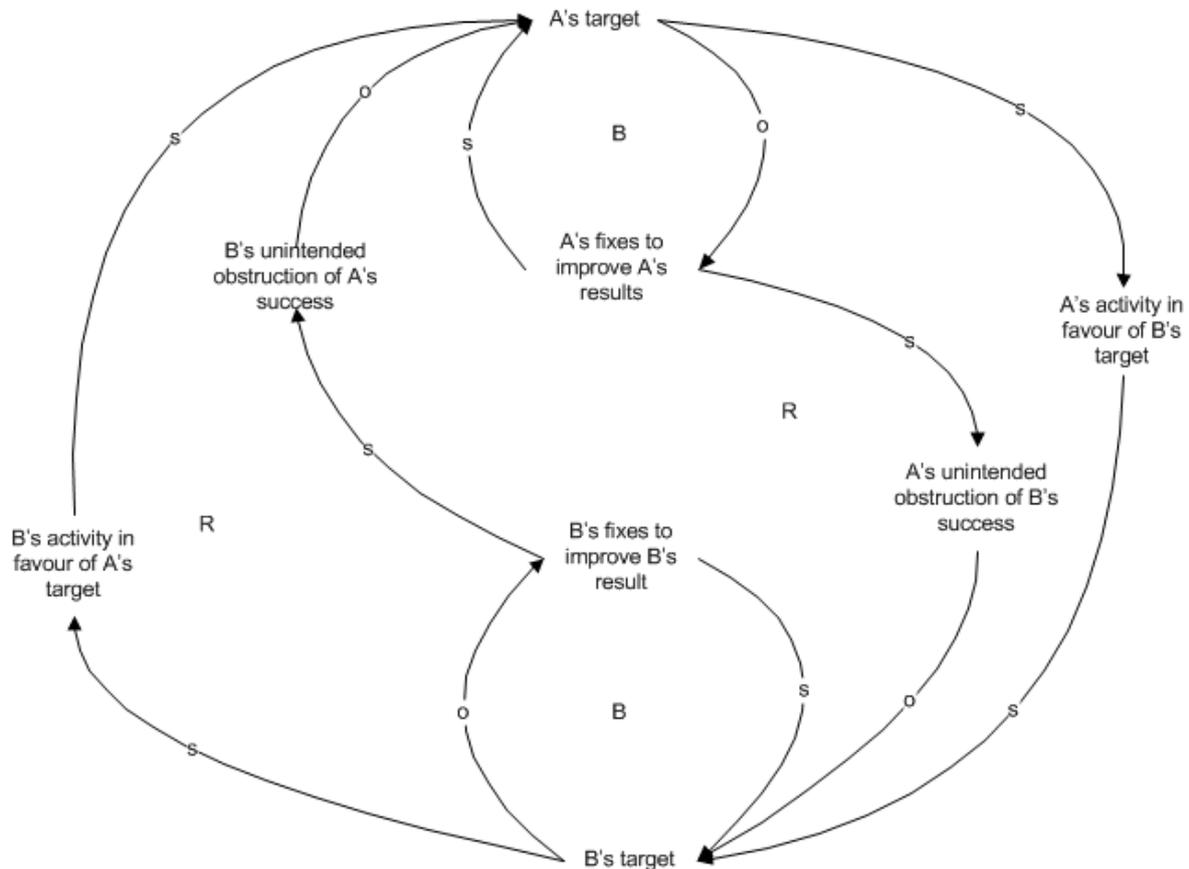


Figure C-1: Generic archetype for accidental adversaries

As an example, two generic parties A and B can be considered. Each party has a target depicted at the top and bottom of the diagram. On the outer loop, each party execute activities that benefit the other party. At a point in time, this balance is disturbed. Unknowingly party A does something that is perceived by B to be outside of the agreement between the parties and which hampers B in reaching their target. It may not even be party A that causes party B to under-achieve on their targets. Irrespective of the trigger, B applies fixes to improve B's results. This is noticed by A since these fixes hampers A in achieving their targets. Similarly, A applies fixes to improve their results, but in doing so, hampers B in reaching their targets. In this instance A and B unintentionally have become adversaries (Braun 2001; Bellinger 2004).

Appendix D: The evaluation framework expressed through Rouse's Integral Framework for Performance Management – the complete view

Integral framework for identifying conflicting strategies and hampering processes			
Planning axis			
Entity		Entity value	
Vision/goal		All organisational units collaborate in a constructive manner to maximise shareholder value.	
Objective		None of the strategies executed in any organisational unit will impact negatively on any other organisational unit without the strategy being properly assessed and evaluated.	
Plan		Identify and evaluate contributions, inputs, outputs and outcomes of own activities and activities of other organisational units within the context of setting other objectives in one's own and in the other organisational units.	
Performance norm		Qualitative feedback between organisational units.	
Achievement axis			
Entity		Entity value	
Benefit		Maximise shareholder value	
Outcome and strategic outcome		The net effect of contradicting strategies still exerts a positive value on the benefits for the shareholders.	
Process			
#	Input required	Activity	Output produced
1	Process under investigation Domain knowledge	Evaluate hampering outcomes	a) Outcomes that may be hampering business processes b) Business processes that may be hampered c) No evidence of hampering
2	Process under investigation Domain knowledge	Identify hampered contributions, resources or inputs	Contributions, resources or inputs that possibly may hamper the business process under investigation
3	The desired future state Domain knowledge	Discover hampering processes	List of processes hampering collaboration and achievement of common objectives
Evaluation axis			
Entity		Entity value	
Measurement		Qualitative evidence that hampering exists	
Evaluation		Effect of hampering on strategic outcomes	
Organisational structure and culture		Each organisational unit	
Stakeholder expectation		Identify outcomes of a process that may be hampering another business process. Understanding why hampering occurs in order to inform corrective action.	
Resource axis			
Entity		Entity value	
Resource utilisation		Domain experts to help support evaluation of a process executed within a specific domain Experts in the evaluation approach	
Resource capacity		Business resources need to have a comprehensive understanding of their environment Resources conducting the investigation must be versed in Systems thinking, Conceptual thinking and the use of complex systems	
Contributions		Domain experts, business resources and resources doing the investigation need to contribute whatever is needed	

Appendix E: An overview of the Word Café method

The aim of the World Café method is to get a large group of people to talk about a specific topic in a safe and relaxed environment and within a short period of time. Typically in large groups, there is a subset of the group that talks a lot, a subset that has a few opinions which they may offer to the group and lastly a subset of people who do not participate at all. With the World Café method, large groups are broken into many smaller groups, which allows many parallel discussions. The basic method consists of five components (World Café Method n.d.):

The setting

The venue needs to reassemble a café to create a relaxed environment. Typically, small tables to seat four or five individuals should be used. These tables should be decorated with paraphernalia to mimic a café environment. Coffee and cookies can even be served – some hosts may dress up as waitrons. On each table, however, there should be paper, colour pens, sticky notes et cetera. The table cloth can even be a sheet of brownpaper.

Welcome and introduction

A workshop is facilitated by a host who is well versed with the method. The host welcomes every one and introduces the method. The goals are explained, as well as how this method will assist the group in achieving the goals. Very importantly, as in any café, etiquette is to be followed and the host needs to explain this etiquette to the group.

Small group rounds

The process commences with a round of a 20 minute discussion for each of the groups seated at a small table. At the start of the first round, one person per table volunteers to be the table host. At the end of the round, each person apart from the table host moves to another table and then the second round starts. At the start of the second round the table host gives a three to five minute overview of the previous discussions by referring to notes made on the paper/brownpaper table cloth. The discussion continues for the remainder of the 20 minutes, after which participants move to different tables. Time should be allowed for at least three rounds., However, depending on the session's goal, more rounds may be allowed.

Questions/discussion points

A set of carefully designed questions or discussion points needs to be prepared before the workshop starts. The aim is to discuss a new question with every round, but the workshop host should be open to tables where the participants would like to continue discussion of previous rounds. It is the discretion of the workshop host to manage this ongoing discussion. All questions and discussion

points need to be covered during the workshop, but the discussion sessions should not be stifled with rules.

Harvesting

At certain milestones during the workshop, or at the end of the small group rounds, feedback should be given to the larger group on the points of discussion. This is done by each table host. When table hosts are appointed at the start of the workshop, they should be informed of this responsibility.

This feedback can be grouped in terms of questions or discussion topics; or all the feedback from one table can be given in one session. This also is a great opportunity to use the Affinity method to induce group-related discussion outcomes.