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A NEW MODEL FOR CAPTURING THE KEY ATTRIBUTES
OF ORGANISATIONS AND DRIVING CHANGE

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A thesis submitted in partial fulfilment of the
requirements of the University of Sunderland
for the degree of Doctor of Philosophy

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1.0 Abstract

It's a complex time to be in business - the world is volatile and uncertain, and the global business landscape is changing fast. Organisational change is at a crossroads as a result of the creative destruction caused by digital technology, which is radically developing the possibilities of the Internet. This creative surge is demanding new business models that can respond more effectively to expanded time dimensions, unprecedented ubiquity of information, new market behaviours, unparalleled access to global masses, more demanding consumers and the redesign of humans in organisations. Change management is trying to address this challenge with thousands of books, and the mountains of research articles published on the topic of change. However, we also know that over 70% of organisational transformations fail ((Beer and Nohria, 2000), and that failure rate may even be increasing. It seems that, despite prolific output, the field of change management hasn't led to more successful change programmes. Most change programmes die a slow, lingering death, often destroying leaders' careers and hard-earned reputations in the process. This is because traditional business models and systems are no longer yielding the same result, existing change models are not dynamic enough to cope, and many leaders, in failing the change test, perish. Change however, is easier said than done. To many, change is experienced and viewed as an abnormal process that demands a response. This is leading to individuals and organisations seeking out new ways to normalise the change process itself.

The purpose of this research is to provide a greater understanding of both the content and process of organisational change, and to represent that greater understanding in a new and more dynamic framework. Many theories and analyses of organisational change seek to explain why organisations change, as well as the consequences of that change. On reviewing the empirical research on both questions, the results were found to be at best fragmentary, and often contradictory. As an output of this process, many models and frameworks of change were examined within this research. Further the metaphors, characteristics that underpinned these models were examined to establish the critical dimension of organisational change and to establish a blueprint for a new model. This model was built to capture both the process and content of

organisational change in a more dynamic way, which will ultimately lead to a more digital way.

2.0 Acknowledgements

2.1 Dedication

I dedicate this work to my wife Karen, for inspiring me always, to my fantastic son Ethan who allowed me the time to complete it, and to my daughters Ciara and Aine who despite the distance are always a part of me, every second of this journey through life.

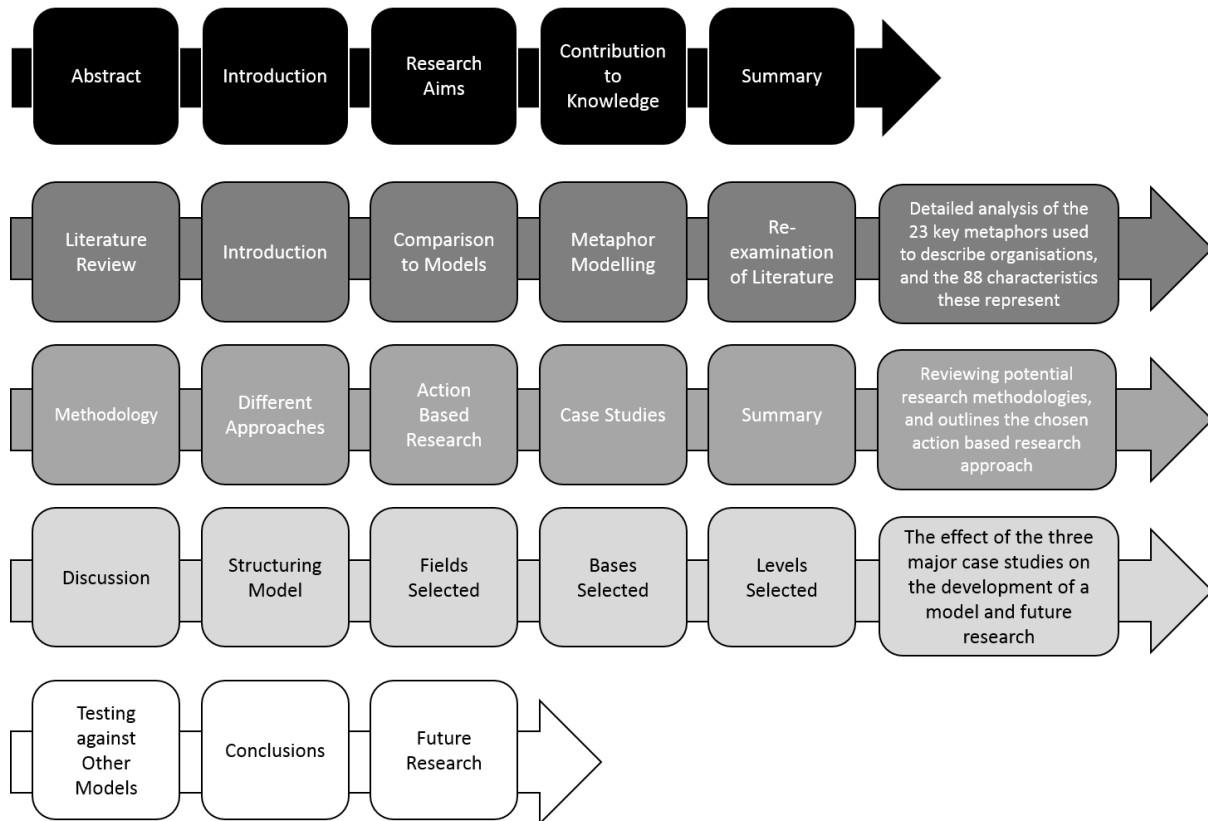
2.2 Acknowledgement

I would like to thank my supervisors, Prof. John MacIntyre and Prof. Peter Smith, for their support and guidance during my PhD. John, this work would not have been possible without your input. Peter, despite some major life challenges your spirit, good humour and ability to overcome your physical illness are an inspiration. I would like to thank Dr Annamaria Moscardini, Dr Hui Jin, Olivia Steel and Daniel King who would help me at the beginning and whose work and thoughts helped me so much. I would also like to thank my colleague Caroline Snee for keeping me straight and on course for my PhD, in particular during the final stage of submission. All you guys are special.

2.3 Reflective Learning

As I have followed the journey of learning through research, I have sought out opportunities to improve, by challenging my thinking, clarifying my conclusions, and contributing to the world through new knowledge. In the many seminars I run, I often tell participants that the two most important days of their lives are the day they were born and the day they figure out why. Part of my personal view of why I've chosen to undertake this journey is to make a contribution to a body of work where giants in their respective fields have already made significant contribution to the subject which I love. I seek to learn from these giants and, in some small part, make my own contribution. As I follow this journey, I will try and capture those small nuggets of new personal reflective learnings in this thesis. I hope that this will help others on their own journeys.

3.0 Introduction



Layout of Thesis that describes the structure of the research completed. (Expanded version in Appendix 14)

Figure 1: Layout of Thesis (Author's own work)

The challenge, evident in many prior studies, is that when companies re-organise, few achieve all the benefits they so desperately need. Burnes & Jackson state that there is significant evidence to show that approximately 70% of all organisational change initiatives fail (Burnes & Jackson, 2011). This means that organisations which are seeking to adapt during volatile and uncertain, times cannot force change through on purely technical or directive approaches, such as redesign, restructuring, and reengineering. Organisations need a new kind of capability to change paradigms, reframe dilemmas, reskill leaders, re-interpret options, and reform operations and they need the ability to do so continuously in real time whilst tracking the performance.

This repeated failure to achieve the benefits required eventually impacts employee engagement, productivity and output, organisational climate and culture, and

leadership morale in a disruptive manner (Gallego-Toledo, 2015). Therefore, what is needed is a real time diagnostic solution, one that has been designed to meet today's uncertain times by changing business transformation processes to achieve radical improvement in performance across a number of key dimensions and track those changes in real time.

The science of management has constantly sought the best approach to understanding reality, so that the patterns and structures of change conditions, change states and change possibilities within organisations can be more easily understood. Taking into consideration the importance of defining an organisational 'reality', the starting point for this research is, at a conceptual level, investigating different metaphors used to describe organisations. The author's research into organisational theory shows that metaphors and characteristics are prevalent in conceptualising an organisation, but these terms can sometimes be used ineffectively. The main purpose of the ongoing work is to examine the relationship between certain characteristics and dimensions that affect change state, change conditions, change possibilities, brand perception, market trends, communication, change adaptation and transformation, innovation and bottom-line organisational performance.

Traditional analytical tools often claim to have a 360° view of an enterprise or business, but in reality, they only analyse current or historical data. Traditional analytics can help provide insight into what went right and went wrong in decision-making. However, one cannot change the past, but one can prepare better for the future and decision makers want to see analytics that predict the future, enabling them to control it, and take action today to attain tomorrow's goals.

The elements of performance management tend to be very fragmented or siloed and represent a significant barrier to achieving a shared vision and commonality of purpose. Managing performance well is one of the value-creating behaviours of successful companies. Value based management can provide a precise and unambiguous metric to measure organisational performance on one level. However, the process is very linear, lacks a dynamic edge and fails to capture future focus, trends or contradictions and therefore does not meet the key conditions of a dynamically time sensitive enabled business solution.

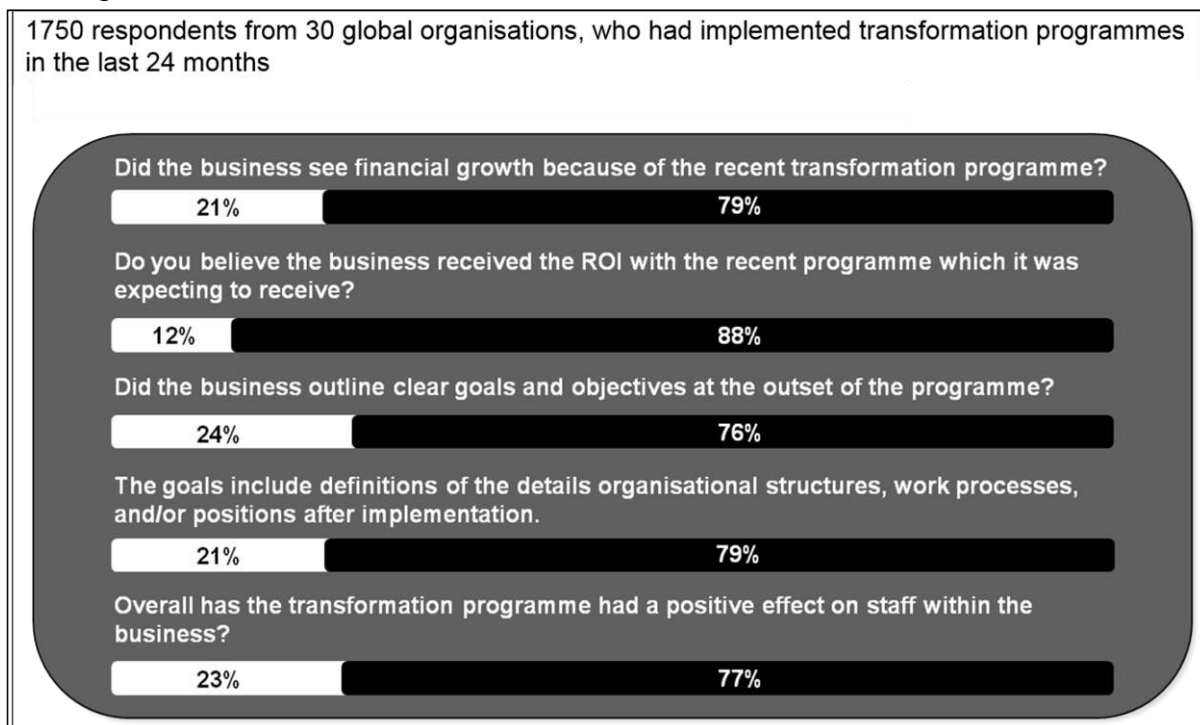
The research in this thesis suggests that there is a very different way of looking at change in organisational terms by examining all of the components of organisational change from various business models (for example McKinsey 7S, Beer's VSM model, TRIZ and Game Theory), distilling them into the 23 metaphors that can be used to describe an organisation, to the 88 characteristics that underpin both these metaphors and models. The author of this research has worked in organisational change for over 30 years and brings with him a wealth of practitioner experience and knowledge, drawn from time spent working with change in over 80 countries for such organisations as Nortel Networks, Lucent Technologies, HP, Manpower, Right Management, Rio Tinto, and the UK's National Health Service to name but a few. This research simplifies the complexity of the intricate workings of an organisation and is a significant new way of assisting in the organisational transformational process.

The action-based research completed after the literature review included a cyclical process of review through three very large case studies, where the outcomes of the research were tested, reviewed and recalibrated. The outcome of the research was first a cubed '5x5x5' model which measured the major characteristics identified, and the energy levels of these characteristics within a structured level framework. This '5x5x5' model was later adapted after the case studies to an expanded '7x7x7' model which captures all dimensions to measure organisation capability at its current status, and the organisation's desired future status. Further it provides a methodology to track the change journey over time.

The outcome of this project is a new model, which seeks to enhance and facilitate understanding of organisational change and provide a quick tracking facility. The three significant case studies completed have also provided multiple new opportunities for future research.

The main output of this thesis is found in the depth and originality of the research completed, and the resultant creation of a new way of measuring both current and future organisational status with the creation of a roadmap through a highly visible and yet simple framework. This allows organisations to measure their current status within a 'new model', and map the desired future state of the organisation, identifying alignments and contradictions, illuminating the roadmap to the desired state within a framework that can be tracked, monitored and measured.

Multiple rounds of change programmes are generally considered to be unpalatable, as employees reject constant repeats of failed programmes, and leaders are incapable of delivering the conditions to make change possible. The cycle of seeking change continuously repeats itself and it becomes predictable. Largely this is due to a failure to apply the changes, or to minimise the pain to the business in the planning stages. *Figure 2* outlines the experiences shared with the author’s own organisation, in a survey of 30 large global organisations. The results clearly show that the leaders of many organisations struggle to implement change or realise the value of their intended change.



The impact of transformation: respondents shown as a percentage (Author’s own work). Percentage agreeing in black, disagreeing in white.

Figure 2: The Impact of Transformation across 30 global organisations.

3.1 Research questions

The aim of the research presented and discussed in this thesis is:

- To investigate the key characteristics and their inter-relationships which determine the nature, behaviour, and performance of business organisations.

- To propose a model of these characteristics and their inter-relationships which can be used to support change management and performance improvement in business organisations.

The research aim was supported by four research sub-questions:

- Is it possible to define a set of key characteristics and their inter-relationships which determine the nature, behaviour, and performance of business organisations?
- Can these key characteristics be collated into a cohesive and dynamic framework which can be used by organisations to support them in change management and performance improvement?
- Through second tier application, can the framework continuously survey the whole change programme whilst expertly transforming the parts?
- Can such a framework be tested and validated in real business conditions?

3.2 Background to Research

The best way for businesses to survive and thrive is to embrace change as a positive force, and to avoid becoming static. The author first worked with Tom Peters' theories in the 1980s as an operational business lead within the manufacturing section making telephone cable for British Telecommunications. In what is often referred to as the "greatest business book of all time" by Britain's Bloomsbury Publishing, and the Wall Street Journal, Tom Peters' book *In Search of Excellence* (Waterman and Peters, 1983), describes eight basic principles that make organisations successful, based on Peters' research of over 43 companies.

Many leaders applied these principles, including the author in an attempt to enhance their organisational capability. However, despite what was written about these successful companies, within a short period of time many were in financial difficulty because they were unwilling or unable to adapt to the change.

Creating an environment where sustainable and scalable change can be implemented is often like an architect trying to build a large skyscraper - the first step is picking the right vision and strategy. The second step is picking the right business model. The

third step is determining the right decisions to be made and the fourth step is mobilising resources and putting decisions into action, which is similar to actually constructing the building. Many companies fail to prepare adequately or are unwilling or unable to embrace change. In the skyscraper example, it could result in an unbalanced building if it was not possible to constantly validate the direction of travel to the desired result. A feedback system is vital to help direct or guide the decision-making process.

One of the more influential management books to emerge in recent years is *The Fifth Discipline* (Senge, 2006) by Peter Senge, director of the Systems Thinking and Organizational Learning Program at MIT's Sloan School of Management. The study of social change has focused generally on the resistance of 'how' and 'why' society resists change, rather than studying the process of change. The definition and quantification of change is extremely difficult to pinpoint given the reasons discussed.

Much like the issues regarding the quantification of change, there is also no general consensus on the best way to describe what a business model is, or the purpose that it serves. In many organisations, in the author's experience a business model is a set of organisational charts, and change involves re-arranging the boxes on these charts in different ways. The author has used many frameworks of Business Model Innovation at different times. In many workshops around the world he is often surprised by many leaders' lack of real depth of knowledge or focus on the design that underpins their business model. In the author's experience many studies interpret business models in different, often contradictory, ways which obviously leads to confusion. As well as the differences in the way business models are described, there are many ways in which a business model can be represented.

While there are many change management models, most companies will choose at least one model to operate with. During his time at Nortel Networks as an EMEA HR Director in the 1990s, the author became enthralled by TRIZ, (Altshuller, 1996), a problem solving methodology. TRIZ is a Russian acronym for "Teoriya Resheniya Izobreatatelskikh Zadatch" (Теория решения изобретательских задач), Elements of TRIZ are continually used in many innovation programmes. The author has worked with many innovation experts on multiple projects and has run many innovation conferences and workshops on creativity and innovation. The author was particularly interested in looking at how innovation had impacted other well-known organisational

change theories Figure 3: Model Comparisons as designed in the original analysis for the research project and carried out some comparative analyses on models which differ from the Triz model. From the author’s experience, he was able to surmise that many of the models available were, and still are, static – not ideal for this time when change is fluid and timeless.

TRIZ Law of system completeness	Stafford Viable Model	Beer System	‘Co-opetition’ Game Theory	Deloitte shareholder value model
Engine	Policy	Added Values	Operating Margin	
Transmission	Co-ordination	Rules	Asset Efficiency	
Control Unit	Control	Tactics	Stakeholder Value	
Working Unit	Implementation	Players	Remove growth	
‘Casting’	Intelligence	Scope	Expectations	

Model Comparisons as designed in the original analysis for the research project.

Figure 3: Model Comparisons (Author’s own work)

The first four models were selected based on the author’s practitioner’s experience. Many models were examined and used in a range of industries and situations by the author right through his 30 years of front line business change experience. In the period between 1999 and 2018, the author was involved in change and transformation programmes with companies such as Nortel Networks, Lucent Technologies, HP, Manpower, GSK, NHS and Rio Tinto. The insights from these experiences led to the realisation that that there was a gap in measuring dynamic change from the current axis positions to the ideal final results. In the author’s experience of business models and with his insider knowledge, it was evident that the literature was developing. However, in the author’s opinion, the development was occurring in silos, according to the particular areas of interest of the respective researchers. The existing models provided analysis and emphasised a system level holistic approach to explaining how businesses operate, and in many cases, sought to explain how value is created, not

how it is captured or can be developed. However, the existing change programmes still struggled to quantify change. If it is difficult to create the right conditions, state and possibilities for change, it is also very difficult to track the changes occurring in real time, and to capture any feedback, or to model data from different parts of the system, with the intention of steering the change process to the correct destination.

In taking a macro or helicopter view of this project, the author as a practitioner made use of a variety of sources of support and observation, initially while searching for a solution and later, when it was apparent that the solution did not yet exist, for inspiration while the research journey was undertaken.

The inspiration for this research came from many places. The author had the opportunity to attend many conferences, both as a speaker and as a facilitator of change and organisational transformation. By attending conferences and seminars, reading the latest academic literature and participating in debate with individuals who were grappling on a daily basis with many of the challenges faced in this research, many ideas and avenues to explore were uncovered.

The author manages over 750 change agents and has worked with multiple organisations that were starting the change journey or have implemented change programmes either successfully or unsuccessfully. These organisations have and are facing insurmountable problems with change and are trying to understand the very question this research sought to decipher.

The author's online presence is significant with over 100,000 followers on social media - many of whom are significant business leaders who were happy to share views and opinions, combined with many other thousands of other individuals who have attended lectures or seminars held by the author and were/are looking to challenge their own thinking.

The author runs an online forum on change and innovation with over 3,000 members where documents and comments are posted by the author and other group members. Many blogs and papers are written on behalf of clients and businesses on topics of change and transformation, creativity and innovation, leader's mindset, and organisation health and culture.

The author collaborates with supplier organisations such as Ernst and Young, NHS, Duke University, hundreds of coaches, global customers of their services, and many change experts in trying to solve client problems that are directly related to this research.

The author, by default, seeks out advice and mentorship from more experienced academics whose research is respected, including the two supervisors of this PhD who brought a whole new set of knowledge, intellect and experience.

A proactive approach to change is necessary because, at some point, all businesses require change for a variety of reasons. In a white paper, 'Transforming your Organization', published by the Centre for Creative Leadership (McGuire, Palus, Pasmore & Rhodes, 2009), it states that change requires more than a simple restructure and reengineer. It needs a different approach and a system/programme which can adapt constantly to the environment and can 'think outside the box'. Without this, change is incomplete or is less beneficial than it otherwise might be.

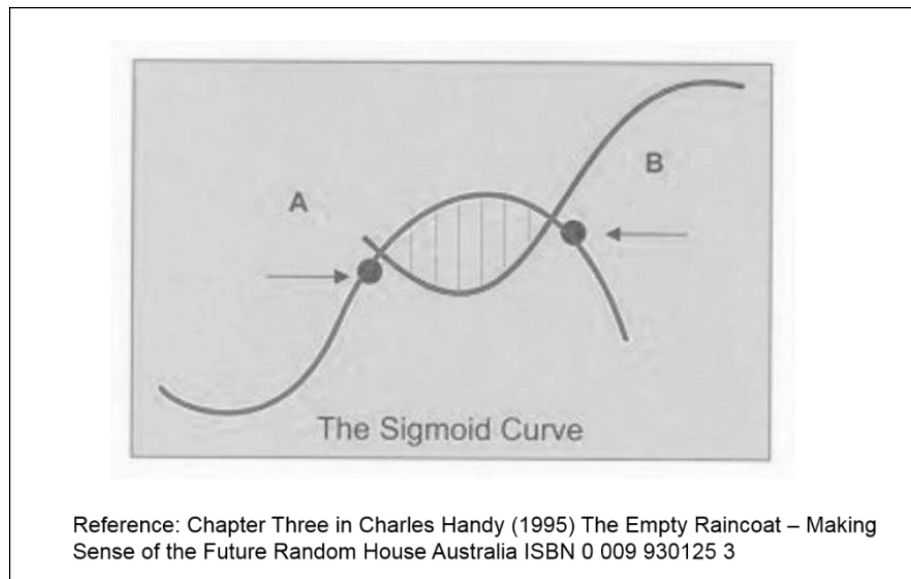
In the author's day to day work, Charles Handy's book, *The Empty Raincoat*, is often referenced (Handy, 1995). In the book, Handy suggested that the best time to start change is before organisations reach the peak of their performance. This often seems counterintuitive, as at this point all business and market indicators would signal that there is still growth potential in the organisation's performance. Preparing for change or anticipating problems can give organisations a head start and can better equip them to deal with problems. Despite this, most organisations still react rather than being proactive. Figure 4: (Handy, 1994) *The Sigmoid Curve*, in *The Age of the Paradox*, demonstrates Handy's theory. As Handy himself explains about the appropriate timing of any change,

"The right place to start that second curve is at point A, where there is the time, as well as the resources and the energy, to get the new curve through its initial explorations and flounderings before the first curve begins to dip downwards" (Handy, 1994:51).

And at Point B, Handy notes,

"...by the time you know where you ought to go, it's too late to go there, or, more dramatically, if you keep on going the way you are, you will miss the road to the future".

(Handy, 1994:49)



The Sigmoid Curve in The Age of the Paradox (Handy, 1994)

Figure 4: The Sigmoid Curve

Figure 4: (Handy, 1994) The Sigmoid Curve, shows at Point A where organisations should change and at Point B where most organisations apply change.

Successful businesses must reinvent themselves whilst things are still successful. As Handy notes, once you go beyond point A in the Sigmoid Curve, the opportunity to change becomes limited, and the resources and energy for change are significantly depleted. The smart organisations aren't just waiting for the right moment, but getting ahead of change by moving at the point A on the Sigmoid Curve, and not waiting until point B. That is what distinguishes successful transformations from those which fail or achieve average performance.

The author's 30 years of practitioner experience has taught him that a true transformation is characterised by startlingly high ambitions, the integration of different types of change (organisational, operational, and commercial), great execution, inspired leadership, engaged employees and a prolonged effort often lasting many months and, in some cases, even years. Driven as we are by the desire to change, and with the speed of everything increasing, the result is that we now need to run organisations in a very different way from the way they were run in the past. We have come to the end of an era where we

cannot solve the current or future problems with the same level of thinking that we have applied in the past. Despite the necessity for change and adaptation, still there are very few organisations being run in new ways with new thinking by embracing change on a fundamental level.

The reason that organisations are not embracing change is often experiential – so many organisations have previously attempted significant change but have failed to achieve the objectives set. Dr John Paul Kotter, in his international bestseller *Leading Change* (Kotter, 1997), suggested that only 30% of change programmes are successful, and this it would appear is still true today. Another supporting argument is that whilst many organisations appreciate the need for change, as many as 70% of the change programmes do not achieve their intended outcomes (Balogun and Hailey, 2008). After almost two decades of intense change from corporate reorganisations, new software systems, technology enhancements and quality improvement projects, the failure rate remains at 70% (Maurer, 2010). This new approach requires a more complex analysis of various aspects of a business, which can feed back information from the organisation into the model, in order to optimise the process.

Kotter's Eight Steps of Change (Kotter, 1997)

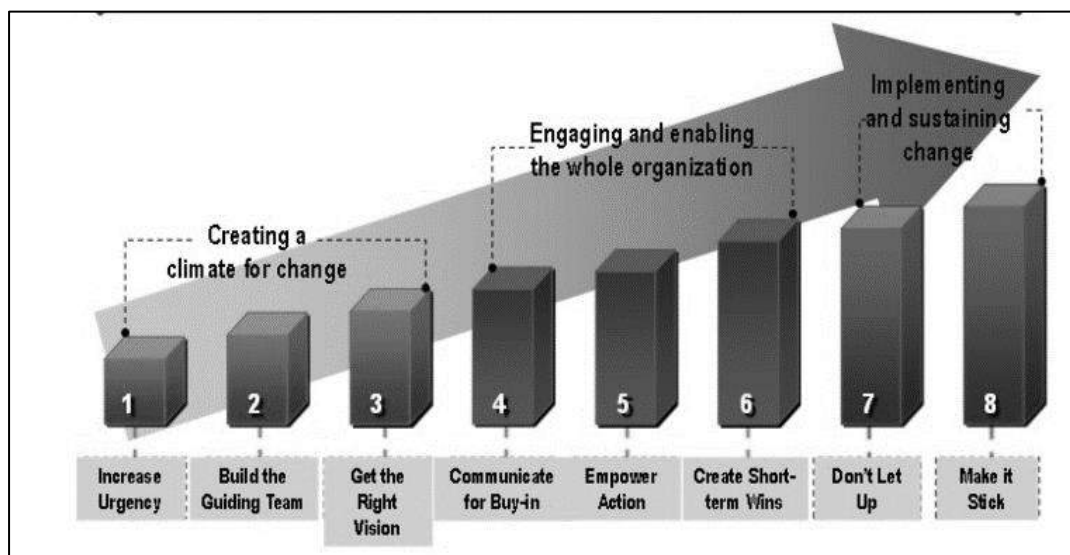


Figure 5: The Eight Steps of Change

The author has used Kotter's Eight Steps of Change, as detailed in *Figure 5*, during his work over many years. *The Eight Steps of Change* is a typical macro overview of

an organisation's operating needs which has been used many times in change management within multiple organisations.

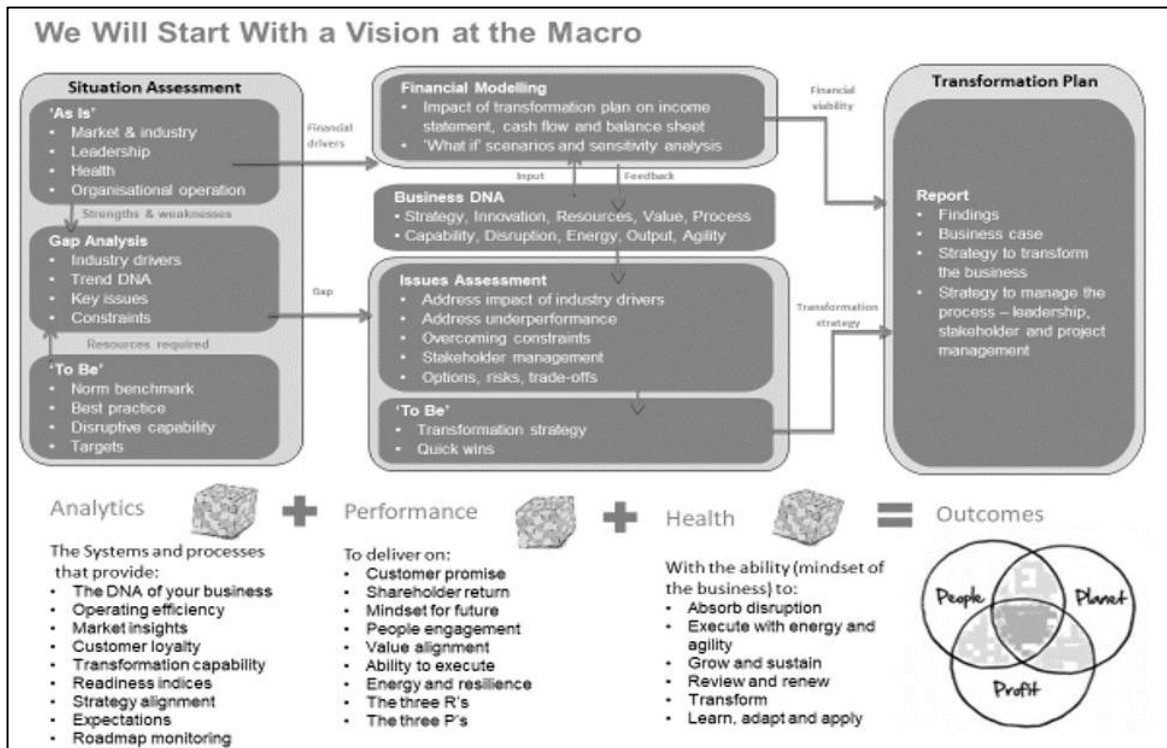


Figure 6: The Transformation Model (Author's own work)

(Expanded version in Appendix 14)

Figure 6: The Transformation Model was designed by the author to capture the transformation overview in 2010.

So, whether the strategic agenda involves dramatic growth, market repositioning, diversification or other competing forces that result in the need for change, there were key questions that needed to be addressed. These questions were driven by the author's ongoing work with organisations such as HP, Rio Tinto, the NHS and Manpower, where it was being found that the models typically utilised to achieve change within an organisation did not account of the numerous approaches that any given organisation takes. Furthermore, many of these more traditional models of change did not describe accurately the process of change in modern businesses, nor

did they describe the results that are subsequently achieved. At present, there is no 'one-size-fits-all' approach.

The traditional organisational development models prescribe many small, sequential or parallel cumulative changes, in addition to a participative management style. However, most organisations undergo transformative change in a more rapid manner with a directive leadership style. Due to the diversity among organisations, the need for adaptable change strategies is paramount in order to achieve successful financial performance. The models that were initially applied were perhaps inadequate given these challenges. The questions arising typically were:

- Is it possible to define a set of key characteristics and their inter-relationships which determine the nature, behaviour, and performance of business organisations?
- Can we capture these and collate them into a cohesive and dynamic model which can be used by organisations to support them in change management and performance improvement?
- Can we then use this model to continuously survey the whole change programme whilst expertly transforming the parts?

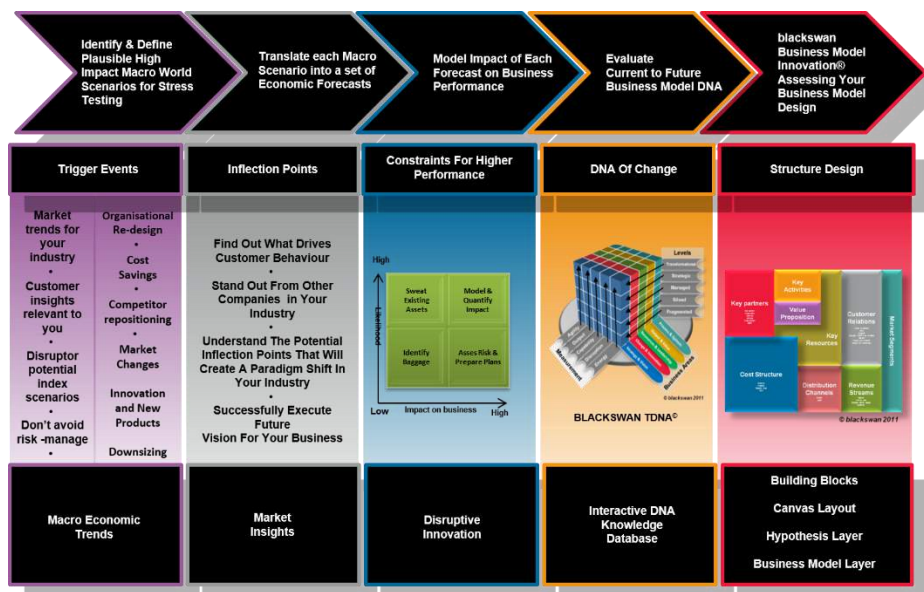


Figure 7: The Culture Transformation Model (Author's own work)

(Expanded version in Appendix 14)

Figure 7: The Culture Transformation Model, captures the key process points in building a transformation programme. Establishing the trigger events, the inflection points, the constraints, the change readiness / capability and the implementation plan are a critical part of developing a change programme.

As a practitioner, the author recognises that it is crucial to identify the events which trigger or precipitate the requirement for change within an organisation. In Figure 7: The Culture Transformation Model, examples of trigger events are outlined. These events were examined for trends and insights, and the impact of such trends and insights at certain inflection points within an organisation.

Effective change is comprised of multiple moving parts, and it is critical that any measurement or framework captures the key dimensions at both the macro and micro levels of change. The application of change programmes in the author's early career was heavily influenced by the work of Beck and Cowan. In their book *Spiral Dynamics* (Beck and Cowan, 1996), they expound the viewpoint that a spiral is a useful way to visualise this process of emerging systems, and that human nature emerges along a developmental path from one equilibrium state to the next.

The Spiral Dynamics hypothesis states that there are six conditions that must be satisfied before an organisation will achieve lasting positive change. First, the potential for change must exist within that organisation and those within it. Second, unresolved problems from a lower, more fundamental order must be addressed as they will prohibit migration towards higher levels of change. Third, the dissonance within the organisation must reach a threshold before change will be welcomed. Fourth, there must be sufficient insight and perception to determine the factors responsible for creating this dissonance, and there should be sufficient awareness to seek resolution via alternative approaches. Fifth, the barriers to change must be explicitly identified and eliminated, bypassed, neutralised or reframed. Sixth, in organisations undergoing significant change, periods of confusion, false starts, long learning curves and awkward assimilation will be experienced, and they must all be managed appropriately while consolidation of new thinking and new approaches occurs.

Beck and Cowan's *Spiral Dynamics* introduced a new model for plotting the enormous economic and commercial shifts that are making contemporary business practice so complex and apparently fragmented. Focusing on cutting edge leadership,

management systems, processes, procedures, and techniques, the authors promote changes such as:

- Increasing cultural diversity.
- Powerful new social responsibility initiatives.
- The arrival of a truly global marketplace.

To the author, this book was inspirational as it framed the questions he sought to answer within the application of change models.

A common underlying theme which became apparent during the early stages of this research was that in current modelling, the six conditions set out in Spiral Dynamics were rarely, if ever, met completely. A perfect example of this is *Figure 8*: The McKinsey 7S Model, known as The 7S Framework is applied in organisations across the world and was originally conceptualised by former employees of the American consulting firm McKinsey, including Tom Peters, Richard Pascale and Robert Waterman Jr.

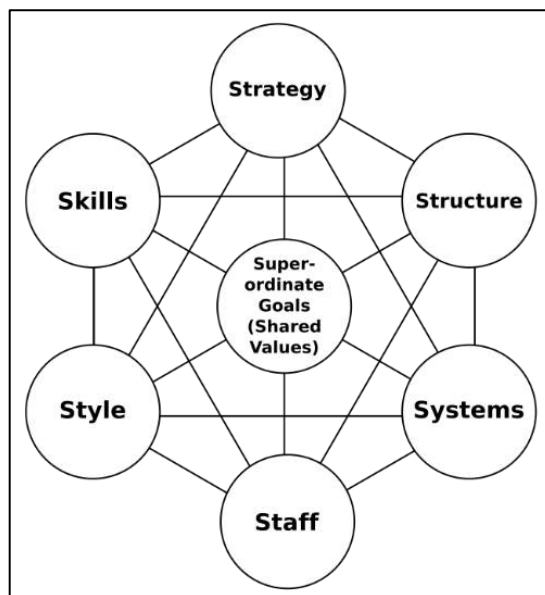


Figure 8: The McKinsey 7S Model

The primary sources of academic research on the subject of the 7S model are Waterman and Pascale & Athos (Waterman, Peters and Phillips, 1980), (Waterman and Peters, 1983), (Pascale and Athos, 1981). The 7S is a successful model which is still used by many today, however it cannot be considered representative of, or

applicable to, all organisations, nor can it provide a sufficiently accurate solution map for such organisations to achieve their desired goals.

The way in which an operating model is analysed is dependent upon the factors which are of primary concern. It has been suggested that the optimal frameworks are developed to suit the situation in which they will be applied, rather than a standard framework which is applied regardless of the circumstances. The lack of flexibility and feedback within the current models tends to exert a bias directed towards an outcome or conclusion.

Due to the extensive practitioner experience gained over the course of more than 30 years exploring this field, the author has utilised and adapted many models and frameworks of organisational diagnostics to assist both his own work within organisations, and that of his clients. Many development teams have been led, some by the author, with the intention of seeking to apply real time capability to track dynamic organisational change. One of the challenges faced is that many traditional BI (business information) tools work with the assumptions they create, and then find the statistical patterns to match those assumptions.

The lack of progress in the development of real time change tracking has led to the author's belief that a system is needed that can comprehensively track activity over vast landscapes, identifying contradictions and patterns with connections that other systems do not capture; a system that can move through the structure, processes, solutions and culture of an organisation, identifying characteristics and attributes that can be unblocked, empowered or repaired; a system or capability that links functions, people and ideas with the natural flows that add precision, flexibility, rapid response, humanity and fun to getting the work done. This research project explored and established the viability of such a system and of this thinking.

3.3 Motivation

With the author's 30 years of experience as a practitioner and investigator of this topic, he has often questioned whether you can truly track change in real time, and whether it is possible to roam over the landscape of the change programme being implemented, seeing patterns and connections, whilst unblocking and transforming each change code when linking functions, processes, people and systems, leading to more natural flows that combine precision, flexibility, innovation, rapid response and

humanity into increased productivity. The problem associated with this challenge is that whilst many of the existing organisational change models clearly try to understand the current situation within an organisation and the areas they believe need to be changed, many build forwards carrying with them the inherent problems that caused the need for change in the first place. In the author's innovative work, he has learned that you must first go forward to the result you desire. Then you decide clearly what change the business requires. Once you have clarity about the ideal final result, you can look back from this future and decide what you don't need, what items you can merge or perhaps do the other way around or what areas need upskilling or changing etc. From TRIZ, the IFR (Ideal Final Result), as shown in Figure 9: The Change Adherence Map, allows progress to be plotted against the road map that has been set. The Map shows that many organisations consider the change journey linear to their future desired position. However, in reality significant variance is common.

The Change Adherence Map is a description of the best possible solution for the problem, situation or contradiction, regardless of the resources or constraints of the original problem. IFR is one of the basic terms in TRIZ, and is used often in strategy and transformation workshops where the need to achieve change is essential, the motivation critical, the ideal final result understood, but the process, structure and methodology muddled.

The author is unaware, despite his wide ranging personal experiences and initial literature searches, of any current model(s) that can comprehensively track change in a dynamic real time format and achieve the objective described in the research aims.

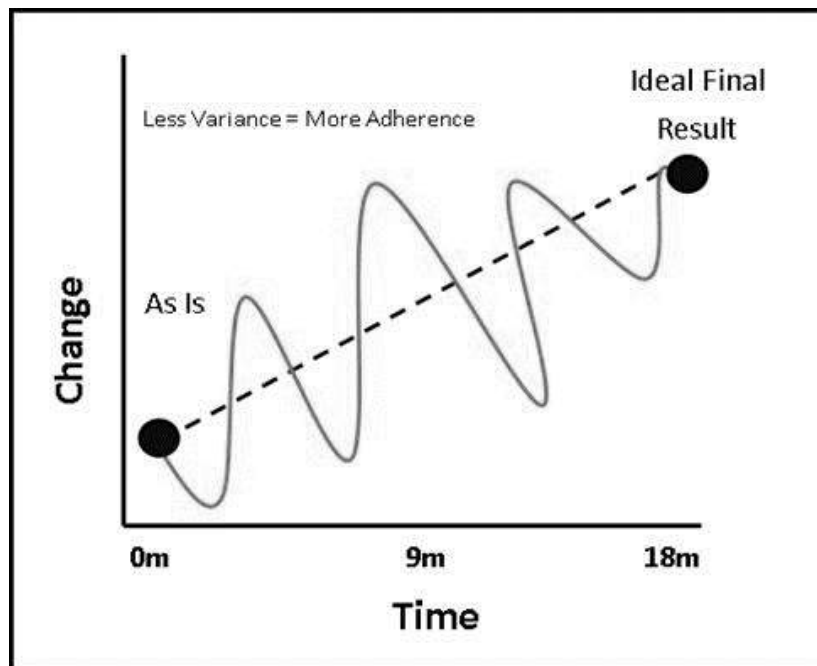


Figure 9: The Change Adherence Map (TRIZ)

In an issue of the *Academy of Management*, in an article entitled, “Where are the New Theories of Organization?” (Suddaby, Hardy and Huy, 2011), the authors make the point that the current theories of management and organisations are not able to fully capture organisational dynamics of change and their adherent complexity. Ployhart and Vandenberg (Ployhart and Vandenberg, 2010), state that we need to consider time and change in developing models. They go on to state that we must consider the inherent effect of change over time on causal relationships between two constructs of time and change, they conclude that

“...cross-sectional research will often provide little insight into how a variable will change over time and may quite often lead to inaccurate conclusions”

(Ployhart and Vandenberg, 2010)

Despite the lack of consensus within research regarding a framework for organisational change management, there is a developing thinking and agreement on two important issues. Firstly, it is agreed that the pace of change has never been so fast before, as stated by, (Carnall, 2007), (Luecke, 2003) and (Paton and McCalman, 2000), secondly, there is a shared view that change is driven by internal or external factors and comes in all designs, shapes, forms and sizes (Balogun and Hailey, 2008),

(Carnall, 2007), (Luecke, 2003). These two issues and trends affect every organisation in all industries. The challenge this poses is that whilst there are numerous models that address organisational performance at a moment in time, none of them capture what happens within the model as the change occurs in real time.

3.4 Research Aims and Objectives

The ultimate aim of this research project was to establish whether or not it is possible to facilitate change and transformation within an organisation, with a visual representation of where the organisation currently resides and its destination, within the context of transformative change. A critical output of the system had to be the ability to demonstrate that it is interactive, reactive and can be applied across multiple levels of complexity. It had to show an overall view of an organisation in addition to the various links, relationships and interacting variables within. Furthermore, it had to provide accurate measurements of the relationships between key characteristics in order to quantify the effect of change elsewhere within the system. As we have determined, all transformation and change needs to be operationally effective.

The author has been involved in the development of many change programmes that have included organisations that are global in reach, sit within FTSE 250, and employ thousands of people. As a consultant using qualitative research methodologies, the author was aware of the organisational knowledge he had of the artefacts, symbols, espoused values, climate, norms, culture, multiple stories told of change by others, how these stories are relayed with organisations, and how these narratives that are formed and shared with others are inevitably biased, as they are influenced by our position and experiences both as a researcher and practitioner. An important aspect of the research aims was that it challenged the author's own work practice area.

Therefore, in this research, the author allowed reflection time to challenge any biases that may have accumulated, to challenge any erroneous assumptions based on prior knowledge and / or experience (DeLyser, 2001), which may have informed the author's thinking, as well as any conclusions that may have been drawn that have not been adequately tested. In the many hundreds of change programmes with which the author has been involved, the following areas were highlighted for consideration and investigation:

- Most organisations are unhealthy in both climate and culture.

- Organisational DNA changes as companies grow, evolve, downsize and are subject to external influence.
- There are differences in opinion within the hierarchy of the change model.
- Change and innovation opportunities have been identified but, in many cases, not delivered.
- The lower you are in the organisation, the more micromanaged you feel.
- The decision rights are unclear in the organisation and the resistance to altering the status quo is high.
- There is a general failure to execute at the speed needed to achieve the goals outlined.

The goal of the research was to determine through academic research, alternative thinking, new analysis and alternative assumptions, the feasibility of building a multi-dimensional model. This proposed framework would firstly allow for the visual definition of an organisation, secondly, to identify its elements, and thirdly, to determine which of those elements affected the capacity for change.

To achieve this aim, the research had to validate if these assumptions were correct or incorrect, that there are more organisational characteristics than current models suggest, and that some of these characteristics could be consolidated under single terms. These assumptions would be proven or rejected by designing a framework that provided a design structure which will capture dominant internal and external forces influencing an organisation, occurring whilst the organisation attempted to implement change. The research must also provide the critical characteristics that must be identified and tracked, and attributes that need to be changed, with linkages and drivers defined and also a methodology that allowed an ongoing measurement of the impact of change across all the parameters of any change programme.

3.5 Contribution to knowledge

During times of organisational change and restructuring, it is vitally important that we can track any change programme and its impact. Within this context, the ability to 'manage' knowledge is important if the critical outcomes of business changed are to be realised. This paper builds on previous research investigating the approaches of

companies to change and change management. The area of successful change implementation in the context of metaphors and characteristics remains fairly untapped, and is therefore examined in-depth in this research. This research provides one of the first empirical investigations of the key metaphor relationships to critical characteristics in organisational change and a validation in real case studies through action based research.

The author's experience as a practitioner highlighted what he believed to be a significant gap in the change marketplace. The work focused on the metaphors, characteristics and model of change. The originality was represented by the depth of academic research, the inferences drawn, the links defined between the different elements, the hierarchy that needed to be considered, and the visual representations created. It was also represented by 30 years of front line practitioner experience with a level of mastery appreciated by peers and clients who were part of the analytical process.

An action-based research methodology was adopted to forensically research the academic literature, review and recalibrate any findings through significant case studies and establish a possible, robust model that was dynamic in its structure of change within organisations. Kurt Lewin is often cited in literature as the founder of action-based research, and Lewin describes it as,

"...research that will help the practitioner [to generate knowledge] about a social system while, at the same time, attempting to change it"

(Lewin, 1946)

Another who examined this area of research in depth Petre & Rugg stated,

"Making a significant contribution means adding to knowledge or contributing to the discourse – that is, providing evidence to substantiate a conclusion that's worth making."

(Petre and Rugg, 2010)

As such, characterising this contribution meant answering the question 'so what?' The question that this research was also trying to answer is: What benefit can tracking change in real time really bring? This research project clearly defined the key

measures for implementing and tracking organisational change in a unique and highly visual way that meets Carole Gray's criteria. As Gray states,

"Firstly, research which is initiated in practice, where questions, problems, and challenges are identified and formed by the needs of the practice and practitioners; and secondly, that the research strategy is carried out through practice, using predominantly methodologies and specific methods familiar to us as practitioners".

(Gray, 1998)

In the current volatile world, the need to understand and track change has never been more important. The need for change and evolution in the sector of organisational change is greater than ever because the forces buffeting organisations are volatile. We find ourselves in a fast-changing world, where the values and norms, society, and the economy are in a constant state of flux. This research created a framework to answer the following questions:

- Governing variables - What are the key variables that need to be considered in organisational change?
- Action strategies - What are the key actions that will be executed depending on the governing variables considered?
- Consequences - What will be the consequences of those actions that will contribute to the achievement of the organisational goals?
- Representation - How you can visually represent these variables in a new and dynamic way?

3.6 Reflective Learning

Education is not just about going to school and getting a degree. It's about widening our understanding of the world. Any investment in learning and acquiring new knowledge always pays a dividend. When this journey was started the author had no

idea how much would be learned. In Figure 10, the author who is an action based implementor, found great knowledge through the opportunity to learn, reflect, rethink, review, recalibrate, and reset his thinking. After 30 years of field work it was a refreshing to take the time to consider the learning and a humbling experience to learn how much more needed to be done.

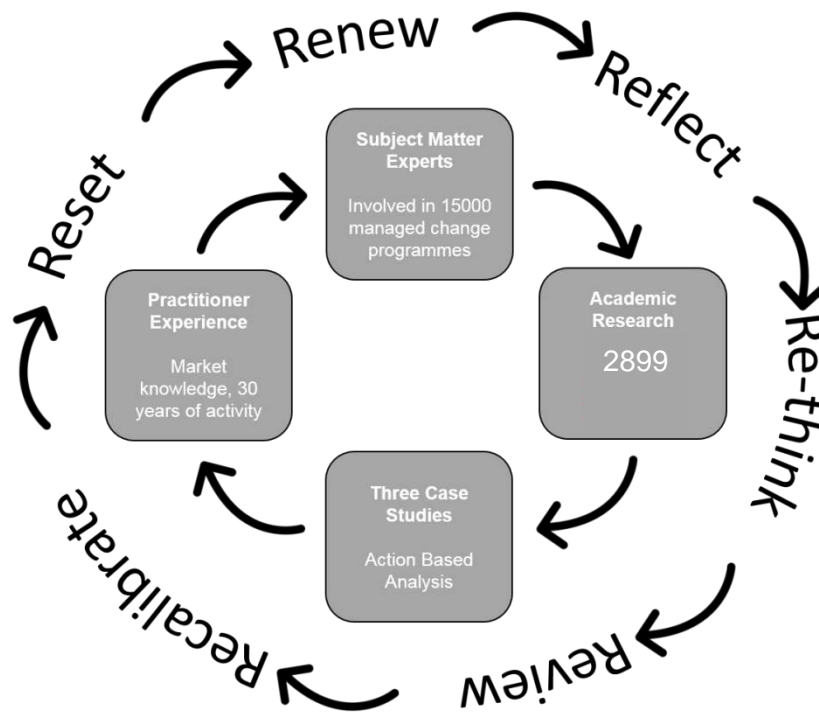


Figure 10: The Circular Nature of Action Based Research (Author's own work)

Figure 10: The Circular Nature of Action Based Research, summarises the approach adopted and shows how the author applied observation, action, reflection to all the activities within the research from the experiences gained, the literature review, the case studies and the overall research journey conclusions.

4.0 Literature Review

"I keep six honest serving men

(They taught me all I knew);

Their names are What and Why and When

And How and Where and Who"

(Kipling, 1902)

4.1 Introduction to Literature Review

The inclusion criteria in this thesis is reflective of the key questions that the author is attempting to answer by applying a systematic literature review and action based research. The inclusion / exclusion criteria at a glance, is as follows; that the paper of reference must have change and transformation as the core topic to help ensure that the research question is the focus of the review. Once this criteria has been met, further criteria are applied, for example, when identifying sources for the research, the differentiation is made between whether the source document focuses upon the application of change and transformation, or the execution. The key rationale for inclusion is to prevent bias so that the authors experience and knowledge is challenged. As a general rule, excluded sources were those where change and transformation were not organisationally focused, or where the elements of change and transformation were not considered

Organisations seeking to adapt during turbulent times cannot force change through purely technical approaches, such as restructuring and reengineering; they need a new kind of capability to reframe dilemmas, reinterpret options, and reform operations, and to do so continuously. The challenge evident in many studies is that few companies achieve all the benefits they so desperately need when re-organising. In 1995, John Kotter published what many consider to be the seminal work in the field of change management, *Leading Change: Why Transformation Efforts Fail* (Kotter, 1995). Kotter's 'call to action' cited research that suggested only 30 percent of change

programmes are successful; as many as 70% of change programmes do not achieve their intended outcomes (Balogun and Hailey, 2008). This is despite the acknowledgement of these companies that they require organisational change. This failure rate remains stubbornly high at 70% following two decades of intense change from corporate re-organisations, new software systems, and quality improvement projects (Maurer, 2010). An alternative approach is required. One such alternative is a diagnostic solution, designed to change business transformation processes by achieving radical improvement in performance across a number of key areas. The challenge in the application of this alternative approach is: regardless of the strategic agenda, dramatic growth, market repositioning, diversification or other competing forces that result in the need for change, how can outcomes be delivered that are quantifiable and significant?

An underlying issue that emerged through the research of current modelling was the lack of completeness. Of the change models studied during the research, the McKinsey 7S model is a perfect example of this. The primary academic sources which describe the McKinsey 7S model are Pascale & Athos (Pascale and Athos, 1981), and Waterman & Peters (Waterman and Peters, 1983). These authors were employed as consultants at McKinsey and Company; in the 1980s, they used the model to analyse over 70 large organisations. It has proved a successful model but it is not universally applicable, nor does it provide an accurate solution map for an organisation to achieve a desired goal.

4.2 Methodology of Literature Review

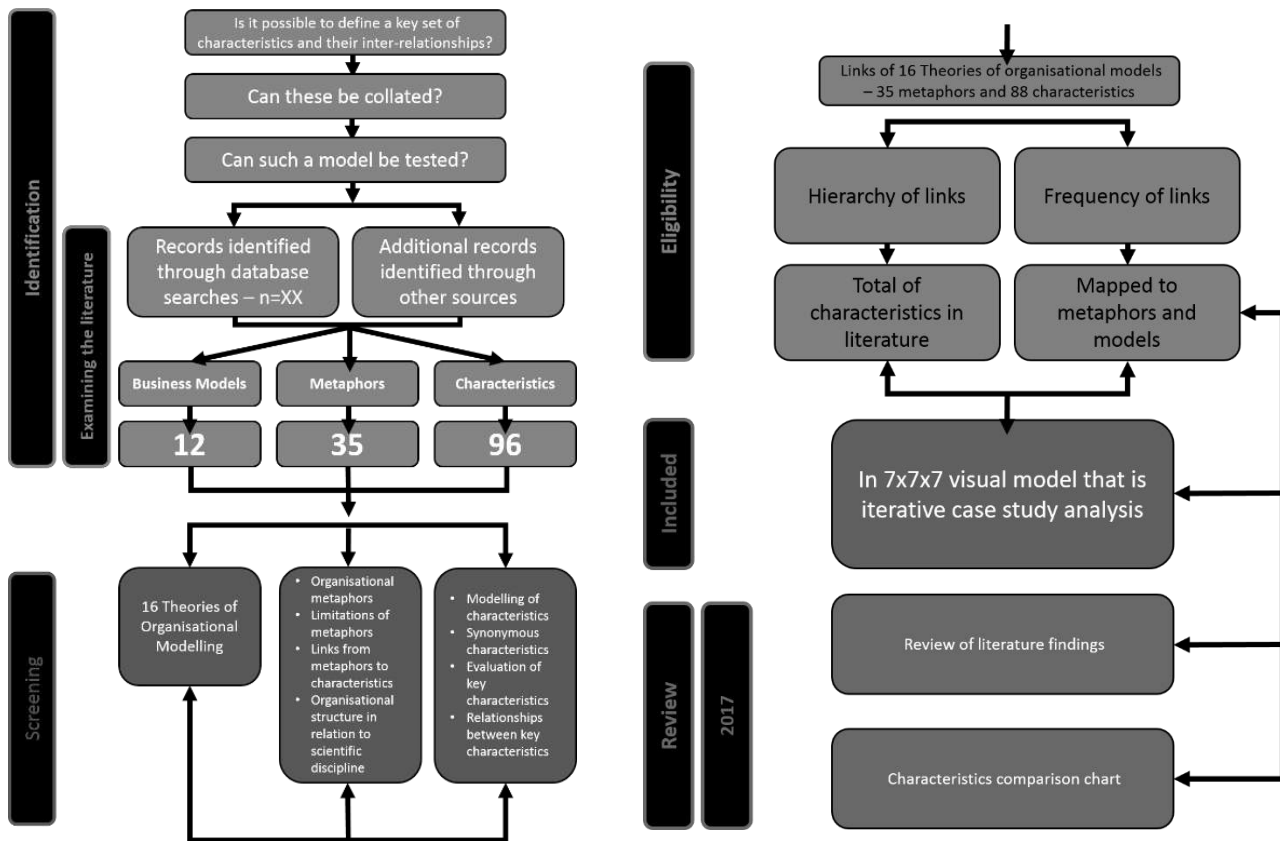


Figure 11: Methodology of Literature Review (Author's own work)

(Expanded version in Appendix 14)

4.3 Examining the Literature

Today the interconnectedness and interdependence of businesses, organisations, industries, economies and nations is evident and inevitable, resulting in a growing number of unions, alliances and joint ventures (Maani and Cavana, 2000). All kinds of government, public service and business entities are unable to operate in isolation as the implications of minor events are no longer individually confined. To be able to manage the complexities of any interconnected system, a change is required in how an organisation perceives its environment, problems and solutions. In the following section of the literature research, the different types of problems that organisations face and the different types of solutions that are required to resolve them are discussed.

Gaps in Literature and Action Based Research Analysis		
Gaps in literature	Objectives	Approaches to address gaps
Lack of empirical data on tracking change in real time	Proposing a model which allows for real time tracking	Action Based Research over three case studies to review academic research and practitioner experience
Lack of understanding of individual characteristics impact on the process	Identifying the impact of individual characteristics on each other	Individual-level analysis
Lack of understanding of the impact of characteristics and the interrelationships between them	Proposing a model which measures the impact of each critical characteristic on other characteristics and measures for productivity and maturity	Market based analysis

Gaps in Literature Research Analysis Outlines the Problem Being Addressed in the Literature Review

Table 1: Gaps in Literature Research Analysis

One definition of the term ‘problem’ is when an organism or an artificially intelligent system does not know how to proceed from a given state to a desired goal (Leonard, 2004). Thus, a problem can be described as any obstacle that makes it difficult to achieve an objective. There are three classifications of problem: closed, open and complex. Closed problems are usually clearly defined and have a determinable solution. A set of rules are followed and a solution is found. In contrast, open problems occur when there is more than one possible solution or outcome to the problem (Von Bertalanffy, 1968). The concept of open systems is that the same final state can be reached from different initial conditions and in different ways. This is the case for open systems, in so far as they attain a steady state. Open problems are therefore not clearly defined and they may be approached using multiple solving techniques. A by-product of an open problem is that it often leads to developments in other fields or even creates new fields of knowledge. This means that problems can be circuitous with no direct solution.

Many of today’s problems encountered by large complex organisations, such as health care systems, pertain to open problems with no fixed solutions. This has important ramifications for solution providers or consultancies. Complex problems are those whose variables are not interrelated in a one-to-one manner. They require more than one solution and these solutions are dependent on each other (Quesada, Kintsch and Gomez, 2005). Complexity theory concerns the interconnectedness of many parts that

make up the whole (Capra and Mansfield, 1976) which Ackoff (1981), describes as 'messes'. Decisions are often made about open problems that have no definite solutions and where outcomes are unique. However, complex problems do recognise the existence of interlinking problems to open ended solutions.

"Managers are not confronted with problems that are independent of each other, but with dynamic situations that consist of complex systems of changing problems that interact with each other. I call such situations messes. Problems are abstractions extracted from messes by analysis... Individual problems may be solved but if they are components of such a mess the solutions to individual problems cannot be added. Those solutions will interact. Problems may be solved; messes need to be managed. If we insist on the solution mode, analysis will be relegated to those relatively minor problems which are nearly independent, while messes go inadequately managed."

(Ackoff, 1981).

In addition, organisational problems are exceedingly complex by nature:

"In virtually every organisation regardless of mission and function, people are frustrated by problems that seem unsolvable. Every attempt to resolve a problem results in unintended consequences that dwarf the original one. Relationships worsen as people harden into opposing positions, each side insisting on its own solution, unwilling to consider alternatives. Too many problem-solving sessions become battlegrounds where decisions are made based on power rather than intelligence."

(Wheatley, 1999).

In summary, organisational problems are exceedingly complex, but we can identify a problem and define a path to a solution. We can identify a problem that we do not know how to solve, and more importantly, recognise that there are problems whose existence is unknown and consequently we may have no idea how to define a path to solve them. Approaches to solving problems are dependent on our mental models, worldview or paradigm. A paradigm refers to a thought pattern in any scientific discipline or other epistemological context and it occurs when many people share the same mental model (Kuhn, 1962). The paradigm should enable problem identification and consequently determine approaches and methodologies to facilitate diagnostic

solutions. Paradigms are dynamic, evolving and changing over time, thus leading to paradigm shifts.

There have been several major paradigms in the Western world in recent centuries. What came to be known as the classical or Newtonian paradigm was a deterministic, linear, reductionist view of the world, which believed in perfect harmony, equilibrium and eternal immutable laws (Capra and Mansfield, 1976). These laws could be verified through repeated experiments by a neutral observer. Although the paradigm was devised for the study of physics, it has been adopted by other disciplines including economics. One consequence of this mechanistic, reductionist paradigm was the separation of knowledge into separate disciplines, eventually leading to the concept of the 'expert' which has persisted for the last century.

For many years, authors have written about organisations and attempted to discover and describe factors that make them successful and to understand their behaviour. Joel Barker (Barker, 1993) uses the concept of a paradigm shift in his studies concerning factors which ultimately govern whether a business will succeed or fail. He describes successful businesses as those that can embrace paradigm shifts, by being adaptable and not being fixated on 'things that have worked in the past'. A paradigm can thus be described as double faced. It may be advantageous when facilitating an orderly progression of production, experimentation and progress. However, often scientific, religious and social paradigms can become intertwined and thus any paradigm shift is resisted. Under these circumstances, creative thinking can be stifled and new ideas are stillborn.

There are numerous approaches to measure success such as financial performance, stability, sustainability or viability. Furthermore, there are many theories which explain reasons governing why organisations behave as they do. The science of management has constantly sought the best approach to understanding reality, so that the patterns and structures of organisations can be more easily understood (Nelson and Winter, 1982). It is now widely believed that the Newtonian paradigm with traditional reductionist approaches to analysis, explained in terms of regular perception and linear thinking, are no longer able to explain organisational 'reality' (Sterman, 2000).

Action Research Model/Theory Collier, 1945 Lewin, 1946 French, 1969 Schein, 1980	Lewin's Model (1945) & Schein's Model (1980) (Adaption of Lewin's Model) *1958 Lippitt, Expanded Lewin	Kotter's Model (1996)	Jick's Model (2003)	Mento/Jones/Dirmdofer's Model (2002)	Shield's Model (1999)
Identify Problem(s)	Lewin – Step 1 Un-freezing	Establish a sense of urgency	Analyse the organisational need for change	The idea and its concept	Define the desired result and change plans
Consult with Behavioural Science (OD) Expert	Schein – Stage 1 Need for Change; People must be dissatisfied with the present.	Form a powerful guiding coalition	Create a shared vision and common direction	Define the change initiative	Create capability and capability to change
Gather Data & Begin Preliminary Diagnosis	Lewin – Step 2 Moving/ Changing	Create a vision	Separate from the past	Evaluate the climate for change	Design innovation solutions
Provide Feedback to Client	Schein – Step 2 Cognitive Restructuring	Communicate the vision	Create a sense of urgency	Develop a change plan	Select and deploy solutions
OD expert & client members diagnose problems	Lewin – Step 3 Refreezing change to make permanent.	Empower others to act on the vision	Support a strong leader role	Find and cultivate a sponsor	Reinforce & sustain business benefits
OD expert & client jointly plan actions	Schein – Step 3 Refreezing involves self and others.	Plan for and create short term wins	Line up political sponsorship	Prepare target audience, the recipient of change	
Take action	Schein – To be permanent, change becomes a part of self, relations with others and system in which people exist.	Consolidate improvements producing more change	Craft an implementation plan	Create the cultural fit – making the change last	
Gather data after action	Lippitt, Watson, Westley expand Lewin's Model	Institutionalise new approaches	Develop enabling structures	Develop and choose a change leader team	
Measure & Evaluate results	After Step 1, add Establish a change relationship		Communicate, involve people and be honest	Create small wins for motivation	
Feedback results	After Refreezing, add Achieve a terminal relationship		Reinforce and institutionalise the change	Constantly and strategically communicate the change	
Re-diagnose	Lippitt, et al. Five Phase Change Model (1958)			Measure progress of the change effort	
New action if necessary				Integrate Lessons learned	

Table 2: Comparison of Selected Change Models (Author's own work)

These realities are determined by the perspective, point of view, or world view of the organisation, i.e. the organisational paradigm. The alignment between the conceptual modelling language and the organisational paradigm is the extent to which language provides constructs to describe the elements of the organisational ontology. This paradigm, in the Kuhnian sense, encompasses an ontology - a description of entities that exist in the organisational domain. An organisation's management must develop a simplified 'view of the world' as their paradigm, which acts as a basis of activity (Schreyögg and Noss, 2000). Management control is then responsible for continually examining this model and enriching it with relevant new aspects to compensate for the selective perception of management (Gueldenberg and Hoffman, 2000).

Taking into consideration the importance of defining an organisational 'reality', the starting point for this research was, at a conceptual level, assessing metaphors used to describe organisations. Metaphors have the effect of both describing and

constructing these organisational realities. By naming a situation through a metaphor, we not only give it a rich identity but also engender actions that actually create the reality (Akin and Palmer, 2000). The role of metaphors in theory development has been a controversial issue in organisational science, however they do allow us access to more literal terms that eventually lead us to accurate understanding (Tsoukas, 1991). In the research carried out, the author first examined the work of James Geary and his book *'I Is An Other'* (Geary, 2012) where he outlined the role of metaphors in our lives:

"Metaphorical thinking – our instinct not just for describing but for comprehending one thing in terms of another, for equating I with another – shapes our view of the world, and is essential to how we communicate, learn, discover, and invent."

(Geary, 2012)

Similarly, there is a tendency in research on organisations to describe such organisations using metaphors. This captures the focus or thrust of the organisation's structure, culture or thinking. In the following section the most prevalent metaphors used in this context have been discussed.

4.4 Metaphors

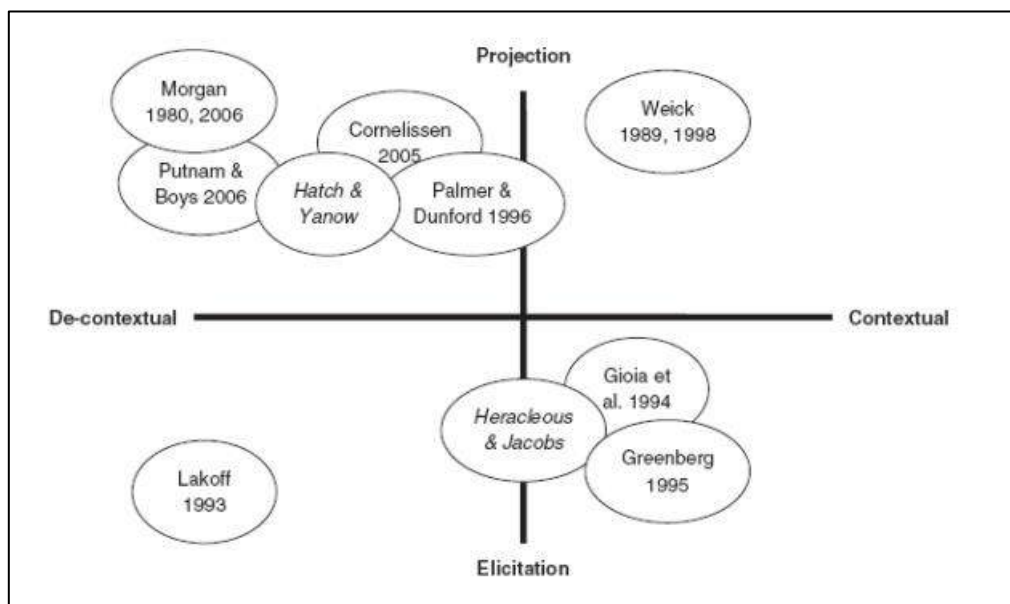
Transformation and change are essential to organisational survival, growth and productivity in the globalised environment. In order to bring about change to any environment effectively and sustainably it is necessary to understand that environment. Therefore, when applying change or transformation to a business organisation it is imperative to understand the business in its environmental context.

Metaphors are a key part of our language (Cornelissen, 2002, 2004, 2005; Morgan, 1998; Oswick, Keenoy, & Grant, 2002; H. Tsoukas, 1991) and they are principally a way of conceiving one thing in terms of another (Lawler, Lakoff and Johnson, 1983; Lakoff and Turner, 1989). They are used to enable and enhance our understandings by referring to,

"...something unfamiliar in terms of something familiar"

(Inns, 2002)

For decades, theorists have sought to apply metaphors to organisations in order to better understand how they work and to articulate their theories on management, communication and productivity. Cornelissen (Cornelissen, Oswick, Christensen, & Philips, 2008) acknowledged that given the size and diversity of the literature on metaphors in organisational research, a comprehensive review was beyond the scope of their article. Indeed, they project a total of ten different authors on their coordinate system Figure 12: (Cornelissen et al., 2008) Literatures on Metaphor in OR, nine of whom originate from the organisational research (OR) field.



Literature on metaphor in OR (Cornelissen et al., 2008)

Figure 12: Metaphors in Literature

“All theories of organisation and management are based on implicit images or metaphors that persuade us to see, understand, and imagine situations in partial ways. Metaphors create insight. But they also distort. They have strengths. But they also have limitations. In creating ways of seeing, they create ways of not seeing. Hence there can be no single theory or metaphor that gives an all-purpose point of view. There can be no ‘correct theory’ for structuring everything we do.”

(Images of an Organisation, Morgan, 1986)

The merits attributed to the use of metaphors include the ability to spot patterns and trends within an organisation. Specifically, the use of metaphors allows us to predict interactions and possible variables within an organisation. In building a business

strategy, many organisations have created corporate mission and vision statements but few have created a corporate metaphor.

'Presenting ideas and situations as metaphors gives the receiver the opportunity to understand the message being communicated to them, in their own terms. Perhaps more importantly any points raised, or criticisms voiced about the metaphor (with its inherent gaps, flaws etc.) isn't personal – the scope for taking offence is greatly reduced'

(Lawley, 2001)

Metaphors are often a process where people use their experience and insights, in the words of Morgan,

"...to understand one element of experience in terms of another"

(Morgan, 1996)

The use of metaphors in this context can also be disadvantageous, for example they can be restrictive and they are not applicable to every organisation. Due to these limitations, predictions may be inaccurate when applied to organisational behaviour. Different theorists have classified organisations using a variety of metaphors. Burns and Stalker distinguished between two types of organisations: organic and mechanistic (Burns and Stalker, 1994). They believed this provided a method to understand organisational fit to situations of change or stability. Pugh and Hickson (Pugh and Hickson, 1976) proposed a broader classification made up of seven contextual structures and Mintzberg (Mintzberg, 1979) introduced five structural configurations ranging from 'simple' to 'divisionalised' forms.

In Morgan's 'Images of an Organisation' (Morgan, 1986) he discussed the development of views of an organisation. His organisational metaphors identified that the vast majority of our organisational thinking is restricted to eight key metaphors. Morgan captured a number of perspectives that reflect how metaphors can impact organisations:

- The machine view which dominates modern management thinking and is typical of bureaucracies.

- The organismic view emphasises growth, adaptation and environmental relations.
- Organisations as information processors which can learn (brain metaphor).
- Organisations as cultures - based on values, norms, beliefs and rituals.
- In political organisations, interests, conflict and power issues predominate.
- Some organisations are psychic prisons in which people are trapped by their own paradigms.
- Organisations can adapt and change.
- Some organisations are instruments of domination with the emphasis on exploitation and imposing your will on others.

Morgan's work centred upon a very simple premise: that all theories of organisation and management are based on implicit images or metaphors that lead us to see, understand, and manage organisations in distinctive yet partial ways. Once a favoured metaphor is adopted, Morgan believed that thoughts and views would remain in this space. One of his key observations was the need to utilise all metaphors, to expand our thinking and appreciate the benefit of alternative perspectives.

Greenberg and Boland (Greenberg and Boland, 1988) address the observation that we instinctively use metaphors to conceptualise the most ambiguous and difficult situations. This approach is useful as it encourages the identification of key concepts of an organisation which we can relate to something we have previously experienced. This work was in response to management problems, thus was not applied when conceptualising whole organisations. This work aligns with that of Morgan as it has also identified the restrictions imposed by metaphors and the need for creativity to prevent these metaphors from restricting change.

4.5 Typical Organisational Metaphors

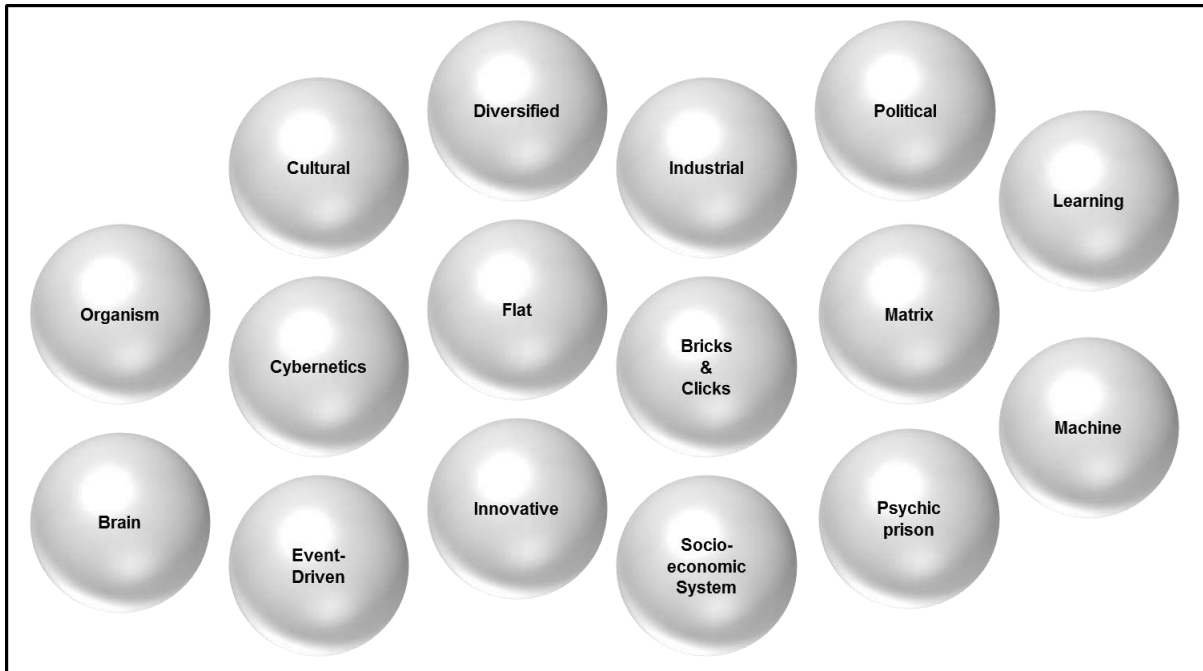


Figure 13: 16 Typical Organisational Metaphors (Author's own work)

From the author's practitioner experience, research and fieldwork, the following common organisational metaphors have been observed, which support some of Morgan's conclusions.

4.5.1 Machine

The machine metaphor describes an organisation as a mechanical object with particular elements representing different parts of the machine. This metaphor in effect dehumanises the human element of an organisation. It was previously the mainstream metaphorical view of business, stemming from the era of Taylorism (developed by Frederick Taylor (Taylor, 1911) - a scientific management system), and is suggestive of an efficient and process driven closed system. Organisations that are designed and operated as if they were machines are generally referred to as bureaucracies (Morgan, 1986) and are typically hierarchical. In the machine, the parts (persons, groups or real machines) complete their pre-programmed jobs, interlocked in a perfectly timed manner and standardised to reach product compatibility and well-defined product quality (Gazendam, 1993).

4.5.2 Organism

Describing an organisation as an organism implies that it has a web of processes, structures, DNA and environmental factors which all contribute in shaping how that organism lives. It can be described as a fluid network forming an organisation that engages with the environment.

“An organism is an open system adapting to its environment and proactively creating its environment, and at the level of the inter-organisational ecology in which organisations are born, grow, decline and die, and in which evolutionary patterns can be detected”

(Gazendam, 1993)

4.5.3 Brain

The brain metaphor relates to an organisation capable of thought and ideas, for example, inventiveness and passion. These organisations are characterised by their effectiveness in information processing, problem solving and learning based on the cognitive characteristics of people in the organisation (Gazendam, 1993). Central teams make decisions and direct reflexes, allowing for organisational adaptability. Feedback systems play a central part in the operations (Beer, 1986). Morgan stresses the holographic character of the brain, that is, the capability of each of its parts to contain all essential information of the whole.

4.5.4 Psychic prison

The psychic prison metaphor brings a set of perspectives that enable us to explore unconscious processes that trap people and organisations within their existing paradigms. It shows that our understanding of an organisation is too rational, it draws attention to ethics, power relations, and it shows up barriers to innovation and change. It also has limitations, however, namely that it ignores ideologies that control and shape organisations and places considerable emphasis on cognitive processes. Whereas exploitation, domination and control are rooted in material life, this metaphor encourages speculation, and it raises the risk of mind control (Morgan, 1986).

4.5.5 Cultural

According to the culture metaphor, organisations can be seen as socially constructed realities based on communication and cognition of people in the organisation. The process of the creation and maintenance of organisations as socially constructed realities is described by Weick's enactment theory, stating that we proactively shape and structure the reality in which we live (Wicker and Weick, 1980), thus suggesting an overlap between culture and strategy. This refers to organisations that are being influenced by, or are actively influencing, trends. It is linked to a value driven market. Communication and technology are seen as key factors to success. Organisations described by this metaphor can be seen as 'mini societies'.

In his third edition of Model of Organisational Culture (Schein, 1992), Edgar Schein describes the transformation from the abstract concept of culture into a practical tool that can be used to understand the dynamics of organisations and change. He also tackles the complex question of how an existing culture can be changed, often considered one of the toughest challenges of leadership.

4.5.6 Cybernetics

This metaphor encourages us to view organisations as "patterns of information". Negative feedback in this pattern can be a source of learning about how to keep the overall system in homeostatic equilibrium (Drucker, 1993).

From a management perspective, cybernetics is the science of effective organisation applicable to complex systems (Beer, 1986). They have the capacity to sense, monitor and scan significant aspects of their environment; they are able to relate this information to the operating norms that guide system behaviour, and they must be able to detect significant deviations from these norms and be able to initiate corrective action when discrepancies are detected (Morgan, 1986). This is characterised by a negative feedback loop which specifies constraints rather than goals. Therefore, the metaphor of a cybernetic organisation is one that focuses on the science of communication and control.

4.5.7 Event-Driven

This is a description of an organisation that utilises both internal and external events to move forward. They are responsive and require defined decision-making procedures as delays are damaging to the organisation and up-to-date information is paramount for its success. For example, organisations that have adopted a just-in-time philosophy heavily rely on optimising their event-driven processes:

“Organisations that run distributed supply chains with Just-in-Time inventory practices have the need to continually monitor their inventory levels and correlate them to the bill of materials and replenishment requests. Ensuring a balanced flow of parts and inventory throughout their entire supply chain is a critical business requirement for a global supply chain.”

(Oracle White Paper, 2009).

These types of organisations are believed to be reactive, opportunistic, defensive and offensive – both in parallel and sequentially.

4.5.8 Matrix

The matrix metaphor refers to an organisation that has a combination of functional and divisional structures. This type of organisation intends to divide resources across divisions whilst maintaining a high level of adaptability to aid fast decision-making:

“The obvious organisational solution to strategies that required multiple, simultaneous management capabilities was the matrix structure that became so fashionable in the late 1970s and the early 1980s. Its parallel reporting relationships acknowledged the diverse, conflicting needs of functional, product, and geographic management groups and provided a formal mechanism for resolving them. Its multiple information channels allowed the organisation to capture and analyse external complexity. And its overlapping responsibilities were designed to combat parochialism and build flexibility into the company’s response to change.”

(Barlett and Ghoshal, 1990)

The organisation benefits from sharing scarce resources and managing multiple product lines that require high co-ordination and / or high adaptability.

4.5.9 Diversified

A diversified organisation is one that is usually large in terms of size and geographical presence, with various unrelated businesses. This describes companies with multiple arms, products, diverse management expertise and different end users. The key benefit of a divisional structure is that it allows line managers to maintain control and accountability and also, with day-to-day decision-making decentralised, the central team can focus on "big picture" strategic plans (Mintzberg, 1979). This type of organisational structure does have some disadvantages, however, the most significant being the duplication of resources and activities. Also, these structures are vulnerable to conflict as the various autonomous divisions within the structure can be required to compete for these resources.

4.5.10 Flat

This organisation is a one-tier system; a collaboration where everyone is involved in decision-making. There are no discernible leaders and all members have shared responsibility. In direct comparison with the diversified organisations, flat organisations are usually small in scale and tend towards a creative type of organisation. The lack of middle managers means that decision making is decentralised, enabling a fast response to customer or supplier demands. These structures become harder to maintain if the company grows and the need for more traditional structures increases. Rather than rewarding high performers with managerial responsibilities, which often drives people further away from the job they are actually good at, they are rewarded with responsibilities closer to the work (Fried, 2011). However, due to traditional mindsets, this lack of vertical promotion can also be problematic and lead to staff disengagement.

4.5.11 Innovative

An innovative organisation typically leads in transformational practice, implemented via a formatted structure of various factors and principles. Growth is permitted whilst maintaining an equal balance of innovative practices. Adaptability is a typical strength associated with this type of organisation. Controlling innovation requires an understanding and prediction of what future market needs or demands will be, rather than an understanding of present needs. This is analogous to shooting a moving target; one must shoot not at the current location of the target, but where the target will be. These types of organisation have reliable methods to accurately identify future

market needs, which makes control of the process of innovation theoretically impossible.

4.5.12 Learning

The learning metaphor refers to an organisation which enables the continuous transformation and refinement of members. Learning organisations are those organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the 'whole' together (Senge, 1990). The organisational strength lies in the application of key knowledge where it is most required. A typical learning organisation is forward thinking and precise in rational behaviours. According to Senge,

“There are four challenges in initiating changes. There must be a compelling case for change. There must be time to change and help during the change process. Lastly, as the perceived barriers to change are removed, it is important that some new problem, not before considered important or perhaps not even recognised doesn't become a critical barrier.”

(Senge, 1990)

4.5.13 Industrial

This metaphor is used to describe organisations that have developed over many years in terms of their structure, boundaries and markets. The theory analyses the markets within which the organisations operate and investigates the outcomes of these structures with regard to price discrimination, product differentiation and exit or entry barriers. The metaphor describes the promotion of industrial values that deal with the economics of strategic behaviours of firms (Tirole, 1988). Industrial organisations are characterised by independent problem solving and data analysis. They are innovation-driven regarding product development and pricing, behaviour and psychology. On one plane, the field is abstract, a set of analytical concepts about competition and monopoly. On a second plane, the topic is focused on real markets, teeming with the excitement and drama of struggles among real firms (Shepherd, 1980).

4.5.14 Bricks and Clicks

This describes a type of organisation that has emerged alongside the development and integration of the internet into the commercial world that integrates both offline (bricks) and online (clicks). This metaphor is typically assigned to retailers who have extensive logistical capacity and supply chains. The challenges associated with new technologies have forced more traditional companies to address some fundamental questions, including: What do the internet and its associated technologies mean for our business, our competitive strategy and our information-systems strategy? (Willcocks and Plant, 2001). This relatively new type of organisation offers customers a varied choice and competitors are usually ousted by virtue of strong brand relations. Bricks and clicks are thought to have revolutionised the retail / business area of the economy.

4.5.15 Socio-economic System

This metaphor relates to studies from the social sciences in relation to analysing and critiquing the economic variants in the world in general. Socio-economic systems are highly complex systems with multiple agents and a large number of interacting components. The emergence of collective phenomena from individual or microscopic interactions is the main focus (Schweitzer, 1997). Socio-economic values are measured via social and collaborative practices by adhering to social norms. The organisations are typically visionary and structured. Communication is spread across each faction of the social and economic world. Power is principally exemplified within the organisations by the process of control.

4.5.16 Political

The political organisation reflects systems of government which vary according to the modes of political rule employed. This style of organisation generally relies upon the practices of democratic procedures. They rely on a hierarchical structure, for example linking central, regional and local divisions. Political based structures harness various factions of power, for example legitimate and illegitimate. Organisations falling under this metaphor are seen as multi-agent systems guided by their interests and struggles for power (Gazendam, 1993).

4.5.17 List of all Metaphors

For a full list of all 35 metaphors identified during the literature review process please refer to Figure 15 List of all Metaphors Established in Research (Appendix 1 of this document).



List of all Metaphors Established in Research (size relative to frequency)

Figure 14: Metaphors Established in Research (Author's own work)

4.6 Limitations of Metaphors

Organisations typically emerge from the interaction of individuals and their conceptions, and are rarely established as ends in themselves (Katz and Gartner, 1988; Sarasvathy, 2001, 2004; McAuley, Johnson and Duberley, 2007). Metaphors play a paradoxical role: they are vital to understanding and highlighting certain aspects of organisations, while at the same time they restrict understanding by side-lining or ignoring others (Lawley, 2001). Akin and Palmer (Akin and Palmer, 2000) suggest that many people hold a metaphor that accurately describes their perception of the organisation in which they work. The authors identified four drawbacks or 'traps' applicable to the use of metaphors:

- Metaphors can be used inappropriately, insufficiently or inaccurately describe a situation and lack familiarity with the people within the organisation. The use of a metaphor can also determine the way people perceive, remember, and analyse information they receive.
- The metaphors can carry ambiguous meanings leading to confusion and lack of consistency. However, any single metaphor limits people's perception by blocking and distorting the information encountered. Much of the conflict in the organisation is caused by people holding different metaphors, oblivious to the fact that they behave in accordance with their metaphor.
- When using metaphors in a change process, there are dangers of assuming that people will buy into and understand new metaphors. Akin and Palmer (2000) point out that the strength of the conveyor of the message often determines how people react to a metaphor and its legitimacy.
- The use of limited metaphors to describe an entire organisation can lead to the shutting out of alternative views for certain problems. However, Akin and Palmer conclude that,

'...effective managers are able to utilise multiple metaphors to comprehend and manage organisational situations'.

(Akin and Palmer, 2000)

"At some point, playing with a metaphor reveals where it breaks down because metaphors are partial. Penicillin can cure a fever, but there may be no such wonder drug for organisational woes, precisely because organisations are not organisms literally. There are no reliable chemical interactions that occur in response to an intervention because people in complex relationships inhabit organisations. They do not respond as predictably as chemical systems. However, even where a metaphor breaks down, there are lessons to learn. Precisely the fact that there is no organisational analogy to the wonder drug can make people think more critically about easy remedies that are offered for organisational problems."

(Ancona, 1996)

4.7 Reflective Learning

Metaphors are critical to helping us frame or constitute the realities we live in. Metaphors give us all as individuals, groups, teams and organisations, a sense of direction, history and values. They help answer questions about the organisation such as, “What is it?” “What am I a part of?” “What am I participating in? A machine, a process, an organism?”. They help frame mindsets and paradigms, but also can fix these with the result that what we think, we become. Trying to change this means we must reframe our paradigms. Similarly experience teaches you answers to questions that might be right at one time, but need to be constantly challenged in this fast changing world.

4.8 The Link from Metaphors to Characteristics

The most common and popular definition for a metaphor is based on a cognitive approach, considering a metaphor as a basic mental operation. It was formulated by Lakoff and Johnson, who wrote,

“A metaphor is a rhetoric figure, whose essence is understanding and experiencing one kind of thing in terms of another.”

(Lakoff and Johnson, 2000)

Whilst metaphors show important classifications of how different organisations are conceptualised, their limits have been documented in the previous section. The question then becomes ‘how can these concepts be analysed further to provide a base-line definition of an organisation in its simplest, purest, most fundamental form?’ The conceptual analysis of Morgan’s metaphors has been used by Gazendam to compare the theoretical contents in relation to six subjects, as shown in Table 3 below.

Subject	Machine Metaphor	Organism Metaphor	Mind Metaphor
formal authority structure	++	+	++
organisation of work	++	+	
personnel policy	++		
communication and decision-making system	+	+	++
resource control and resource dependency			++
legitimation of power	+		+

Table 3: Subject to which metaphors pay attention (Gazendam, 1993)

This table represents how Gazendam classified organisations under three metaphors and shows the influence of the metaphors on a number of organisational characteristics. Appendix 2 details the characteristics abstracted in relation to the metaphors listed throughout section 4.5 of this document.

4.9 Organisational Structure in Relation to Scientific Disciplines

People use metaphors to put things in order – to bring the shapes and systems that surround them into focus, and to make them familiar. Therefore, a codification process should create a greater understanding of the metaphorical terms used to describe an organisation; providing a base-line definition of the organisation in its simplest, purest, most fundamental form. From this point, it is possible to conceptually build upon these fundamental blocks that codification identifies and describes. Moreover, codifying an organisation at the micro level facilitates real, definitive change. When discussing

organisational principles, the same sciences are referenced time and time again and so it is these key fields that will be discussed.

4.9.1 Biology

Biology is perhaps the most common association when discussing 'organisations' in terms of transformation or change. For example, the metaphors used by Gareth Morgan and Henry Mintzberg (Mintzberg, 1979; Morgan, 1986), such as 'organism' and 'brain', allow for change in evolutionary terms or environmental adaptation. It is widely accepted as a relevant conceptualisation as environmental factors are particularly important in shaping how an organisation should operate to survive and succeed. In biological terms, codification is analogous with the Human Genome Project, a collation of every gene within human DNA represented by combinations of nucleotide bases.

“Comparing the human genome sequence with those of other organisms helps us to identify regions of similarity and difference, providing critical clues about the structure and function of human genes.”

(Collins, 2013).

With reference to organisational principles, mirroring this approach could prove useful in gaining an in-depth understanding of an organisation. To do so, every single characteristic must be identified, much like the nucleotide bases, to allow for the grouping of associated characteristics like genes and discard the niche (or dormant) ones. The Human Genome Project has allowed biologists to better understand how DNA is built and why certain characteristics are expressed. It has also enabled scientists to affect change within DNA as the map provides a blueprint to work from. Similarly, from an organisational perspective it could be possible to combine this blueprint with organisational expertise to identify where specific attention must be paid when actioning change.

4.9.2 Mechanics

In addition to biology, mechanics is another subject frequently discussed in the context of organisational theory. This is due to the relationship with the machine metaphor in which an organisation seeks efficiency and regularity. Codification in a mechanical sense refers to the identification and breakdown of individual components to

understand how they work right down to the most simplified form. The mechanical approach is very structured as components in a machine do not evolve or change form, while their interactions remain constant throughout the life of the machine.

For this reason, the mechanistic application to organisational theory can be considered too rigid. However, if codification could provide an understanding of each individual component and how it is embedded within the larger structure, this could enable the optimisation of efficiency, identification of any problems and status monitoring. Organisationally this would have much the same effect as that of a DNA code by providing a blueprint from which to base further analysis.

4.9.3 Cybernetic

Cybernetics links to organisational principles through communication-orientated structures and their reaction to environmental changes. Furthermore, cybernetics concerns the effectiveness and efficiency with which an organisation can achieve this.

“The cybernetic approach differs from that of traditional science because it studies the behaviour of wholes and parts in interaction rather than of parts isolated and measured. As such, it can be used to handle situations of great complexity which operate on the basis of probability and include large areas of uncertainty. In addition, it rejects the claim of complete 'objectivity' in favour of the embedment of the observer in the situation being observed, through the choice of models and measurements and the ethical implications of the choices which are made.”

(Leonard, 1990).

The cybernetic codification of an organisation would therefore identify components which monitor change, which are responsible for all communication, which make decisions and which ultimately execute the organisational response based on these factors. Such codification would liken an environmental factor to a reaction, with an understanding of the response mechanism. Applying this to an organisation would elucidate an understanding of the internal process between factor and reaction: fundamental to any enhancement of, or improvement in, performance. Without this mechanistic insight, it is possible that responses would be entirely reactive with no predictive capacity, and practitioners would be mere spectators of organisational activity.

4.9.4 Engineering

Distinct from mechanics, engineering is a separate discipline from which to study organisational theories with respect to the codification of characteristics. Codification at an engineering level is a breakdown of the macro to the micro, for example a stock list of components. The codification process should identify all materials and form a blueprint describing assembly at the most basic of levels, enabling engineers to understand what they are working on, identify which components they are concerned with and how they assemble together. It is only at this level of understanding that the engineer is able to perform optimal modification or repair. Indeed, models such as the McKinsey 7S can be considered crude forms of engineering. However, their lack of codification is a common, underlying flaw in such models.

4.9.5 Chemistry

Much like DNA structures, a chemical formula allows a chemist to understand all aspects of a compound. Current models can be associated to functional groups within a formula; large, significant components responsible for almost all properties of the whole. However, what they fail to do is break down to the most basic level, which are the individual elements. Preliminary identification of the basic elements allows a chemist to build the compound and pinpoint the functional group, what is responsible for the optical properties and for the general structural properties. As with a compound, the identification of individual elements in an organisation allows us to build from the bottom up to identify the characteristics that shape and define the 'organisation' and conversely eliminate secondary or peripheral characteristics.

4.9.6 Epigenetics

The understanding of how various genes and histones interact to form the overall macromolecular DNA structure, and how this can directly influence expression of various genes, has often been used to understand organisational theory. Epigenetic links are made with models that state an understanding of the connections between various elements of 'organisations' and how changes in one can impact upon another. This is an accurate observation but is again done at a macro but not a micro level. It is not sufficient to identify links between elements if these elements are themselves a combination of various characteristics.

If codifying at an epigenetic level it is possible to understand the biological and chemical basis of the structure and therefore, as with many other principles previously discussed, determine what is integral to the overall structure. The strength of the discipline of epigenetics lies in the understanding of how each characteristic fit into an organisation, but prior to doing this all characteristics must be identified to ensure an all-encompassing structure is built.

4.10 Theory of Organisational Modelling

The business model has been the focus of substantial attention in recent years. Researchers (and practitioners) have yet to develop a common and widely accepted language that would allow researchers who examine the business model construct through different lenses to draw effectively on each other's work (Zott, Amit and Massa, 2010). However, there are some emerging themes such as found in the author's experience, field work and research:

- Models are centred on a focal organisation, but the boundaries can spread further than this.
- Models tend towards a holistic systems approach to explaining how companies do business.
- Organisational processes play an important role in the conceptualisation of business models.
- Business models seek to explain both value creation and value capture.

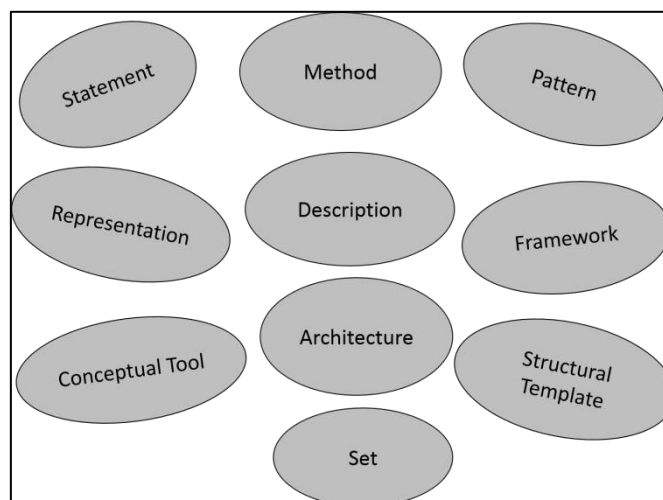


Figure 15: Organisational Modelling Emerging Themes

Business models are referred to in current literature in a variety of ways. Models can also be represented through a mixture of textual, verbal, graphical representations, schematics, object, relationships and flows or maps. For example, a value map depicts all key classes of participants (partners, customers, suppliers) and value exchanges between them (tangible and intangible benefits and knowledge) (Zott, Amit and Massa, 2010). A business model ontology (BMO) is a conceptualisation and formalisation of the essential components of a business model into elements, relationships, vocabulary and semantics (Osterwalder, 2004).

Hamel's work with Prahalad (Prahalad and Hamel, 1990) highlighted the concept of corporate competencies by arguing that organisational focus had been on the returns from individual business units as opposed to the conditions, processes and competencies which enabled those returns. They defined 'core competencies' as the collective learning in the organisation and, particularly, the co-ordination of diverse production skills and integration of multiple streams of technologies.

“Core competencies can be defined by what it is they do better than others. Viewing the organisation as systems of activities and building blocks means asking:

- *How does activity X significantly improve the end product for the customer?*
- *Does activity X offer access to a range of applications and markets?*
- *What would happen to our competitiveness if we lost our strength in activity X?*
- *How difficult is it for others to imitate activity X and compete with us?”*

(Prahalad and Hamel, 1990)

In order to realise the potential that core competencies create, Hamel and Prahalad delivered that the individuals within an organisation must have the imagination to visualise new markets and have the ability to move into them, ahead of the competition. The process through which an organisation releases corporate imagination is therefore key to core competencies and effective competition. Further, one of the words that recurs consistently through Hamel's writing is 'revolution'.

A number of competencies are considered to be generic and overarching across all occupations. Reynolds and Snell (Reynolds and Snell, 1988) identify meta-qualities

(creativity, mental agility and balanced learning skill) which are proposed to reinforce additional qualities. Hall (Hall, 1986) uses the term meta-skills, defined as skills in acquiring other skills. Linstead (Linstead, 1991) and Nordhaug and Gronhaug (Gronhaug & Nordhaug, 1992) use the term meta-competencies to describe similar characteristics. The concept of meta-competence falls short of providing a holistic, workable model, but it does suggest that there are certain key competencies that overarch a whole range of others in a hierarchical manner. Henry Mintzberg in 'The Rise and Fall of Strategic Planning' (Mintzberg, 1994) defined organisational structure as,

"...the sum total of the ways in which it divides its labour into distinct tasks and then achieves coordination among them".

(Mintzberg, 1994)

The organisational configurations framework of Mintzberg is a model that describes six valid organisational segments:

- Operating core: the people directly related to the production of services or products.
- Strategic apex: serves the needs of those people who control the organisation.
- Middle line: the managers who connect the strategic apex with the operating core.
- Technostructure: the analysts who design, plan, change or train the operating core.
- Support staff: the specialists who provide support to the organisation outside of the operating core's activities.
- Ideology: the traditions and beliefs that make the organisation unique.

There is, however, some doubt about the practicability of breaking down the entity of management into its constituent behaviours (Burgoyne, 1989). This suggests that the practice of management should be considered only from a holistic viewpoint and reinforces the need for a systems approach to business modelling.

4.11 Key Organisation Models Relied Upon

Fast-moving global markets and digital disruption have forced companies to innovate rapidly, adapt their products and services, and stay closer than ever to local customers. This has prompted a resurgence of interest in business organisation. Organisational theories study how people act within organisations, the principles that guide successful business management and how organisations interact with each other. They encompass many viewpoints focusing on various areas such as communication, economics, social and business interactions, individual and industrial psychology, management and leadership. Frederick Taylor (Taylor, 1911) developed scientific management theory (often called "Taylorism") at the beginning of the early 20th century. His theory had four basic principles:

- 1) Find the one "best way" to perform each task,
- 2) Carefully match each worker to each task,
- 3) Closely supervise workers, and use reward and punishment as motivators, and
- 4) The task of management is planning and control.

4.11.1 Classical

Classical organisation theory was developed in the first half of the 20th century as a way of bringing together scientific management, bureaucratic theory and administrative theory. Scientific management focused on getting the best people and equipment and scrutinising each production task. Max Weber (Weber, 1947) expanded on Taylor's theories, and stressed the need to reduce diversity and ambiguity in organisations. The focus was on establishing clear lines of authority and control. Weber's *bureaucratic theory* emphasised the need for a hierarchical structure of power. It recognised the importance of division of labour and specialisation. A formal set of rules was bound into the hierarchy structure to ensure stability and uniformity. Weber also put forth the notion that organisational behaviour is a network of human interactions, where all behaviour could be understood by looking at cause and effect.

4.11.02 Bureaucratic

Bureaucratic Theory involved establishing a hierarchy to describe the division of labour in a company and recognising the importance of specialisation. *Administrative theory* (i.e., principles of management) was formalised in the 1930s by Mooney and

Reiley (Mooney and Reiley, 1931). The emphasis was on establishing a universal set of management principles that could be applied to all organisations.

4.11.3 Administrative

Administrative theory worked to establish a set of management principles that applied to all organisations. Classical organisation theory didn't work because it described motivation only as a function of economic rewards.

4.11.4 Neoclassical

Neoclassical Organisation Theory. One of the first experiments that challenged the classical view was conducted by Mayo and Roethlisberger in the late 1920's at the Western Electric plant in Hawthorne, Illinois (Mayo, 1933). While manipulating conditions in the work environment (for example, intensity of lighting), they found that any change had a positive impact on productivity. The act of paying attention to employees in a friendly and nonthreatening way was sufficient by itself to increase output. Uris (Uris, 1986) referred to this as the "wart" theory of productivity. Nearly any treatment can make a wart go away: nearly anything will improve productivity. "The implication is plain: intelligent action often delivers results" (Uris, 1986, p. 225). Improvements in organisation theory led to consideration of the work environment. Productivity improves in an environment with coherence of values and purpose. Organisations can succeed with a cohesive environment where subordinates are accepting of managerial authority. The key to this theory is maintaining equilibrium. Of course, there can be unpredictable responses to managerial authority.

4.11.5 Contingency

Contingency Theory deals primarily with conflict, which previous theories considered something to be avoided at all costs. Conflict is unavoidable, but according to contingency theory, it is manageable. Organisations evolve to meet their own strategic needs in rational, sequential and linear ways. Adapting to changes in the environment is important to managerial and organisational success. Managers must be able to make decisions contingent on current circumstances. Chandler (Chandler, 1962) studied four large United States corporations and proposed that an organisation would naturally evolve to meet the needs of its strategy, that form follows function. Implicit in Chandler's ideas was that organisations would act in a rational, sequential, and linear

manner to adapt to changes in the environment. Effectiveness was a function of management's ability to adapt to environmental changes.

4.11.6 Systems

Systems Theory describes the interrelatedness of all parts of an organisation and how change in one area can affect multiple other parts. Systems may not always interact in a linear manner. Small changes in one part may have large impact upon another, while large changes in one area may only have a small impact upon another. Organisations act as systems interacting with their environment. Any equilibrium is constantly changing as the organisation adapts to its changing environment. Systems theory was originally proposed by Hungarian biologist Ludwig von Bertalanffy in 1928, although it has not been applied to organisations until recently (Kast and Rosenzweig, 1972). The foundation of systems theory is that all the components of an organisation are interrelated, and that changing one variable might impact many others. Organisations are viewed as open systems, continually interacting with their environment. They are in a state of dynamic equilibrium as they adapt to environmental changes.

Senge describes systems thinking as:

“Understanding how our actions shape our reality. If I believe that my current state was created by somebody else, or by forces outside my control, why should I hold a vision? The central premise behind holding a vision is that somehow I can shape my future, Systems thinking helps us see how our own actions have shaped our current reality, thereby giving us confidence that we can create a different reality in the future.”

(Senge, 1990)

4.12 Business Models

There are many models addressing different fields of business and the structures necessary to support different strategies. In his book *‘Team of Teams’*, General Stanley McChrystal (McChrystal, 2015) describes how the US military’s hierarchical command and control structure and models hindered operational success during the early stages of the Iraq war. After watching Al-Qaeda disrupt his army and win battles, McChrystal’s solution was dramatic: Decentralise authority to highly trained and empowered teams and develop a real-time information and operations group to

centralise information and provide all teams with real-time, accurate data about war activities everywhere. Yet the traditional models, such as those listed in Figure 16, are still applied in many organisations.

- Maslow's Hierarchy of Needs (Maslow, 1943)
- The Action Research Model/Theory (Collier, 1945, French, 1969 and Scein, 1980)
- Lewin Three-Step Model (Lewin, 1951)
- Balanced scorecard (Kaplan and Norton, 1992)
- Profiles in Organisational DNA (Booz Allen Hamilton)
- Deloitte Shareholder Process
- McKinsey (Peters & Waterman)
- Game Theory
- Triz
- Extension of Lewin's Change Model (Schein, 1980)
- Model to a Five-Phase Model (Lippitt, Watson and Westley, 1958)
- Gestalt Institute paradoxical Theory of Change (Arnold Beisser, M.D. 1979)
- Rick Maurer and Associates, Change without Migraines (2008)
- Kotter Strategy Eight-Step Model (Kotter, 1996)
- Prosci ADKAR Model (Hiatt, 1996)
- Mento, Jones and Dimdofor Twelve-Step Model (Mento, Jones & Dimdofor 2002)
- Jick Ten-Step Model (Jick, 2003; Jick 2001)
- Shield Five-Step Model (Shield, 1999)
- Birkinshaw Dimensions of Management (Birkinshaw, 2010)
- The Process of Transition Model (JM Fisher, 2000)
- Diffusion of Innovation Model (EM Rogers, 1955)
- Collaborative Communication (TM)
- Just Thinking Thought Process Model
- Logical Conjunctions
- Mento Jones Model (2002)

Figure 16: Traditional Models Examined

The author considered 11 different Diagnostic Modelling Tools listed in Figure:17 Key organisation models relied upon which are relevant to this research and which can be utilised when approaching organisational design.

- Balanced Scorecard 5.1.1
- Profiles in Organisational DNA 5.1.2
- Deloitte Shareholder Process 5.1.3
- McKinsey 7 Segment 5.1.4
- Viable System Modelling 5.1.5
- Game Theory 5.1.6
- TRIZ 5.1.7
- Lewin's Model 1945 5.1.8
- Kotter's Model 1996 5.1.9
- Jick's Model 2003 5.1.10
- Models that apply step approach 5.1.11

Figure 17: Key Organisation models relied upon after consultation with expert groups

4.12.1 Balanced Scorecard

The Balanced Scorecard (Kaplan and Norton, 1992) is a concept that was developed in the early 90s to help managers measure and monitor indicators other than purely financial ones. The scorecard is often compared to a cockpit where the pilot receives all the information they need for a successful flight. The authors compare pilots with managers who have to monitor essential areas of a business in order to lead it. The Balanced Scorecard (BSC) is used to convert strategic planning into actions for an organisation on a routine basis. Thus, it is said to enable the translation of strategy into action through the provision of both internal and external feedback to continuously improve performance.

Kaplan and Norton describe the innovation of the balanced scorecard as follows:

“The balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future

value through investment in customers, suppliers, employees, processes, technology, and innovation.”

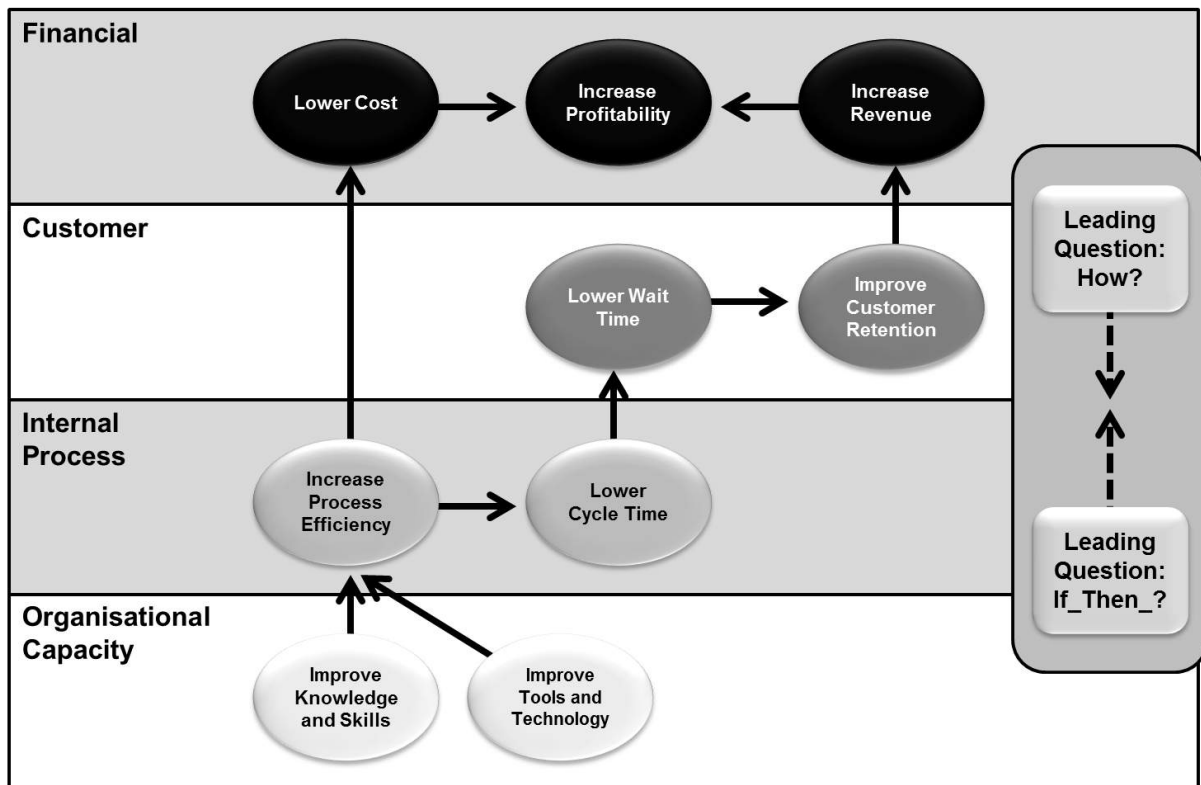
(Kaplan and Norton, 1992)

In a study carried out by Kershaw and Kershaw (Kershaw and Kershaw, 2001), a BSC framework was developed to implement a new strategy for a problematic hospice unit at St. Elsewhere Hospital that had been performing poorly, which resulted in a chronically low patient census, high employee turnover rate and poor referral rate from physicians working at the hospital. The study demonstrated how the balanced scorecard could help a hospital link this strategy to the daily activities of its employees. This ultimately made a difference in deciding the fate of the organisation in today's dynamic healthcare industry (Ba-Abaad, 2009).

The BSC tool encompasses four perspectives of an organisation considered sufficient to produce a full and complete organisational analysis. These perspectives are:

- Learning and growth – continuous learning, training and self-improvement.
- Business Process - metrics based on internal processes.
- Customer – metrics for customer satisfaction.
- Financial – traditional financial metrics alongside risk assessment and cost-benefit analysis.

Figure 18: Strategic Planning & Management with the Balanced Scorecard (The Institute Way) schematically depicts the concept that improving performance in the objectives found in the Learning & Growth perspective enables the organisation to improve its Internal Process perspective objectives, which in turn enables the organisation to create desirable results in the Customer and Financial perspectives.



Strategic Planning & Management with the Balanced Scorecard (The Institute Way)

Figure 18: Strategic Planning & Management with the Balanced Scorecard

In his thesis 'Business Model Ontology', Osterwalder builds on this work of Kaplan and Norton but suggests the following four perspectives (Osterwalder, 2004):

- Product - the business the company is in, its products and value propositions offered to the market.
- Customer Interface - the company's target customers, how it delivers products and services, and how it builds a strong relationship with them.
- Infrastructure Management - how the company efficiently performs infrastructural or logistical issues, with whom, and as what kind of network enterprise.
- Financial Aspect - the revenue model, the cost structure and sustainability of the business model.

From a customer perspective a company reflects on how it is viewed by its customers. From an internal perspective the company reflects on what it can excel on. From an

innovation and learning perspective, the company analyses how it can continue to improve and create value. Indeed, this internal perspective can focus a company on what it needs to be proficient. Finally, from a financial perspective a company must ask itself how it looks to shareholders.

Both of these successful models provide a framework with which to implement strategic change, however there is no way to measure the dynamic nature of this change and its variation across characteristics on a constant basis. They are dependent on interval validations and making corrections with no certainty that the correction is maintaining the correct trajectory.

4.12.3 Deloitte Shareholder Process

The Deloitte Shareholder Process describes a commercial management system orientated explicitly towards value. Through aligning the people, processes and systems of an organisation it seeks to continuously increase shareholder value. This value, as represented by the share price, is set by the market, and because the market is more concerned with the future than the past, the value-based management has to deal with perception as well as reality.

In 1962, Nobel Laureate Milton Friedman declared that

“There is one and only one social responsibility of business — to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud”

(Friedman, 1962)

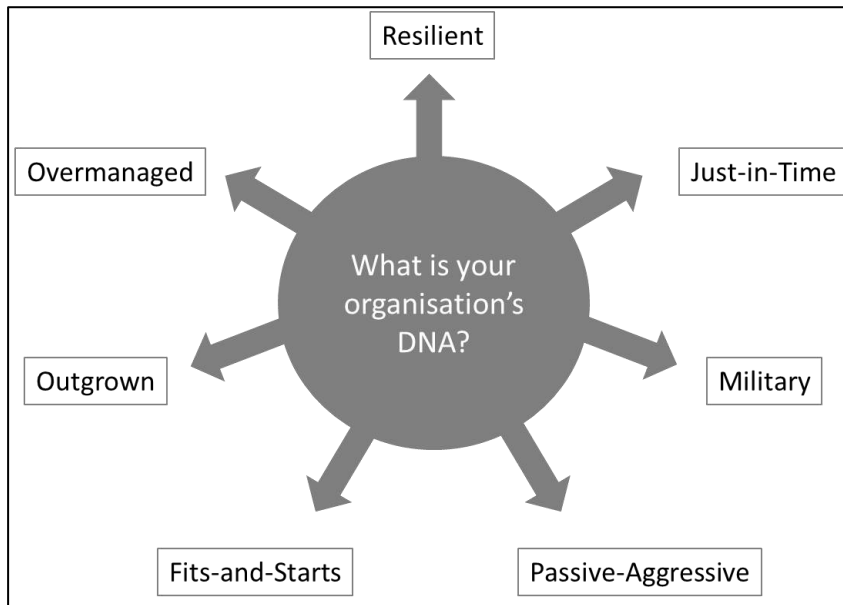
Simply put, Friedman believed that maximising shareholder value is the principal business objective. Managers can choose to pursue activities with a social angle, including investments in “shared value”, as long as these generate profit. Two decades later, Edward Freeman laid out his stakeholder theory of corporate management: stakeholders include any group or individual that can affect or is affected by the achievement of an organisation’s objectives (Freeman, 1984). He professed that even as a company pursues profitability, it needs to create “as much value as possible for multiple stakeholders, without resorting to trade-offs”. Freeman believes that the business objective should be to augment the greater good for the many. Stakeholder

theory is commonly used to explain why the interests of stakeholders, such as communities and employees, should be considered along with those of shareholders. It has two distinct tasks: to improve performance by being more effective and efficient; and to convince the market of the promise of this activity in terms the market will understand and believe. Market prices tend to be tied to future expectations rather than to past accomplishments. And therein lies the difference between performance, which is always historical, and valuation, which is about the market's expectation of future performance.

Many organisations experience difficulties in aligning their strategies, initiatives, performance measures and compensation plans: in other words, their performance management framework. While some of this is due to the complexity of today's organisations, much more of it is about a lack of integration and common processes. The elements of performance management tend to be very fragmented and represent a significant barrier to achieving a commonality of purpose. Again, doing this well is one of the value-creating behaviours of successful companies mentioned earlier. However, this process is very linear, lacks a dynamic edge and fails to capture future focus trends or contradictions and therefore does not meet the key conditions of a dynamic enabled business solution.

4.12.2 Profiles in Organisational DNA – Booz Allen Hamilton

The management consultants Booz Allen Hamilton (Dehoff, Jaruzelski and Kronenberg, 2005) have developed an Organisational DNA model to 'help clients identify and overcome organisational impediments to effective execution'.



Seven Organisational DNA Profiles (Dehoff, Jaruzelski and Kronenberg, 2005; Neilson, Pasternak and Mendes, 2010)

Figure 19: Seven Organisational DNA Profiles

Their use of Organisational DNA is a metaphor chosen in an attempt to codify the characteristics of a business. They describe the DNA of a living organisation as having four bases that, combined in many ways, define an organisation's unique traits. Thus, their model is based on the following four basic building blocks: structure, decision rights, motivators, and information.

Structure – what does the organisational hierarchy look like? How are the lines and boxes in the organisational chart connected? How many layers are in the hierarchy, and how many direct reports does each layer have?

Decision Rights – who decides what? How many people are involved in a decision process? Where does one person's decision-making authority end and another begin?

Motivators – what objectives, incentives and career alternatives do people have? How are people rewarded financially and non-financially, for what they achieve? What are they encouraged to care about, by whatever means, explicit or implicit?

Information – what metrics are used to measure performance? How are activities coordinated and how is knowledge transferred? How are expectations and progress

communicated? Who knows what? Who needs to know what? How is information transferred from the people who have it to the people who require it? (Neilson, Pasternak and Mendes, 2010)

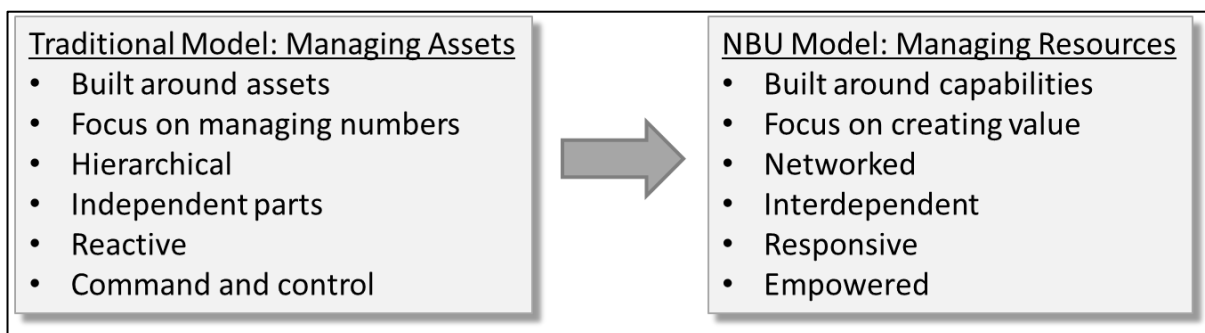
There are a set of questions for each of these building blocks and the answers generate one of seven organisational types or profiles as shown in Figure 19: (Dehoff, Jaruzelski and Kronenberg, 2005; Neilson, Pasternak and Mendes, 2010) *Seven Organisational DNA Profiles*. Booz Allen Hamilton believes this framework identifies and exposes hidden strengths and entrenched weakness so that managers can focus efforts on reinforcing what works in their organisation and modifying what does not. One of their key findings from using the model to establish more than 4,000 profiles was that Organisational DNA changes as companies grow:

“As a rule, small companies report more Resilient and Just-in-Time behaviours. As they grow, they may centralise and demonstrate more Military traits. Once their annual revenues cross the \$1-billion threshold, operations necessarily decentralise, but often badly, as revealed in the higher incidence of Fits-and-starts and Passive Aggressive profiles. Once past the \$10-billion threshold, companies have obviously demonstrated some key success traits but are not necessarily free from dysfunction.”

(Neilson, Pasternak and Mendes, 2010)

The framework enables senior executives to diagnose problems and discover hidden strengths, to modify behaviours through the examination of organisational architecture, resources and relationships, to understand how it got that way and to determine how to change it. Their research has led them to believe however, that unlike human DNA, awareness and anticipation can enable the mutability of organisational DNA. Whilst this is an effective method for organisational diagnostics, it remains in the category of business transformation process that is static, a snapshot that can be used for a point in time but has no means of tracking any future changes.

Booz Allen Hamilton’s approach is an organisation design framework that involves bringing business units into closer alignment with their essential strengths and with ever-changing market demands. Organising around natural business units (NBUs) and using NBUs to make decentralisation decisions allows a company to be more customer-focused and agile through simplification. Traditional business unit configurations can hamper progress because they approach market challenges from an inside-out or top-down perspective. Companies should be structured around capabilities rather than a traditional definition of business lines or assets, as highlighted in Figure 20: (Dehoff, Jaruzelski and Kronenberg, 2005) Transitioning from Traditional Business Units to Natural Business Units

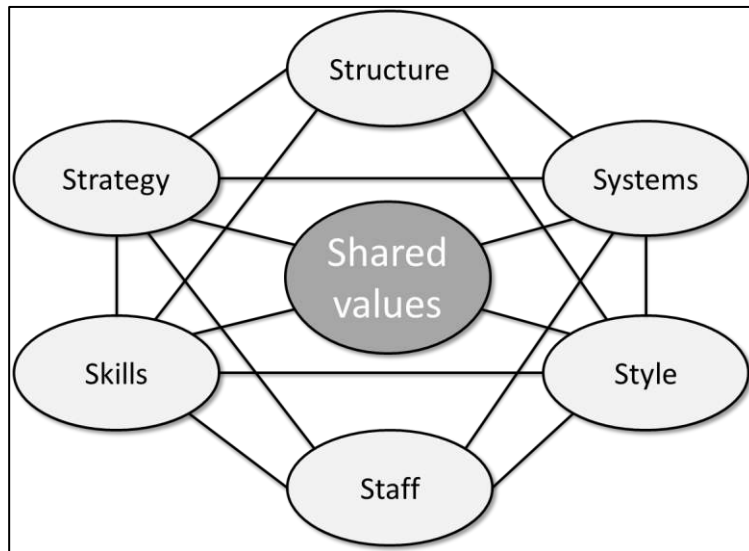


Transitioning from Traditional Business Units to Natural Business Units (Dehoff, Jaruzelski and Kronenberg, 2005)

Figure 20: Transitioning from Traditional Business

4.12.4 McKinsey 7 Segment

The ‘McKinsey 7 Segment’ model (from here on referred to as 7S) was created by Tom Peters and Robert Waterman (Waterman and Peters, 1983), whilst working for the international management consultancy McKinsey & Company. This model was designed to take a holistic approach to understanding a company or organisation and provides a means of assessing how a company would operate given a number of different scenarios. The McKinsey 7s Framework Model is most often used by internal / external change management experts as a tool to assess and monitor changes within an organisation. The in-built factors, which all work collectively to form the model, are shown in the Figure 21: Waterman & Peters, 1983) McKinsey 7S Framework Model



McKinsey 7S Framework Model (Waterman and Peters, 1983)

Figure 21: McKinsey 7S Framework Model

The 7S model is based on the theory that for an organisation to perform well, these seven elements need to be aligned and mutually reinforcing. As such, the model is intended to be used to help identify what needs to be realigned to improve organisational performance. In response to an interviewer's question at a management seminar in 2008, former McKinsey & Co. Managing Director Rajat Gupta stated;

"The science of management continues to develop as scholars and global business leaders refine their approaches to organising their enterprises to ensure both profitability and sustainability. There is surely no 'one size' fits all solution that can guarantee success in business. However, among the array of techniques and theories that can help strengthen business, I have always found that the 7-S framework offers a sound approach to combining all of the essential factors that sustain strong organisations; strategy, systems, structure, skills, style and staff – all united by shared values. The 7-S framework remains one of the enduring elements of diligent, focused business management."

Peters himself, articulated that:

"At its most powerful and complex, the framework forces us to concentrate on interactions and fit. The real energy required to re-direct an institution comes when all the variables in the model are aligned."

(Peters, 2011)

7S divides structures and systems into two separate aspects of the system. They are typically defined as:

- Structures: the way the organisation's units relate to each other, (centralised or de-centralised), functional division (top-down or bottom-up), matrix, hierarchy and holding.
- Systems: the procedures processes and routines that characterise how work is to be done, financial systems, hiring, promotion and performance appraisal systems, information systems.

The key aims and objectives of these businesses were to:

- Improve the overall performance of the company.
- Improve the utilisation and productivity of all the available resources.
- Examine the likely effects of future changes within the company.
- Align business units and processes during a merger or acquisition.
- Determine how best to implement and execute a proposed strategic transformation.

Within the 7S model, Peters identifies excellence as a cultural issue, where both ambiguity and paradox are required to bind people's need for conformity with their desire to be regarded as individuals. A good structure of an organisation will only emerge if human aspects (soft factors) can be taken into account. Peters concluded that an overly-strong reliance on rational decision-making is not only wrong but could be dangerous to the effectiveness of an organisation. Neither Waterman nor Peters made any explicit claim that the model was intended to be a 'complete' representation of an organisation. In more recent times however, it has in some cases been interpreted in such a way.

In summary the four main benefits of the McKinsey model have been established as follows;

- It is an effective way to diagnose and understand an organisation.

- It is a guide for organisational change.
- It is a combination of both rational and emotional constituents.
- All parts are interrelated, so all portions must be addressed and focused on.

However, what is missing is a dynamic analysis of an organisation's DNA. One major disadvantage is the lack of ability to show that when one of the factors change, other factors may change as they are inter-related. The empirical validity of the model was questioned when many of the company's previously identified as 'excellent' did not survive the 1990s. This highlighted that there were other factors which impacted upon the organisation, which were necessary to be understood to be truly successful in delivering real organisational re-alignment.

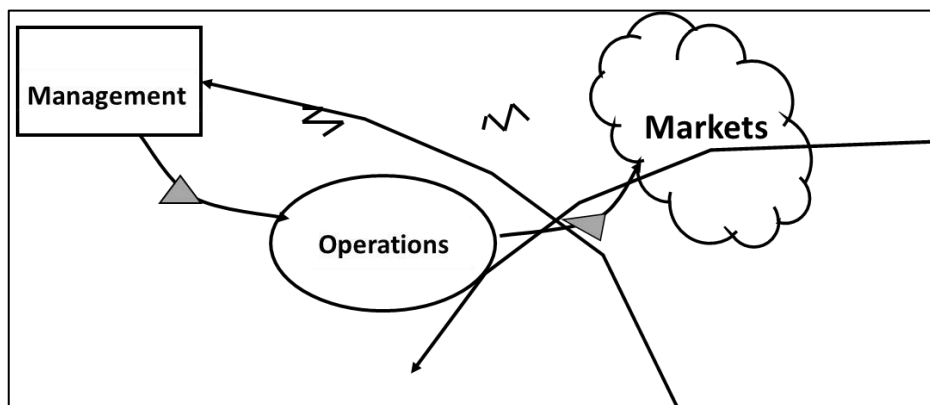
4.12.5 Viable System Modelling

Beer (Beer, 1972) synthesised an approach to tackle organisational complexity by replicating the invariant properties occurring in the organisation of the human body and projecting them onto corporate governing structures. The emphasis of this method is concerned with functional rather than structural differentiation. This allows one to describe very different social systems with the same concepts and to look for isomorphic deviations. The way to abstract a system's physical aspects or components while still preserving its essential organisational properties is to consider relations: how do the components differ from or connect to each other? How does one state transform into the other?

In essence, the Viable System Methodology is concerned with those properties of systems that are independent of their concrete material or components. Viable systems model is the mapping of the invariant patterns of an organisational structure. The word "Viable" being a derivative of "living" stresses, the method's capability to project possible changes, which may occur in any organisation if any deviations from invariant pattern are observed. Beer himself gives the following vision of differentiation between the meaning of structure and form:

“The authors first of all say that an autopoietic system is a homeostat. We already know what that is: a device for holding a critical systemic variable within physiological limits. They go on to the definitive point: in the case of autopoietic homeostasis, the critical variable is the system's own organisation. It does not matter, it seems, whether every measurable property of that organisational structure change utterly in the system's process of continuing adaptation. It survives.”

(Snowdon and Beer, 1980)



Simplified organisational VSM (Beer, 1986)

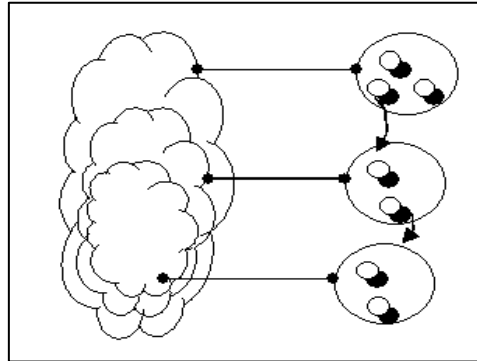
Figure 22: Simplified organisational VSM

The model of any viable system, VSM, presents a set of interlocking homeostats. There are two balancing homeostatic loops. The homeostatic loop between the management and the operations signifies the management's efforts to regulate variety of its operations, at the same time the variety of the operations, in turn, must match changes in the environment.

Each of the systemic elements (management, operations, and markets can generate variety, which is equal to the number of states they are capable to assume at any given time. The variety generated by the market would always be greater than the firm can match in the operational domain. In turn, operations generate larger number of states than the controlling system shown in Figure 22: (Beer, 1986) Simplified organisational VSM.

According to the cybernetic model of any viable system, there are five necessary and sufficient subsystems interactively involved in any organism or organisation that is

capable of maintaining its identity independently of other such organisms within a shared environment.



The unfolding of complexity. (The recursive structure) (Espejo, 1990)

Figure 23: The unfolding of complexity

The functional responsibility of System One, as detailed in Beer's work, is to autonomously perform primary activity in order to carry out the system's purpose of existence. The collection of all the operational elements in the viable system exhausts its basic activities. These basic activities, if sufficiently complex, will have further sub-activities, and so on until the full complexity of the organisation task is absorbed.

The other subsystems, called Two, Three, Four and Five, fulfil a regulatory activity, so that the collection of operational elements cohere in that totality which is called a viable system. Beer explains that if every operational element is managed by its own management, then

"...whatever else is needed to manage the collection of operational elements is metasystemic to that".

(Snowdon and Beer, 1980)

System One: the system that produces and has an ability to operate as an independent unit in its own right.

System Two: co-ordinates the activities of the system through the allocation of common resources.

System Three: oversees the activities of System One to achieve maximum synergy.

System Four: is outward looking, it looks to the future, performing a predictive function and along with System One is the only other system connected to the environment.

System Five: essential function of closure to the system, enabling alignment with its purpose and subsequent identity, aiming to balance the inside operations with the environment outside to maintain stability and ensure future survival.

The VSM provides a method of dealing with complexity through its recursive structure Figure 23: (Espejo, 1990) *The unfolding of complexity. (The recursive structure)*. This means that by unfolding the model, each layer will have an identical structure at the level below. However, the VSM has not been widely accepted as a change and transformation tool mainly as it is presented as a complicated and complex model for business to be able to integrate with speed and ease. It is also lacking any software that adds a dynamical dimension of time so thus remains a static diagnostic tool.

4.12.6 Game Theory

All organisations are a set of strategic imperatives with a set of key executables. In any study of strategic decision-making we need to examine areas of alignment, identify potential conflict points, and understand contradictions in both the known and unknown space. The use of mathematical models of conflict and cooperation between intelligent units as used in Game theory is a good basis for understanding organisations. In *The Game of Business*, John MacDonald argued that,

"...a game is more than a sport, pastime, or amusement. It is also a model of the real world"

(McDonald, 1975)

Game theory is apt to surface particularly strongly during times of crisis when an organisation is in conflict. Game theory indicates what rational decision makers should do to maximise their gains in conflict situations; it cannot predict actual behaviour because it does not take into account individual irrationalities, imperfect information, or specific real-life situations where "satisficing" (satisfying and sacrificing) may be less costly than pursuing maximal gains. Despite its limitations, game theory's very formalism provides structured models of optimum behaviour that act as templates or benchmarks against which imperfect organisational behaviour is thrown into relief. The leading frameworks look at non-cooperative, and co-operative game theory,

evolutionary game theory and adaptive learning models which reflect different views on how beliefs and strategies are determined. Game theory works from the premise that,

"...social events can best be described or captured by models taken from suitable games of strategy. These games in turn are amenable thorough mathematical analysis"

(Davis, 1983)

"Cooperative theory starts with a formalisation of games that abstracts away altogether from procedures and concentrates instead, on the possibilities for agreement. There are several reasons that explain why cooperative games came to be treated separately. One is that when one does build negotiation and enforcement procedures explicitly into the model, then the results of a non-cooperative analysis depend very strongly on the precise form of the procedures, on the order of making offers and counter-offers and so on. This may be appropriate in voting situations in which precise rules of parliamentary order prevail, where a good strategist can indeed carry the day. But problems of negotiation are usually more amorphous; it is difficult to pin down just what the procedures are. More fundamentally, there is a feeling that procedures are not really all that relevant; that is the possibilities for coalition forming, promising and threatening that are decisive, rather than whose turn it is to speak. Detail distracts attention from essentials. Some things are seen better from a distance; the Roman camps around Metzada are indiscernible when one is in them, but easily visible from the top of the mountain."

(Aumann, 2008) .

In the author's practitioner experience, every organisation with which he has been involved to date has been a complex web of interactions, signature practices, irrational decision making, impacting upon multiple entities that interact with each other inside and outside of the business. The theory is that such interactions should follow consistent underlying rules. However, these rules are normative: they indicate ways that organisations should deal with messaging, interactions and conflict, not how they actually do or will deal with it. Game theory does help to model, to analyse and to understand behaviours of a multiple of interactions when making decisions. It can be

a very powerful tool for analysing situations. It allows us to identify certain decision patterns that follow the guidelines of formal games of strategy. Yet organisations in the author's experience are wary of game theory as they see it as more theoretical than practical. When used, the inclination of managers is to seek too precise an answer to what can best be described as environmental messiness.

4.12.7 TRIZ

In the book 'Transforming the Organisation' (Gouillart and Kelly, 1996), Gouillart and Kelly describe what could be considered an achievable vision upon which business transformation needs to be built. They outline these beliefs as:

"The company is a living organism. The underlying premise of business transformation is that the complexity of a modern corporation defies mechanistic description, that a corporation is tantamount to a living organism – the biological corporation. The need for Business Transformation represents a fundamental shift in the relationship of the corporation to individuals and to society as a whole. Simply put, corporations need to reconnect with people."

(Gouillart and Kelly, 1996)

The interesting point in Gouillart and Kelly's statement is that 'Business Transformation' is the orchestrated redesign of the genetic architecture of the corporation, achieved by working simultaneously, although at different speeds. However, it is felt that their outlined dimensions of Reframing, Restructuring, Revitalisation and Renewal do not meet with all necessary requirements.

The search to fill the vacuum of questions left unanswered led to the study of a new approach: TRIZ.

A brilliant Russian patent examiner, Genrich Altshuller, refused to accept that invention and creativity were random acts. Altshuller thought it was illogical that the creative process alone was impossible to understand in a logical scientific way and believed we should be able to teach the process for developing new, successful inventions. Altshuller's vehicle for creating TRIZ was to study global patents, recordings of documented inventions and intellectual property throughout the world. In studying patent literature, he distinguished between mundane and trivial patents (with little inventive challenge), and those few patents (<10%) that were truly ground-breaking.

“In the past, project managers have consciously avoided all kinds of “creativity” on projects, in the belief that creative problem solutions increase the risk of project failure, since “creativity” has had the reputation for being wild, uncontrolled, undisciplined generation of new ideas that were of limited (or no!) practicality. So, they were right—creativity was a danger to the project. But creativity can be managed. It can be focused. And it can be the reason that the project succeeds.”

(Domb, 2000).

After analysing the ground-breaking patents, Altshuller identified a common set of inventive principles and processes used across numerous areas of technology. He codified these inventive principles to make them useful across various areas of technology and business. In its generic form, this model contains the five elements illustrated in Figure 24: TRIZ Law of System Completeness.

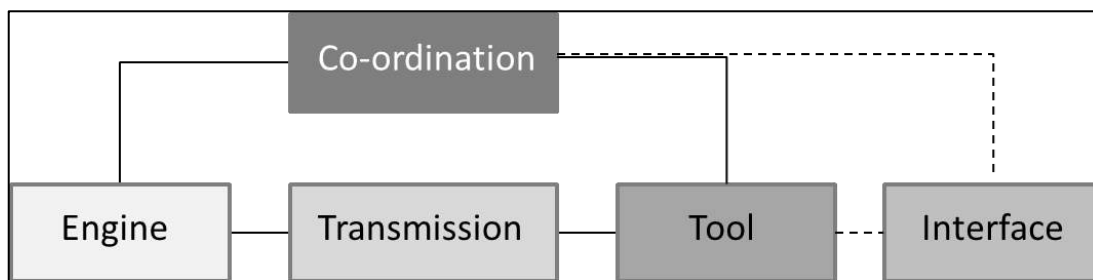


Figure 24: TRIZ Law of System Completeness

The co-ordination box is typically considered the part of the system responsible for ensuring the other four parts work together in a co-ordinated fashion. From a tangible perspective there is a direct link between this definition and the definition in 7S. The tangible aspect corresponds to ‘strategy’ and the intangible aspect of the model is the ‘shared values’.

The engine element of the law which refers to the source of energy that runs the system, in this case makes the business work. It is typically connected to the people employed in the business which, if looked at from both a tangible and intangible perspective, connects elegantly to the ‘staff’ and ‘skills’ aspects respectively of the 7S model.

The Transmission element is part of the system that connects the source of energy to the tool. The tool is the useful outputs produced by the system. From a business perspective, the transmission is all about processes and systems. However, it would appear sensible to divide these into tangible and intangible aspects: the tangible being both the 'structures' and 'systems'. Correspondingly, the intangible element of the transmission is the seventh and final element of the 7S model; the 'style' of the business.

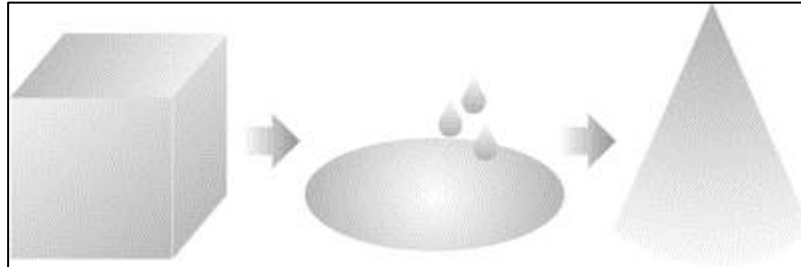
Looking primarily at all the differences between the two models (7S and TRIZ), it quickly becomes clear that 7S contains a combination of tangible (staff, strategy, structure, systems) and intangible (skills, style and shared values) factors the 'Law of System Completeness' omits. This is not to say that the 'Law of System Completeness' precludes or excludes a division into tangible and intangible worlds, indeed when considered in a business context, it is quite clear that the Law must apply to both contexts.

4.12.8 Lewin's Change Management Model

One of the cornerstone models for understanding organisational change was developed by Kurt Lewin. The fundamental assumptions underlying any change in a human system are derived originally from Kurt Lewin (Lewin, 1946; Schein, 1992).

The Kurt Lewin model was developed in the 1940s. His model is still adopted and cited by many organisation practitioners. His model is regarded as the 'fundamental' or 'classic' approach to, or classic 'paradigm' for, managing change (Robbins and Judge, 2009; Sonenshein, 2010). Lewin's three stage theory of change is commonly referred to as Unfreeze, Change, Freeze (or Refreeze). The theory has been criticised for being too simplistic and the world has changed since the theory was originally presented in 1947, but the Kurt Lewin model is still extremely relevant particularly given that many other modern change models are actually based on the 3-stage Lewin model. Kurt Lewin is widely considered the founding father of change management. With his 'unfreeze–change–refreeze' or 'changing as three steps' model, Figure 25: (Lewin, 1951) Lewin's Unfreeze, Change, Freeze, Lewin explained organisational change in a simple analogy of changing the shape of a block of ice.

If you have a large cube of ice but realise that what you want is a cone of ice, what do you do? First you must melt the ice to make it amenable to change (unfreeze). Then you must mould the iced water into the shape you want (change). Finally, you must solidify the new shape (refreeze).



Lewin's Unfreeze, Change, Freeze (Lewin, 1951)

Figure 25: Lewin's Unfreeze, Change, Freeze

By looking at change as a process with distinct stages, organisations can compare themselves for the change they want to implement and make a plan to manage the transition.

Lewin explained that to begin any successful change process, you must first start by understanding why the change must take place. As he explained,

"Motivation for change must be generated before change can occur. One must be helped to re-examine many cherished assumptions about oneself and one's relations to others."

(Lewin, 1951)

This is the unfreezing stage from which change begins.

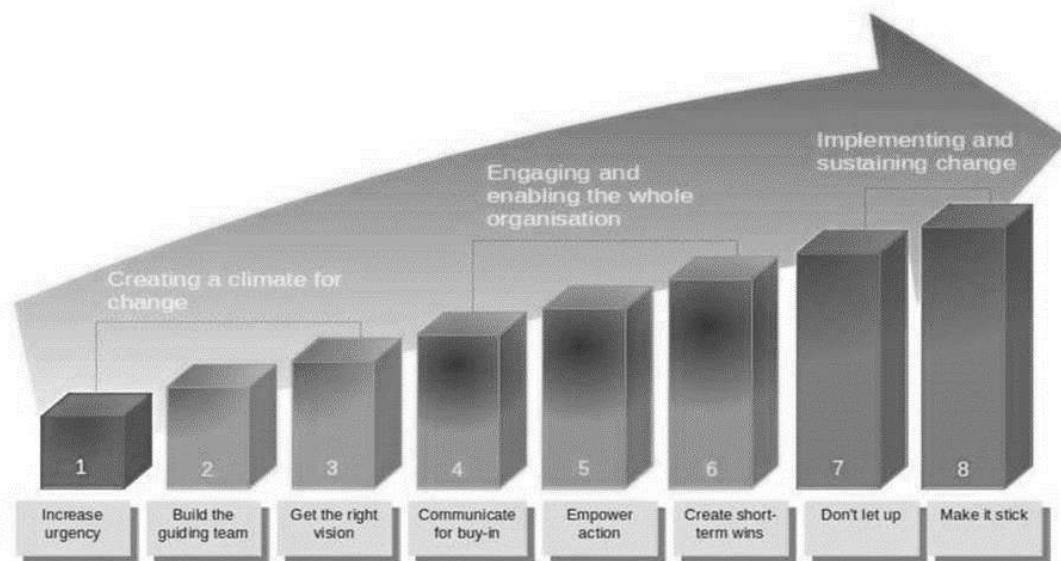
The study of change management has subsequently 'followed Lewin' (Jeffcutt, 1994), 'the intellectual father of contemporary theories' (Schein, 1992) Lewin's model has subsequently 'dominated almost all western theories of change over the past fifty years'. Academics claim that all theories of change are reducible to this single idea of Kurt Lewin's (Hendry, 1996), and practitioners often boast that the most powerful tool in their toolbox is Kurt Lewin's simple three-step change model (Levasseur, 2001).

Lewin's model is perceived as a model lacking the flexibility required to fit with the VUCA (volatile, uncertain, complex and ambiguous) world we live in, where the pace

of change is accelerating faster than ever before and where the constant and sometimes even chaotic process of change requires a great deal of flexibility. This criticism entails that the final stage of the process should not end up in a rigid, hard state but that it should rather conclude leaving the organisation in a sort of soft, jelly-like state which could be constantly shaped and moulded accordingly. The criticism stirred by Kanter, et al. (Kanter, Stein, and Jick, 1992) about the lack of dynamism of the model is actually inappropriate - Lewin in fact was clearly aware of the circumstance that any change could have been “frequently short-lived.” The refreezing stage is not intended as a final, conclusive and stable point, but as the point necessary to determine from which point and / or state the following process of change starts.

4.12.9 Kotter’s Model

John Kotter (Kotter, 1995) a Harvard Business School Professor, in his book “Leading Change”, introduced an ‘8 Step Model of Change’ which he developed on the basis of research covering 100 organisations which were going through a process of change. The 8 steps in the process of change include: creating a sense of urgency, forming powerful guiding coalitions, developing a vision and a strategy, communicating the vision, removing obstacles and empowering employees for action, creating short-term wins, consolidating gains and strengthening change by anchoring change in the culture. Kotter’s 8 step model is summarised in Figure 26, and explained further below:



Kotter's 8-step change model

(Kotter, 1995) *Kotter's Model*

Figure 26: 8 Step Change Model

Creating an Urgency. This can be done in the following ways:

- Identifying and highlighting the potential threats and the repercussions which might crop up in the future.
- Examining the opportunities which can be tapped through effective interventions.
- Initiate honest dialogues and discussions to make people think over the prevalent issues and give convincing reasons to them.
- Request the involvement and support of the industry people, key stakeholders and customers on the issue of change.

Forming Powerful Guiding Coalitions. This can be achieved in the following ways:

- Identifying the effective change leaders in your organisations and also the key stakeholders, requesting their involvement and commitment towards the entire process.
- Form a powerful change coalition who would be working as a team.

- Identify the weak areas in the coalition teams and ensure that the team involves many influential people from various cross functional departments and working in different levels in the company.

Developing a Vision and a Strategy. This can be achieved by:

- Determining the core values, defining the ultimate vision and the strategies for realising a change in an organisation.
- Ensure that the change leaders can describe the vision effectively and, in a manner that people can easily understand and follow.

Communicating the Vision:

- Communicate the change in the vision very often powerfully and convincingly. Connect the vision with all the crucial aspects like performance reviews and training.
- Handle the concerns and issues of people honestly and with involvement.

Removing Obstacles:

- Ensure that the organisational processes and structure are in place and aligned with the overall organisational vision.
- Continuously check for barriers or people who are resisting change. Implement proactive actions to remove the obstacles involved in the process of change.
- Reward people for endorsing change and supporting in the process.

Creating Short-Term Wins:

- By creating short term wins early in the change process, you can give a feel of victory in the early stages of change.
- Create many short-term targets instead of one long-term goal, which are achievable and less expensive and have lesser possibilities of failure.
- Reward the contributions of people who are involved in meeting the targets.

Consolidating Gains:

- Achieve continuous improvement by analysing the success stories individually and improving from those individual experiences.

Anchoring Change in the Corporate Culture:

- Discuss the successful stories related to change initiatives on every given opportunity.
- Ensure that the change becomes an integral part in your organisational culture and is visible in every organisational aspect.
- Ensure that the support of the existing company leaders as well as the new leaders continue to extend their support towards the change

However, as Kotter's model is designed as a step by step process, skipping even a single step could result in serious problems. In addition, the process in itself is time consuming. The structure of the model is essentially top-down which tends to discourage any scope for co-creation or participation. This can lead to frustration and dissatisfaction among employees if the individual requirements are not given due attention.

4.12.10 Jick's Model

Jick (Jick, 1993) developed a tactical level model to guide the implementation of major organisational change. His ten-step approach serves as a blueprint for organisations embarking on the change process as well as a way to evaluate a change effort already in progress. Jick states that implementation is a blend of both art and science.

The ten key steps for change Figure 27: (Jick, 1993) Jick's 10 Steps for Implementing Change, as described by Jick are as follows:

- Analyse the organisation and its need for change. This analysis should be sound, otherwise the organisation cannot achieve its goals. The company's history of change should also be studied. If a company has a record of opposing change, more care should be taken to design a gradual nonthreatening, participative implementation process. The forces for and against change should be examined. Change will not occur unless the forces driving it are stronger than those resisting it.

- Create a shared vision and common direction. One of the first steps in engineering change is to unite an organisation behind a central vision. The way the vision is presented to the organisation can have a strong impact on its implementation. Employees at all levels of the organisation will want to know the rationale behind it. Implementers should translate the vision, so all employees will understand its implications for their own jobs.
- Separate from the past. Disengaging from the past is critical to awakening to a new reality. A new vision of the future is difficult to embrace unless the structures and routines that no longer work are isolated. It is also important however to hang on and reinforce those aspects of the organisation that bring value to the new vision. Some sort of stability is needed to provide continuity amidst change.
- Create a sense of urgency. When an organisation is e.g. facing bankruptcy, it won't be that difficult to convince the organisation that change is necessary. When the need for action is not generally understood, a change leader should generate a sense of urgency without appearing to be fabricating one. A sense of urgency is essential to rallying an organisation behind change.
- Support a strong leader role. A large-scale change must have a leader to guide, drive and inspire it. This change advocate plays a critical role in creating the company vision, motivating employees to embrace that vision and craft a structure that rewards those striving towards that vision. Many organisations turn now to a change leader team, as environments become more complex and implementation of change becomes more demanding. A change leader team has the advantage of combining multiple skills.
- Line up political sponsorship. A change effort must have broad support throughout an organisation to succeed. Support should stem from the managers as well as recipients, whose acceptance of any change is necessary for its success. Seeking the backing of informal leaders is a way of winning support for the change. In winning sponsorship, it is not necessary to win unanimous support. Participation can be representative, not universal. Important is to identify whose sponsorship is critical to the change programme's success. An implementer can develop a 'commitment plan' with the following

elements: identify target individuals or groups whose commitment is needed; define the critical mass needed to ensure the effectiveness of the change; develop a plan for getting the commitment of the critical mass; create a monitoring system to assess the progress.

- Craft an implementation plan. The implementation plan will need to map out the efforts needed and when and how to do it. This can in most cases be kept simple. An overly ambitious or too detailed plan can be more demoralising than it is helpful. At the same time, the plan should include specific goals and should detail clear responsibilities for each of the various roles: strategists, implementers and recipients. The plan also should be kept flexible, a kind of living document that is open to revision.
- Develop enabling structures. Enabling structures designed to facilitate and spotlight change range from practical (workshops, training programmes) to symbolic (as rearranging the organisation's physical change). The more complex and large-scale changes require particularly well considered, consistent enabling interventions which do not contradict one another. A series of choices among tactical options is thereby needed.
- Communicate, involve and be honest. When possible, change leaders should communicate openly and seek out the involvement of trust of people throughout the organisation. Full involvement, communication and disclosure are not needed in every change situation but are potent tools to overcome resistance. Effective communication is critical from the start. The following list describes some criteria designed to increase an organisation's understanding and commitment to change, reduce confusion and resistance and prepare employees for both the positive and negative effects of change. In general a constructive change announcement: is brief and concise; describes where the organisation is now, where it needs to go and how it will get into the desired state; identifies who will implement and who will be affected by the change; addresses timing and pacing issues regarding implementation; explains the change's success criteria, the intended evaluation process and the related rewards; identifies the things that will not be changing; predicts some of the negative aspects that targets should anticipate; conveys the sponsors

commitment to the change; explains how people will be kept informed throughout the change process; is presented in such a manner that it capitalises on the diversity of the communications styles of the audience. Real communication requires a dialogue among the different change roles. Listening and responding to concerns, resistance and feedback from all levels, brings a broader understanding of what the change means to different parts of the organisation.

- Reinforce and institutionalise the change. Managers and leaders should make it a top priority to prove their commitment to the transformation process. Reward risk taking and incorporate new behaviours into the day to day operations of the organisation. This point is even more demanding because many organisations do not typically seek one single change, but a continuous process of change. This continuous process of change creates cultures and environments that recognise and thrive on the continuing necessity of change (Jick, 1993)



Jick's 10 Steps for Implementing Change (Jick, 1993)

Figure 27:10 Steps for Implementing Change

4.12.11 Models that apply step approach

Models that have applied the step approach first developed by Lewin include: Shields' five steps for transforming organisations (Shields, 1999), Beer's six steps for change (Beer, 1990); Luecke's seven steps for change (Luecke, 2003), Kotter's eight-step model (Kotter, 1995), Kanter, Stein and Jick's 10 commandments for successful change (Kanter, Stein, & Jick, 1992), and Mento, Jones and Dirndorfer's 12-step integrative framework (Mento, Jones and Dirndorfer, 2002). The processes in each of these models may vary in the number of steps proposed and the order of execution (*Table 2*). However, what unites these models is the idea that change can be achieved provided the correct steps are taken. John Kotter (Kotter, 1995) maintains that although change is full of surprises, his eight-step model will produce a satisfying result as long as the steps are followed. Similarly, Rosabeth Kanter and colleagues (Kanter, Stein & Jick, 1992) stress that with their 10 commandments of change it is an unwise manager who chooses to ignore any one of the steps. Such proponents of planned change argue in favour of change occurring through carefully phased or sequenced processes.

Mento, Jones, and Dirndorfer (Mento, Jones and Dirndorfer, 2002) refer to the eight stages of change as one of three exemplary models. Kotter and Cohen (Kotter & Cohen, 2002) promoted the stages as a model to be preferred over all others. The eight-stage model has been designed for strategic level changes. The stages of change present modern-day management with a tool that incorporates humanistic theory, meaningful values, and self-realisation for their workforce into work processes and provide a useful checklist, as detailed in 4.12.10

During the eight stage process, managers have the ability to influence employee perceptions in ways that help them feel safe and satisfied with the organisation (Perdue, Reardon and Peterson, 2007).

Models of planned change Figures 21: (Waterman and Peters, 1983) McKinsey 7S Framework Model and 22: (Beer, 1986) Simplified organisational VSM, provide useful checklists for managers and leaders in terms of what needs to be considered when planning change. They provide logical and sequential prescriptions for the process of change as they map out the process from the first recognition of the need for change through to the practicalities of implementation. There is, however, no one model that is sufficient to use on its own. Instead, using steps from several of the models can provide a more complete checklist.

4.12.12 Summary

To summarise, it has been shown that the current models make certain distinctions to show how different perspectives and abstractions contribute to analytical processes leading to change and transformation programmes. A commonality is they all claim to be holistic, achieving this through various perspectives and using their particular systems or building blocks. For example, some models use four bases (Balance Scorecard), seven elements (7S), five elements (TRIZ), five systems (VSM) and seven profiles (OrgDNA). However, none of these models provide any real-time tracking facility to be able to monitor any changes when moving between current states to desired future states.

4.12.13 Reflective Learning

The emerging themes from practitioner experience, research and field work indicate that the pace of change is speeding up, and that individuals are moving to new social platforms and working in new ways. The old models are too reactive and linear for this significant paradigm shift.

Models provide us with a framework to analyse organisational structures in relation to the ideal types. They also allow the creation of different potential configurations which helps us understand organisations' change over time. Mintzberg's five ideal organisational forms or configurations for example is based on the assumption that formal and informal structures are intertwined and often indistinguishable from one another (Mintzberg, 1979). The model provides an important synthesis of structural contingency literature. The model does not provide operational guidance for organisational design (or redesign) activities since it lacks a normative framework. The challenge is that most organisations work in a dynamic and complex environment thus limiting the relevance of the model.

The systems approach considers the autopoietic nature of organisations and therefore appreciates that the self-organising behaviour of organisations can negate the effects of any changes made to them. The central characteristic of an autopoietic system is that it undergoes continual structural changes while preserving its pattern or organisation (Maturana and Varela, 1980). It does so in two ways:

- Self-renewal: Every living organism continually renews itself, cells breaking down and building up, structures, tissues and organs replacing their cells in continual cycles.
- New structures: In spite of this ongoing change the organism maintains its overall identity or pattern of organisation.

“Any cohesive social institution is an autopoietic system – because it survives, because its method of survival answers the autopoietic criteria, and because it may well change its entire appearance and its apparent purposes in the process. As examples I list: firms and industries, schools and universities, clinics and hospitals, professional bodies’ department of state and whole countries.”

(Snowdon and Beer, 1980)

The non-linearity in most complex events is rarely accepted in management literature and seldom present in management practice. Large complex organisations need to now accept that many of the results they are trying to achieve in the short term may not be beneficial in the long term to the viability of the organisation.

4.13 Organisational Characteristics

From this understanding, it can be seen that characteristics are aspects of an organisation that give it a uniqueness that distinguishes it from other organisations. Historically an organisation may have been primarily described by clearly defined characteristics, for example quantifiable characteristics such as number of employees (staff), assets of more than 200 million (resource) or revenue in the millions (capital).

These quantifiable characteristics can refer to financial indicators, number of employees and number of customers. These are characteristics typically referred to as hard data. They are especially relevant when organisational structures are clearly defined, operating locally or nationally but within marked boundaries. However, as discussed above, organisations have now grown and are considerably more complex: they have merged, formed partnerships and joint ventures, and through the introduction of new technologies have in some cases become virtual networks.

Other characteristics can be more descriptive and therefore involve more qualitative methods to evaluate them. For example, an organisation will need to be benchmarked against another to be classified as more or less innovative or efficient compared to inefficient. They are a set of characteristics that describe organisational characteristics that are softer than the quantitative and therefore need different tools for analysis than the first.

The third set of characteristics are very subjective and much harder to qualify or quantify than the previous two examples.

- Accountability
- Freedom for risk taking
- Integrated
- Learning
- Intelligent
- Flexibility

These characteristics are more difficult to evaluate and measure as such is the nature of soft data. However, they are fundamental to the overall health and viability of an organisation.

There are several multi-dimensional models used to describe how metaphors and characteristics are used to describe organisations. A leading model used within the academic literature, which actually originates from the practitioner literature, is the model proposed by Peter Senge in his seminal book “The Fifth Discipline” (Senge, 1990). Senge’s model includes five characteristics (or “dimensions”) that are briefly described in Table 4.

Shared Vision	The discipline of creating a shared picture of the future that fosters genuine commitment and engagement. In an organisation, a shared vision binds people together around a common identity and a sense of destiny, giving a sense of purpose and coherence to all activities undertaken.
Team Learning	The discipline of raising the collective IQ of a group and capitalising on the greater knowledge and insights of the collective. This implies dialogue and overcoming patterns of defensiveness that undermine group learning.
Personal Mastery	The discipline of continually clarifying and deepening employees’ personal visions and focusing their energies. This includes awareness of personal weaknesses and growth areas as well as humility, objectivity and the persistent willingness to pursue self-development.
Mental Models	The discipline of clarifying deeply ingrained assumptions, pictures/images that influence employees’ understanding of the world and the actions they take. Change in organisations rarely takes place in the absence of systematic attempts at unearthing these internal pictures, bringing them to surface and holding them rigorously to scrutiny.

Systems Thinking	A framework for identifying patterns and inter-relationships, seeing the big picture, avoiding over-simplification, overcoming linear thinking and dealing with issues holistically and comprehensively.
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Table 4: Senge's dimensions of a learning organisation (Senge, 1990)

The purpose of highlighting this particular model is to show that clearly, all parts of an organisation should agree on the mission of their organisation, or the 'Shared Vision'. They should have a process that increases team learning, communication and personal mastery whilst challenging the underlying assumptions that drive mental models and simultaneously applying 'Systems Thinking' in everything they do. The main purpose of the author's ongoing work is to examine the relationship between certain characteristics that affect brand perception, market trends, communication, change adaptation and transformation, innovation and bottom line organisational performance. In the learning organisation the strongest predictors of rapid change adaptation could be:

- Open communications (Gardiner and Whiting, 1997; Appelbaum and Reichart, 1998; Pool, 2000; Phillips, 2003).
- Risk taking (Richardson, 1995; Appelbaum and Reichart, 1998; Goh, 1998; Rowden, 2001).
- Support and recognition for learning (Wilkinson and Kleiner, 1993; Bennett and O'Brien, 1994; Griego, Geroy and Wright, 2000).
- Resources to perform the job (Pedler, Burgoyne and Boydell, 1991).
- Teams (Anderson, 1997; Appelbaum & Goransson, 1997; Goh, 1998; Salner, 1999; Senge, 1990; Strachan, 1996).
- Rewards for learning (Lippitt, 1997; Griego, Geroy and Wright, 2000; Phillips, 2003)
- Training and learning environment (Gephart *et al.*, 1996; Robinson, Clemson and Keating, 1997; Goh, 1998).
- Knowledge management (Selen, 2000; Loermans, 2002)

A full list of characteristics and key thinkers currently captured in the database can be found in Appendix 3.

4.13.1 Modelling of Characteristics

The next stage in the modelling process of organisational characteristics begins with how they can be classified to provide appropriate fields that will sufficiently represent the overall fabric of an organisation, the organisational DNA. The results of this analysis will then provide a structure for the model. This will be achieved by completing each of the following:

- Understand which characteristics are synonymous and can therefore be grouped;
- Understand which characteristics are dominant in the diagnostic tools;
- Map characteristics in terms of their links and relationships with other characteristics;
- Identify key characteristics for the organisational transformation model.

4.13.2 Synonymous Characteristics

The aim of this background research was to capture as much information as is possible. Every characteristic that was abstracted from the directory of established metaphors of an organisation was included in the database. In total this created a list of 88 organisational characteristics. This extensive list needed to then be reviewed to remove characteristics which were:

- Overlapping characteristics: characteristics whose definitions are so close together they can be considered as a single characteristic;
- Characteristics that are not relevant to transformational change analysis.

Table 5 shows the characteristics that have been assigned to another parent characteristic.

Characteristic	Parent Characteristic
Execution	Output
Implementation	Output
Rational	Learning
Persuasion	Incentive
Forward thinking	Learning
Entrepreneurship	Innovation
Research	Learning
Prospects	Capability
Training	Learning
Rewards	Incentive
Empowerment	Leadership
Departments	Divisions
Interactions	Relationships

Grouping Overlapping Characteristics, demonstrating the analysis of characteristics and the sub analysis carried out.

Table 5: Grouping Overlapping Characteristics (Author's own work)

4.13.3 Evaluating Key Characteristics from Diagnostic Tools.

The importance of the study of the diagnostic modelling tools in this research, as outlined in section 6.1, page 30, is to begin to understand which characteristics can be considered as 'key'. Table 6 represents a summary of the top 10 characteristics that are most prevalent in each of the diagnostic modelling tools. A full list of the characteristics in relation to the diagnostic modelling tools can be found in Appendix 4.

Characteristics	Found in Model/Theory	Total
Strategy & Vision	Balance, 7S, VSM, GT	4
Systems & Process	DSP, 7S, TRIZ, VSM	4
Output & Value	7S, TRIZ, VSM, Balance	4
Skills	Hall. 7S, TRIZ,	3
Knowledge	TRIZ, VSM	2
Innovation & Change	TRIZ, VSM, 7S, VSM	4
Shared Values	7S, VSM	2
Relationships	GT, VSM	2
Resources	7S, TRIZ, VSM, Balance	4
Leadership & Resources	VSM, 7S, TRIZ, VSM	4

Characteristics taken from Diagnostic Modelling Tools demonstrating the analysis in Appendices 4-7

Table 6: Characteristics taken from Diagnostic Modelling Tools (Author's own work)

4.12.4 Relationships between Characteristics

The next step in the methodology involves two stages and facilitates the determination of those characteristics that are intrinsically linked to others. The first stage involves the following steps:

- Abstracting links from one characteristic to another through their definitions;
- Cross referencing all the links to ensure completeness;
- Order the characteristics by the number of links they have to others.

The second stage in the methodology is to then map these characteristics in reference to the hierarchy of characteristics found in the diagnostic modelling tools in 6.1.2. This will then form another hierarchical list of characteristics with which to underpin the organisational transformation model. A list of the original set of characteristics with their links to other characteristics can be found in Appendix 5.

This process results in another hierarchical structure of organisational characteristics and the full table can be found in Appendix 6; the hierarchy of characteristics determined by the number of relationships to other characteristics. The importance of this hierarchy is to provide an initial understanding of the importance of the characteristics that have been identified in relation to the number of relationships or links they have to others within the organisation.

4.12.5 Identifying Key Characteristics

The final stage of this part of the process is to compare both hierarchies, to cross reference them to show consistency and to allow for the key characteristics of the model to be understood. The highest placed characteristics found in the diagnostic modelling tools table are mapped against the list of characteristics ordered by the number of links to other characteristics. Then, further to this, the list of relationships and links hierarchy of characteristics is mapped against the characteristics found in the diagnostic tools and shown in Appendix 7. The results show consistency and have the same characteristics in the top percentile of the hierarchy, thus providing a useful guide for shaping any future model.

Using this methodology, 7 key characteristics are revealed in Figure 28: Key Characteristics. These will form the focus on which a future model will be based.

Characteristic
Systems
Resources
Leadership
Innovation
Knowledge
Process
Vision

Figure 28: Key Characteristics (Author's own work)

4.12.5.1 Vision

A vision statement is a company's road map, indicating both what the company wants to become and guiding transformational initiatives by setting a defined direction for the company's growth. As a best practice, the vision statement seeks to answer the question: "How can our organisation add value to the marketplace or to the populations we serve?" A vision statement communicates the organisation's reason for being, and how it aims to serve its key stakeholders. Customers, employees, and investors are the stakeholders most often emphasised, but other stakeholders like government or communities (in the form of social or environmental impact) can also be discussed. According to Collins and Porras (Collins & Porras, 1996), vision has two key components: a base ideology and visionary future. Base ideology gives the reasons of organisation existence, its persistent features and authentic identity. Visionary future primarily describes the state of the organisation 10 and 30 years from now. It requires predictions that overcome current conditions and resources.

"I cannot imagine someone advancing a plausible argument that understanding the process of attitude change is unimportant to us—yet no body of organisational literature on attitude change exists."

(Brief, 1998)

Manageable risk implies that there is sufficient knowledge to at least quantify the probabilities of specific outcomes. Uncertainty, as characterised by Frank Knight (Knight, 1921), suggests that the level of risk becomes unknowable. In this type of environment, the time to learn becomes the fundamental restriction to effective innovation. New knowledge must be created to determine the changes (or improvements) that will provide benefit and meet goals. Change and willingness to engage to change can be more or less present at the individual, group, unit, department, or organisational level. Change readiness can be theorised, assessed, and studied at any of these levels of analysis. Organisational readiness for change is a multi-level, multi-faceted construct. As an organisation-level construct, readiness for change refers to organisational members' shared resolve to implement a change (change commitment) and shared belief in their collective capability to do so (change efficacy). Many publications (Ajzen and Fishbein, 1973, 1977; Turner and Pratkanis, 1994; Brief, 1998) point out,

“There is general agreement that a person’s attitude towards some object constitutes a predisposition on his part to respond to the object in a consistently favourable or unfavourable manner”

(Ajzen and Fishbein, 1973)

Attitudes are summary evaluations of persons, objects, ideas, or activities along a dimension ranging from positive to negative. Organisational change is both the process in which an organisation changes its structure, strategies, operational methods, technologies, or organisational culture to affect change within the organisation and the effects of these changes on the organisation. Organisational change can be continuous or occur for distinct periods of time. A company's change drivers include the competitive environment, new technologies, consumer demand, economic conditions and government policy actions.

4.12.5.2 Strategy

In 1997, Markides (Markides, 1997), re-examined the nature of strategic planning. He described strategy formation and implementation as an ongoing, never-ending, integrated process requiring continuous reassessment and reformation. Strategic management is planned and emergent, dynamic and interactive. The term ‘intervention’ refers to a set of sequenced planned actions or events intended to help an organisation increase its effectiveness. Interventions purposely disrupt the status quo; they are deliberate attempts to change an organisation or submit toward a different and more effective state (Dailey, 2012).

Mintzberg (Mintzberg, 1994) defined strategy as "a pattern in a stream of decisions" which is in contrast with another view of strategy as planning or "strategy is about shaping the future" and is the human attempt to get to "desirable ends with available means". From these definitions it would appear that strategy therefore involves the co-ordination of decision making processes regarding resource allocation of staff, skills and relationships.

Porter (Porter, 1980) identifies three underlying factors of strategy: creating a unique and valuable market position, making trade-offs by choosing ‘what not to do’, and creating fit by aligning company activities to one another to support the chosen strategy.

Ross and Kami in their book *'Corporate Management in Crisis: Why the Mighty Fall'* have suggested

"Without a strategy the organisation is like a ship without a rudder, going around in circles. It is like a tramp; it has no place to go."

(Ross and Kami, 1973)

The word "strategy" has a multiplicity of meanings, and in his writing on strategic management theory, Henry Mintzberg, more than most authors explicitly acknowledges this. He identifies five common usages of the term strategy, each beginning with the letter 'P' in Figure: 29 "The Strategy Concept 1: Five Ps For Strategy" (Mintzberg, 1987).



The Strategy Concept 1: Five Ps For Strategy (Mintzberg, 1987)

Figure 29: The Strategy Concept 1

Henrik von Scheel (Von Scheel *et al.*, 2014) defines the essence of strategy as the activities to deliver a unique mix of value, choosing to perform activities differently or to perform different activities than rivals. Max McKeown (McKeown, 2015) argues that "strategy is about shaping the future" and is the human attempt to get to "desirable ends with available means". Dr. Vladimir Kvint defines strategy as,

"...a system of finding, formulating, and developing a doctrine that will ensure long-term success if followed faithfully."

(Kvint, 2009)

Complexity theorists define strategy as the unfolding of the internal and external aspects of the organisation that results in actions in a socio-economic context. Strategies in business provide the framework for plans by channelling operating decisions and often precede them. Strategies focus on direction of activities by specifying what activities are to be undertaken for achieving organisational objectives. Strategies ensure organisational effectiveness. Strategies contribute towards organisation effectiveness by providing satisfaction to the personnel of the organisation.

In summary, as illustrated in Figure 30: Vision and Strategy, vision and strategy is about why people in the organisation should feel motivated to perform at a high level. Together, strategy and vision define the strategic direction for a business. They provide the what, who, how, and why necessary to powerfully align action in complex organisations.

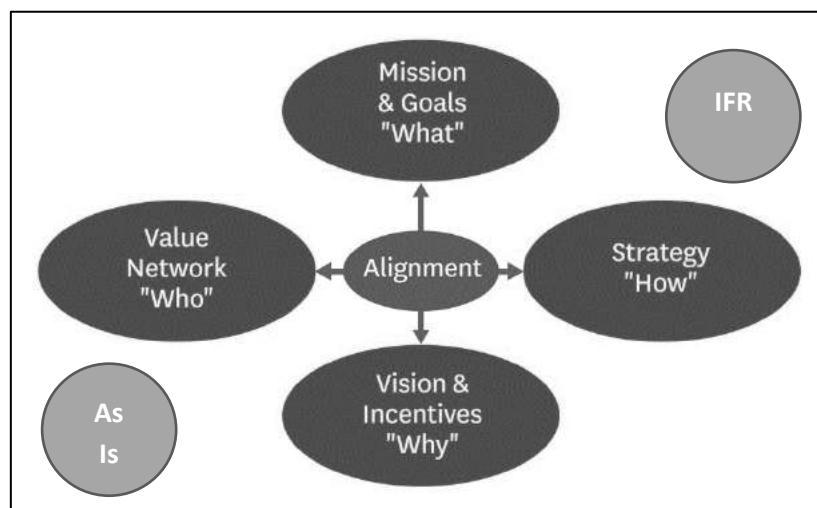


Figure 30: Vision and Strategy (Author's own work)

4.12.5.3 Systems

This is a very general term which can mean many things, such as management systems, information systems or business systems. Systems thinking is a terminology that is used in an organisational sense to describe organisations as living systems.

The field has developed alongside the growth in the complex nature of global organisations.

Systems thinking provides the tools to understand organisational behaviour from a holistic and interconnected perspective. Treating organisations as living systems implies that they will follow behaviour patterns, such as self-organising systems, and they will develop and learn over time. Peter Senge (Senge, 1990) took this concept and developed the concept of a 'Learning Organisation'. He described systems thinking as:

“A framework for identifying patterns and inter-relationships, seeing the big picture, avoiding over-simplification, overcoming linear thinking and dealing with issues holistically and comprehensively”.

(Senge, 1990)

The purpose of highlighting this particular model of an organisation is to show that all parts of an organisation should agree on the mission, or shared values of their organisation and they should have the process that increases learning (and therefore knowledge) and communication.

4.12.5.4 Resources

Organisational resources are all assets that are available to a firm for use during the production process. The four basic types of organisational resource are human, monetary, raw materials and capital, or as often described:

- Men
- Money
- Machine
- Material

Organisational resources are combined, used, and transformed into finished products during the production process.

Organisations use different resources to accomplish goals. Management and strategy both play a vital role in resource management. Management control involves balancing

the various management operations. From the basic role and objectives of management, the following functions can be derived:

- Setting direction: creating a shared vision and formulating and implementing strategy.
- Building resources: acquired externally or developed internally.
- Creating infrastructure: designing a structure that allows growth including removing barriers to learning and developing processes to promote learning through incentives.

Together management and management control form a balanced leadership cycle for guiding and controlling resources of an organisation (Lawler, Lakoff and Johnson, 1983; Lakoff and Turner, 1989; Inns, 2002).

4.12.5.5 Leadership

Leadership can be defined as the inner capacity of a human community to create its own future (Senge, 1999). Leadership comprises all processes that must be performed for a firm to remain viable (Gueldenberg and Hoffman, 2000). Viability can be sustained by an organisation's structural plasticity and an organisation's learning capability with respect to itself and its environment.

“A company that lacks the learning capacity necessary to make the adjustments required by environmental influences loses viability over the long term. If, on the other hand, the firm makes the required structural modifications without sacrificing its identity, it not only guarantees its survival but increases its future learning ability. Learning capability is the basis for viability, and viability in turn increases the learning ability of the firm. This forms the basis of the reinforced dynamic leadership cycle.”

(Gueldenberg and Hoffman, 2000)

At any moment on any day, most executives are engaged in some aspect of decision making: exchanging information, reviewing data, coming up with ideas, evaluating alternatives, implementing directives, following up (Friedman, 1962; Brousseau *et al.*, 2006). In their 2006 paper Brousseau *et al.* have distinguished four styles of decision making:

- Decisive – speedy, efficient and consistent. Values honesty, clarity, loyalty and brevity
- Flexible – focuses on speed along with adaptability so can quickly change course if needs be
- Hierarchic – less speed more analysis and will challenge other people’s views, analysis and decisions
- Integrative – broad scope, overlapping with other related situations

4.12.5.6 Innovation

Innovation is inherently a highly cross-functional activity that, when it works well, creates a constructive tension between competing objectives of development cost, product value, performance, quality and time to market (Neilson, Pasternak and Mendes, 2010).

Some authors define innovation as a process with a set of requirements that any theory of innovation must satisfy. In doing so, innovation is seen to have links internally to capability, problem solving and potentiality. One of the world’s top innovation experts that the author worked closely with for many years, Darrell Mann, in his book ‘Hands-on Systematic Innovation’, gives a very simple definition of what is meant by the word – Innovation = successful step change.

Successful in this context means that the new thing, whether it is a new product, process, advertising campaign or way of doing business, has made a net positive impact on the balance sheet. Step-change meant that there was a distinct, discontinuous shift from one way of doing something to another (Mann, 2010).

4.12.5.7 Knowledge

Organisational Learning is a process by which knowledge about action outcome relationships between the organisation and the environment is developed (Daft and Weick, 1984).

Theorists offer varying perspectives on three dimensions:

- The level within an organisation in which learning occurs (individual, group or the organisation);

- Definition of learning;
- Essential structures, competencies or practices for the learning organisation.

Some researchers believe that learning only happens on an individual level, whereas those in disagreement believe that group and organisational levels are just as important to understand.

“Concentrating on individual learning does not explain how interpreted communicable, consensual knowledge can be developed...this reaffirms the importance of taking the organisation and its structure as the agent of the process.... Only learning embedded in the standard operating procedures, methods of communication and co-ordination and shared understanding about tasks have a persistent effect.”

(Nicolini and Mezner, 1995).

“Organisations, unlike individuals, develop and maintain learning systems that not only influence their immediate members, but are then transmitted to others by way of organisation histories and norms... Organisations do not have brains but they do have cognitive systems and memories.”

(Fiol and Lyles, 1985).

“Learning is a system-level phenomenon because it stays with the organisation even if individuals change.”

(Nevis, DeBella and Gould, 1995)

Wiig (Wiig, 1993) proposed his Knowledge Management (KM) model with a principle which states that, knowledge can be useful if it is well organised. There are some useful dimensions to be noted in Wiigs KM model. They are:

- Completeness
- Connectedness
- Congruency
- Perspective and purpose

Boisot (Boisot, 1999) proposes two key points that are summarised as:

1. The more easily data is converted to information the more easily it is diffused.
2. The less the data is structured requires a shared context for its diffusion, the more diffusible it becomes.

What seems clear from both Boisot's model and that of Nonaka & Takeuchi (Nonaka and Takeuchi, 1996) is that the process of growing and developing knowledge assets within organisations is always changing. Organisations are living organisms that must constantly adapt to their environment.

This means that the knowledge management strategy identified as appropriate at one moment in time will need to change as knowledge moves through the organisational learning cycle to a new phase. The rate at which this cycle operates will vary from one sector to another, so that in some rapidly evolving sectors new knowledge is being created and applied in rapid succession, while in some more established sectors, the cycle time of innovation is much slower.

4.12.5.8 Process

There have been many characterisations of process theory (Markus and Robey, 1988; Soh and Markus, 1995; Ramiller and Pentland, 2009; Recker *et al.*, 2009; Radeke, 2010). These vary in emphasis from event sequences where focal actors generate the events (Ramiller and Pentland, 2009; Radeke, 2010), to associations between concepts that are “necessary” rather than “necessary and sufficient” involving changes of state (Markus and Robey, 1988), and sequences of activities or capabilities connected by data flows (Wheeler, 2002). From this description, and with reference to the comparison hierarchies, the following seven characteristics could then also be placed under the heading process: Culture, Control, Feedback, Management, Communication, Information, and Decision-making. All of these characteristics therefore need to be considered organisational processes that are mechanisms used in any transformation.

4.12.6 Reflective Learning

Just as the bird sings or the butterfly soars, because it is his natural characteristic, so too do organisations have a set of defined characteristics that are predictable yet irrational. In defining characteristics for an organisation, you must be cognisant of that irrationality and that predictability. The Literature Review allowed the author to

challenge much of his thinking and establish a process of observation, re-examination and reflection.

4.14 Re-examination of Literature 2017/2018

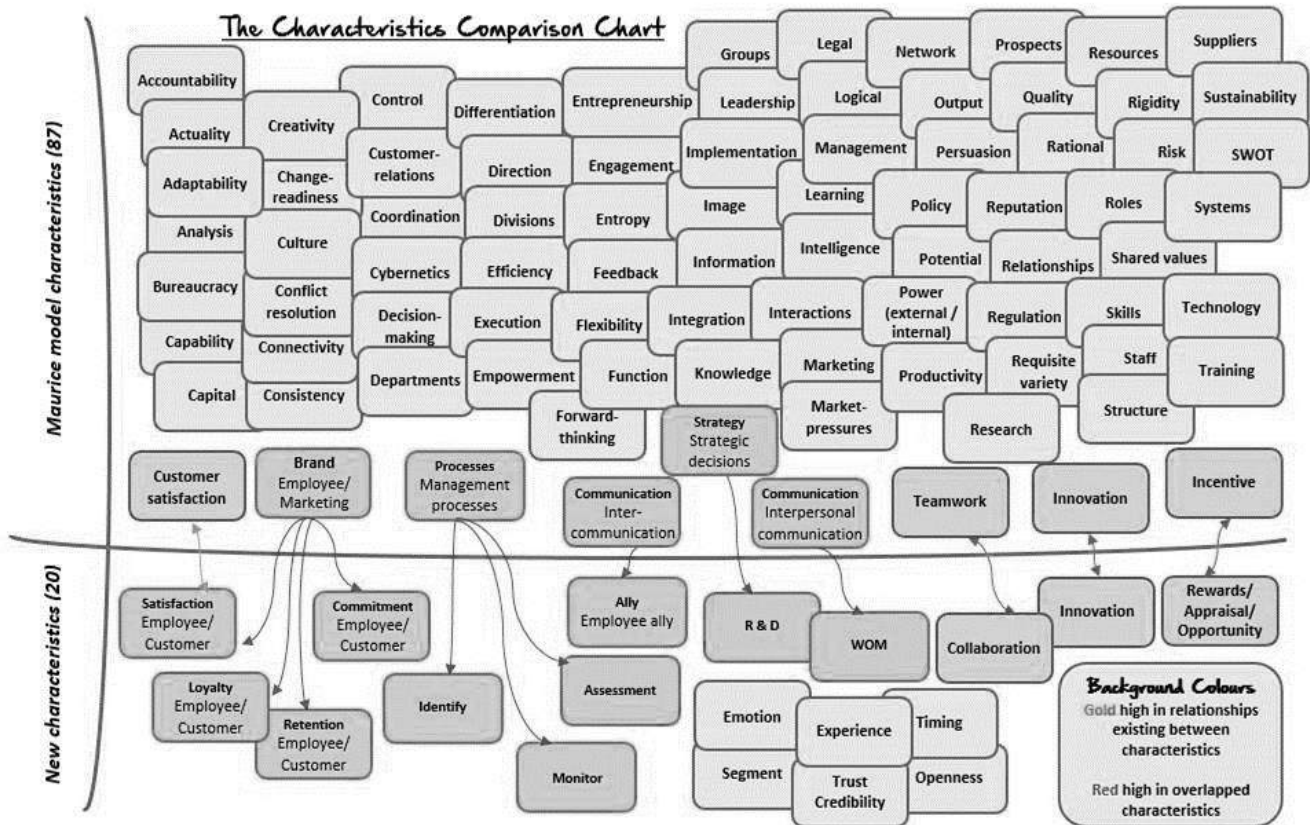


Figure 31: The Characteristics Comparison Chart (Author's own work)

In a re-examination of the literature as shown in Figure 31: The Characteristics Comparison Chart. Across academic and business sources during 2017 and 2018, the key characteristics established in the initial identification and screening were confirmed. The reference work is contained within Appendix 8. The review confirmed that organisational change and development are dynamic concepts and are a compulsory phenomenon for each and every organisation, irrespective of private sector or public-sector positioning. This also reflects a state of constant change as more and more organisations adopt to an ever-changing market. The emergence of new economies has ushered in imminent business opportunities for many private and public-sector organisations, giving them the opportunity to re-examine their overall structure, operating procedures and signature practices. This has resulted in most

traditional organisations, for example, public sector organisations, accepting the phenomenon of change and often coming to realise that if they do not change and innovate they will perish (Beer & Nohira, 2000). However, this is easier said than done. Beer and Nohria stated that,

‘...change remains difficult to pull off’, most organisations ‘have had low success rates [and] the brutal fact is that about 70% of all change initiatives fail’

(Beer & Nohria, 2000)

Likewise, Macredie, Sandom and Paul (Macredie, Sandom and Paul, 1998) maintain that successful private or public sector organisations of the future must be prepared to embrace the concept of change management or face extinction. Also, according to Beer and Nohria, many organisations fail in their change initiatives because senior personnel tend to rush these initiatives into their organisations, losing focus and becoming overwhelmed by the literature, advising on why organisations should change, what organisations should strive to accomplish and how organisations should implement change. Thus, it may be argued that implementing change in both private and public organisations is no easy task to accomplish.

The purpose of the re-examination of the literature is to review earlier research on various factors related to organisational change and development. The aim of this review was to identify any gaps in the existing body of literature, and conclusions arrived at during the previous in-depth research carried out between 2013 and 2016. After all, Alkaya and Hepakt (Gor. Asil Alkaya and Gor. Erdem Hepaktan, 2003) state that organisational change has a rich and varied history and as such any research must be constant and updated. The review of the literature looked at many of the earlier research to establish if there were any updated publications and looked at new research as described in Table 7(see Appendix 9 for details).

7.1	Cosenz, F. (2017). Supporting start-up business model design through system dynamics modelling. <i>Management Decision</i> , 55(1), 57–80. https://doi.org/10.1108/MD-06-2016-0395 (Cosenz, 2017)
7.2	Apostolopoulos, C., Halikias, G., Maroukian, K., & Tsaramirsis, G. (2016). Facilitating organisational decision making: a change risk assessment model

	case study. <i>Journal of Modelling in Management</i> , 11(2), 694–721. https://doi.org/10.1108/JM2-05-2014-0035 (Apostolopoulos <i>et al.</i> , 2016)
7.3	Wang, F., Chen, J., Wang, Y., Lutao, N., & Vanhaverbeke, W. (2014). The effect of R&D novelty and openness decision on firms' catch-up performance: Empirical evidence from China. <i>Technovation</i> , 34(1), 21-30. (Wang <i>et al.</i> , 2014)
7.4	Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices: The mediating effect of training. <i>Journal of Operations Management</i> , 28(2), 163-176. (Sarkis, Gonzalez-Torre and Adenso-Diaz, 2010)
7.5	Cullen, K. L., Edwards, B. D., Casper, W. C., & Gue, K. R. (2014). Employees' adaptability and perceptions of change-related uncertainty: Implications for perceived organisational support, job satisfaction, and performance. <i>Journal of Business and Psychology</i> , 29(2), 269-280. (Cullen <i>et al.</i> , 2014)
7.6	Sonenshein, S., & Dholakia, U. (2012). Explaining employee engagement with strategic change implementation: A meaning-making approach. <i>Organisation Science</i> , 23(1), 1-23. (Sonenshein and Dholakia, 2012)
7.7	Choi, J. N., Sung, S. Y., Lee, K., & Cho, D. S. (2011). Balancing cognition and emotion: Innovation implementation as a function of cognitive appraisal and emotional reactions toward innovation. <i>Journal of Organisational Behavior</i> , 32(1), 107-124. (Choi <i>et al.</i> , 2011)
7.8	Stensaker, I. G., & Meyer, C. B. (2011). Change experience and employee reactions: developing capabilities for change. <i>Personnel Review</i> , 41(1), 106-124. (Stensaker and Meyer, 2011)
7.9	Smollan, R. K., Sayers, J. G., & Matheny, J. A. (2010). Emotional responses to the speed, frequency and timing of organisational change. <i>Time & Society</i> , 19(1), 28-53. (Smollan, Sayers and Matheny, 2010)
7.10	Abrell-Vogel, C., & Rowold, J. (2014). Leaders' commitment to change and their effectiveness in change—a multilevel investigation. <i>Journal of organisational change management</i> , 27(6), 900-921. (Abrell-Vogel and Rowold, 2014)
7.11	Agote, L., Aramburu, N., & Lines, R. (2016). Authentic leadership perception, trust in the leader, and followers' emotions in organisational change processes. <i>The Journal of Applied Behavioral Science</i> , 52(1), 35-63. (Agote, Aramburu and Lines, 2016)
7.12	Jiao, H., & Zhao, G. (2014). When will employees embrace managers' technological innovations? The mediating effects of employees' perceptions of

	fairness on their willingness to accept change and its legitimacy. <i>Journal of Product Innovation Management</i> , 31(4), 780-798. (Jiao and Zhao, 2014)
7.13	Cohen, J. (2010). Cognitive, affective and behavioural responses to an ERP implementation: a dual perspective of technology acceptance and organisational change. <i>ACIS 2010 Proceedings</i> . (Cohen, 2010)
7.14	Parent, J. D., Sullivan, C. C., Hardway, C., & Butterfield, D. A. (2012). A model and test of individual and organisation factors influencing individual adaptation to change. <i>Organisation Management Journal</i> , 9(4), 216-235. (Parent <i>et al.</i> , 2012)
7.15	Smith, M., Busi, M., Ball, P., & Van der Meer, R. (2008). Factors influencing an organisation's ability to manage innovation: a structured literature review and conceptual model. <i>International Journal of Innovation Management</i> , 12(4), 655–676. (Smith <i>et al.</i> , 2008)

Table 7: Updated Publication Research (Author's own work)

The characteristics comparison chart in Figure 31: The Characteristics Comparison Chart, comparing organisational characteristics of the 2013-2016 research to the 2017-2018 research confirms that the characteristics identified by the previous research study remains true.

Reflective Learning

Progress is dependent upon a productive and dynamic tension, the practitioner's instincts and knowledge, and the clarity and newness of academic research. Practitioners are stewards of our collective organisation direction; academics are responsible for the stars we seek. Our vision has to be a combination of the two.

4.15 Conclusion

The process followed in the literature research 2013 – 2016 examined business models, key metaphors and supporting characteristics as outlined in Figure 33.

The conclusions drawn from this research provided a robust set of characteristics, and the comparison of the two sets of research confirmed that the two sets of work validated each other. Combined with the author's ongoing practitioner experience,

research, fieldwork, and critical examination, the characteristics are constant and consistent.

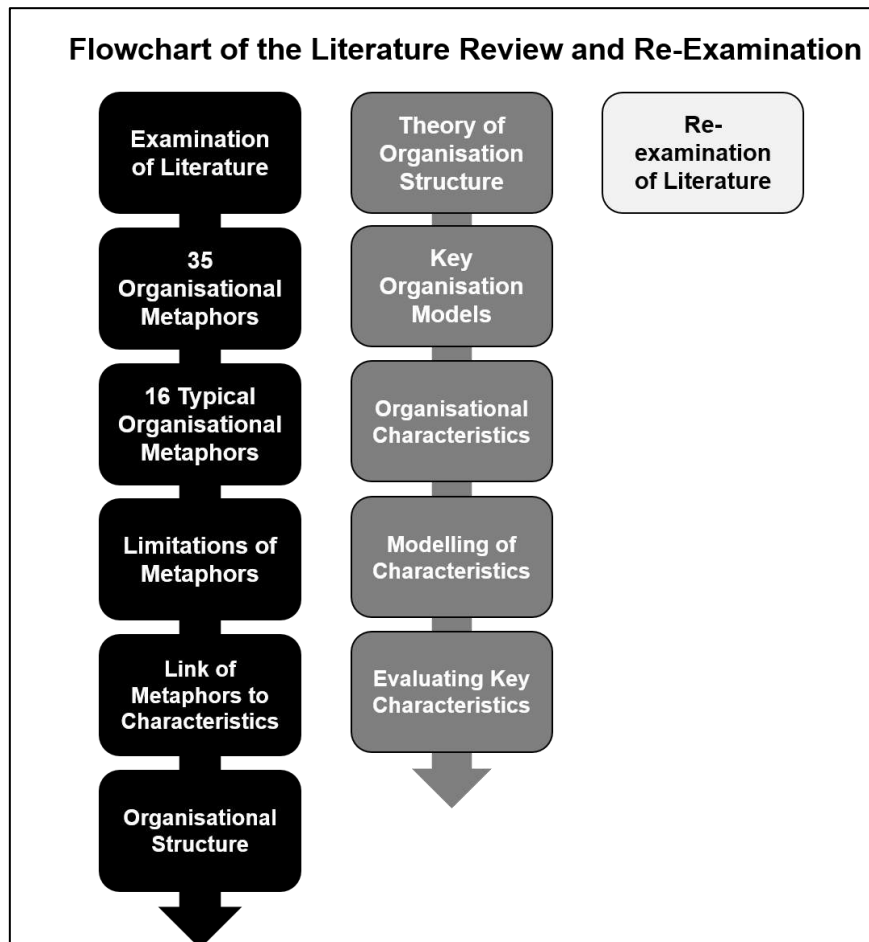


Figure 32: Flowchart of Literature Review and Re-examination (Author's own work)

Figure 32: Flowchart of Literature Review and Re-examination is a visual representation of the work completed, showing the connections between the metaphors and characteristics. The frequency of connections between the groupings shaped the author's thinking regarding the hierarchy. The academic research, together with the author's extensive practitioner experience, the case studies, and the organisation models studied allowed for conclusions to be drawn on the importance of some characteristics over others. This resulted in the conclusion that the model must include; Strategy and Vision, Change and Innovation, Resources and Leadership, Output and Value, and Process and Systems as the key bases. Many other of the 88 characteristics noted were sub-systems of these key characteristics and therefore would be included in the analysis.

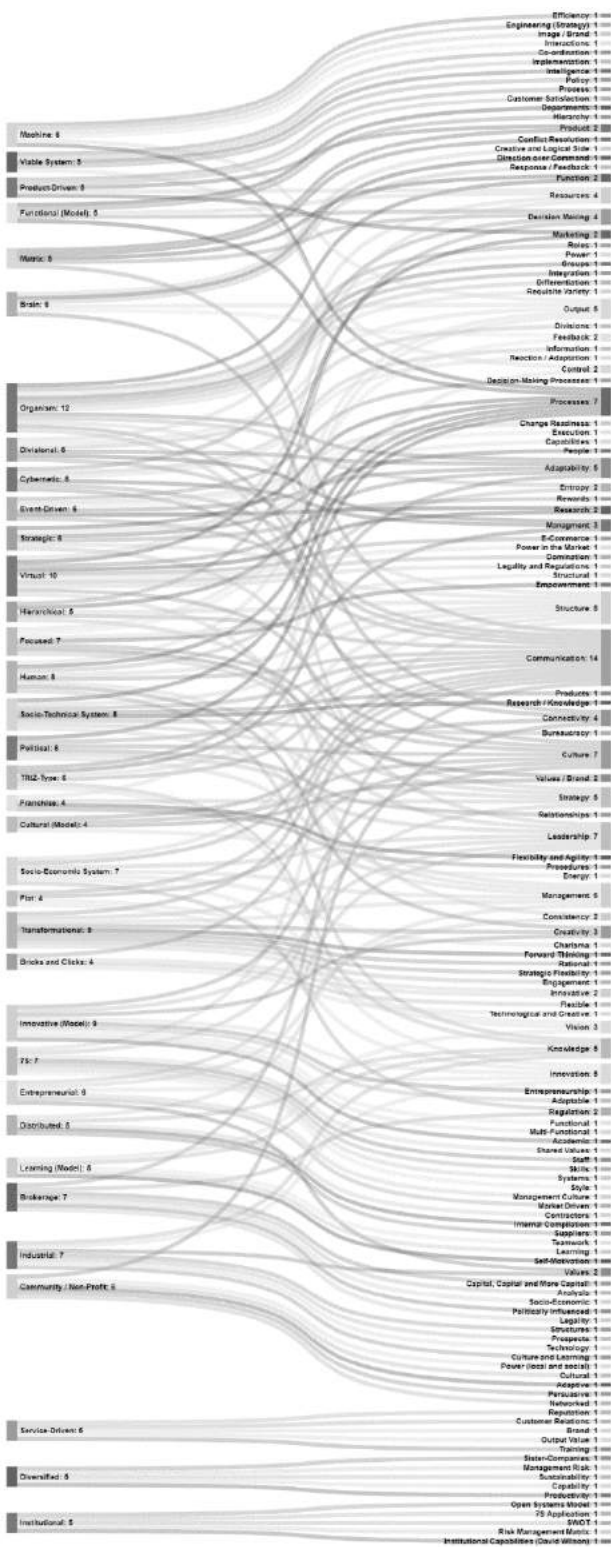


Figure 33: Connections between the metaphors and characteristics (Author's own work)

(Expanded and downloadable versions can be found in Appendix 14)

Figure 33: Connections between the metaphors and characteristics connecting those which are base characteristics, those that are sub-set characteristics and their connected metaphors

The aim of the next stage of the research is to examine how this research can facilitate change and transformation with a dynamic visual representation of where an organisation is now and where it wants to be at a defined point in the future. This will build upon the research completed and incorporate ongoing tracking on characteristics, metaphors and new business models in academia and the marketplace. The output must be interactive and able to operate across multiple levels. It needs to show not only an overall view of an organisation but highlight the various links and relationships within it. In addition, it should also provide information on what the relationships are between its key characteristics, so that if one is changed, there is an understanding of the possible effect of this change on others.

5.0 Research Methodology

“The secret of change is to focus all of your energy, not on fighting the old, but on building the new.”

(Millman, 2000)

5.1 Research Aims

The aim of this research project is to investigate the possibility of facilitating change and transformation through the application of a visual framework – a framework which can accurately describe where an organisation currently is, as well as its future desired destination. The output of the visual framework needs to be interactive, and capable of incorporating multiple levels of complexity. The model must show an overall view of an organisation as well as the various links, relationships and interacting factors within the various dimensions of the organisation. In addition, it should also define dynamic relationships between its key characteristics, so that if one key characteristic is changed, the effect on others can be anticipated or quantified. All transformation and change needs to be operationally effective and so this model and framework must deliver on this expectation.

The author is native to the topic under consideration (Bonner and Tolhurst, 2002). After 30 years' experience of operating in the change domain he has an unrivalled understanding of the research topic, which includes the ability to interact naturally and develop relational intimacy. A key challenge for the researcher was if he should

subordinate the inquiry to the other activity or treat it as primary. Therefore, a key component of the author's role in this ongoing research was a two-fold approach: first as an "insider" in the first instance where the author will continue to study the domain in which he practises, and second as an "outsider" where the author applies third party research to other control groups in order to validate knowledge and any new findings or assumptions. One caveat of this approach is that as an insider, there is the risk that the author may not remain entirely objective, and particularly could be liable to making erroneous assumptions based upon previous experience and / or knowledge (Gerrish, 1997; DeLyser, 2001; Hewitt-Taylor, 2002; Pitman, 2002). In developing the research plan the author was very conscious that for this research to be acceptable, he needed to ensure that the methodological and ethical boundaries applied were vigorous, robust, factual, highly objective and that they were applied rigorously. It was important to the author that the knowledge acquired from his field work, the ease of interaction he had with the topic being researched and the access he had was all carefully balanced with consciousness of the subjective bias that this may engender (Pugh, Mitchell, & Brooks, 2000).

In reviewing the research methodology the three key advantages of being an insider to a research domain outlined by Bonner & Tolhurst (Bonner and Tolhurst, 2002) were particularly relevant to the researcher: a superior understanding of the culture, an ability to interact naturally, and a previously established and therefore greater relational intimacy.

It is necessary for the author to remain vigilant of his biases, knowledge and experience. This was described as acting as a 'paradigm warrior', defined within Burrell and Morgan's highly influential *Sociological Paradigms and Organizational Analysis* (Burrell and Morgan, 1979). A process of reflection must be ensured around the commitment to the identification and rectification of anomalies or discrepancies within existing theoretical approaches and the author's own experience and knowledge. Furthermore, it is imperative that a balance is struck between the applications of pure methodological processes and that dogmatic positions are challenged.

The primary focus of the research in this project is to advance knowledge about the practice of organisational change, and to advance the knowledge within organisational

change practice. This research was based upon the outcome of the author's practice. Some of the challenges experienced and which were addressed by the author included his own personal knowledge and expertise. An extensive survey of the literature was carried out, with the aim of bringing a new contribution to knowledge. The author was fully aware of, and constantly revisited, their own personal preconceptions and biases with the intention of ensuring no assumptions were made.

A robust methodology was built, in order to constantly challenge the author's thinking. Contradictions were sought out, and then used to inform and recalibrate thinking. Biases were constantly questioned to ensure that existing practitioner knowledge was not clouding the research at hand. All data was interrogated equally, ensuring that no data was given more prominence – be it data gathered from existing literature, or gathered directly by the author. The end goal of achieving break through knowledge remained at the forefront throughout the process.

The author also needed to consider their existing relationships with those participating in the research. There was a greater need for awareness with regard to potential for bias in the way the individuals answered the questions or responded to the interviews which the author conducted. By keeping the awareness of these potential biases at the forefront of the methodology, they were constantly considered and addressed throughout the process. The other areas that were actively sought out to address were Theory development; Interview Methodology; Case Studies and Questionnaire Development.

Back in 2009, additional research was undertaken by the author on factors which could promote organisational health and, of equal priority, factors which adversely affect organisational health. This research was developed from a significant programme that the author was implanting in a very large global business. The control group in this study was composed of individuals from around the world whose businesses had been coached by the author. In the author's day to day role, coaching sessions are conducted in their organisation at a rate of approximately 400 sessions per month. Since 2009, the author has been involved in thousands of individual organisational health analyses, including the effects on organisational change. With the assistance of one major client, the author devised an organisational health questionnaire which was subsequently completed by participants following each coaching session. In the

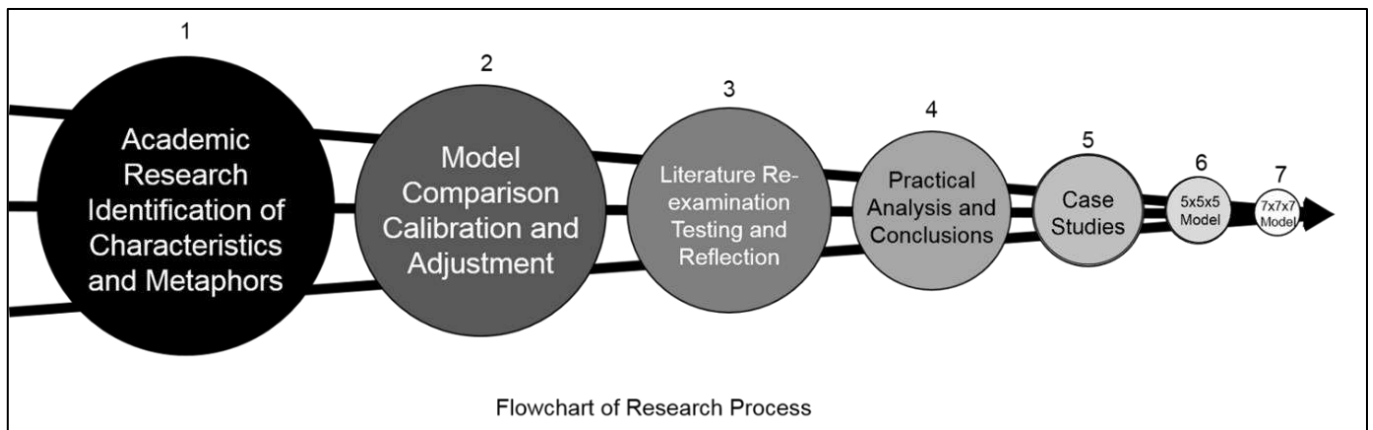
10 years that the author has been involved in the research he has amassed a data set encompassing 13,000 leaders across 10 global companies. The author's findings from this research, conducted by his company Blackswan, are described in Figure 34.

- 1. Most Organisations are unhealthy.** More than 65% of the control group found their organisations exhibit “unhealthy” profiles of one kind or another (i.e. Reactive, lack of clarity/identity, passive-aggressive, fits-and-starts, lack of execution, silo mentality, outgrown, and over managed).
- 2. Organisational DNA changes as companies grow.** Resilient and just-in-time behaviours are more prevalent in smaller units or companies. The drive for centralisation, control and more top down dictates are apparent as growth kicks in. Larger organisations are in constant centralising or decentralising mode.
- 3. Differences in opinion within hierarchy.** There are sharp differences between senior leadership responses and those further down the organisation. Senior Leadership's perceptions of how the organisation is running are at a variance with how actually the organisations are running.
- 4. Change and innovation identified but not delivered.** Change and innovation are deemed important by over 70% of control group but the greater the need for change and innovation the slower the process, particularly in large organisations (over 55%).
- 5. The lower you are in the organisation the more micromanaged you feel.** Challenge growth and opportunity are the primary drivers of engagement (over 75%). The need to be involved in decisions was particularly high at lower levels, at over 70%, and the feeling of being micromanaged was particularly relevant again at lower levels of the organisation, at over 55%.
- 6. Decision rights are unclear.** Over 60% indicated they believed that the accountability for decisions and actions was unclear in many parts of their organisations.
- 7. Failure to execute.** Over 53% of the control group felt that “important strategic and operational decisions are not quickly translated into action” in their organisation. Information decay and decision rights are primary reasons for this failure.

Research on 13000 Leaders across 10 Global Companies 2009 – 2018 establishing the role health in organisation culture

Figure 34: Research on 13000 Leaders across 10 Global Companies (Author's own work)

Following on from the initial research which began in 2009, the goal of the current research project was to test the feasibility of building a multi-dimensional framework with which the author could visually define an organisation, identify its elements, and which of those elements could potentially impact upon its capacity for change. Also, the framework must be able to indicate how to facilitate change and transformation with a visual representation of what the organisation aims to achieve as a result of the process. To achieve this aim, the research validated if these assumptions were correct and addressed whether the model proved the supporting outcomes or demonstrated why these assumptions were false; as described in the introduction. The methodology adopted was a vigorous review of the current literature as described in Figure 35: The Flowchart of the Research Process.



Flowchart of Research Process as developed after each stage of review leading to the conclusion of a 7x7x7 model.

Figure 35: Flowchart of Research Process (Author's own work)

5.2 Critique approaches

An optimised research methodology was examined, which would apply a combination of quantitative and qualitative research methods as shown in Figure 36: Comparison of Research Methodologies as examined for the research process. This approach would facilitate triangulation, where the results of one method of data collection underpinned by one methodology can be used as a reference point to compare the results of an alternative, unrelated method, underpinned by an alternative methodology. Throughout this, the researcher remained aware that as a practitioner they run the risk of introducing bias, and thus need to ensure that the best system of research is identified – one which will challenge those biases and work synchronously with the researcher's expert knowledge.

5.3 Summary of research approaches

The following were identified as possible types of research methodologies (Walliman, 2001; Clarke, 2005):

- Experimental – Research is carried out in the context of a closed experimental system where the problem is removed from its context and studied in isolation.

- Descriptive – Relies on observation as a means of collecting data, attempts to examine a situation to see what can be predicted to happen again in the same circumstances.
- Action Based – Designed to deal with a specific problem in a particular context, the problem is not studied in isolation as with experimental research.
- Evaluation – Linked to descriptive research and deals with complex social issues, evaluation of the social constructs has a high dependency on the viewpoint of the evaluator.

These options for research methodology are examined below.

5.3.1 Experimental Research (Ostrom and Walker, 2003; Hon, Schickore and Steinle, 2008; Drager, 2018)

Advantages

- A high level of control is necessary with experimental research groups. There needs to be a very high level of control over the variables. By isolating and determining which variables are under examination, this can result in a great advantage in finding accurate results.
- Can be used across nearly all fields of research, and in many situations. While some see this type of research as basic, it is very efficient.
- Due to the high level of control and efficiency, clear cut conclusions can be drawn. As only one variable is tested at a time, the results are relevant, with clear indications of success or failure when analysing the data collected.
- There are many variations of this type of research, each one of which provides different benefits depending upon the situation and variables under study. The researcher therefore has the ability to tailor the experiment for their own unique situation, while still maintaining the validity of the research design.

Disadvantages

- Experimental research is largely subject to human errors. Any form of error, whether systematic, random or human, can destroy the validity of the experiment.
- Artificial situations can be created, caused by the high level of control held by the researcher. This can lead to data being skewed or corrupted to fit an outcome.
- The amount of time required to complete full research can be extensive, especially when limiting or studying individual variables.

5.3.2 Descriptive Research Methods (Rizzo Parse, 2001; Krishnaswamy, Sivakumar and Mathirajan, 2009; Creswell, 2014)

Advantages

- Subjects or participants are observed in a natural and unchanged environment.
- Descriptive research may be a precursor to future research because it can be helpful in identifying variables that can be tested.
- The data collection allows for gathering in-depth information that may be either quantitative (surveys) or qualitative (observations or case studies) in nature. This allows for a multifaceted approach to data collection and analysis.
- Descriptive studies result in rich data that is collected in large amounts.
- Surveys can be used by companies and organisations to study in beliefs, attitudes, behaviours and habits of members of a target audience, company or other organisation.

Disadvantages

- Participants or subjects may not be truthful or may not behave naturally when they know they are being observed.
- Descriptive studies cannot be used to correlate variables or determine cause and effect.
- Confidentiality can be an issue.

- Researcher bias may play a role in many ways. For example, the choice and wording of questions for the questionnaire may be influenced the bias of the researcher. The researcher may also make subjective choices about which information to record and emphasise in the findings.
- No variables are manipulated, therefore statistical analysis is not possible. The results are not repeatable and typically the study cannot be replicated.
- Findings may be open to interpretation.

5.3.4 Action based Research (Mertler, 2006, 2016; Coghlan and Brannick, 2014; McNiff, 2016)

Advantages

- A collaborative and adaptive research design that lends itself to use in work situations.
- Design focuses on pragmatic and solution-driven research rather than testing theories.
- When practitioners use action research it has the potential to increase the amount they learn consciously from their experience. The action research cycle can also be regarded as a learning cycle.
- Action research studies often have direct and obvious relevance to practice.
- There are no hidden controls or pre-emption of direction by the researcher.

Disadvantages

- It is harder to do than conducting conventional studies because the researcher takes on responsibilities for encouraging change as well as for research.
- Action research is much harder to write up because of the lack of an available standard format to effectively report findings.
- Personal over-involvement of the researcher may lead to the introduction of bias into the research results.

- The cyclic nature of action research to achieve its twin outcomes of action (e.g. change) and research (e.g. understanding) is time-consuming and complex to conduct.

5.3.5 Evaluation Research (Davidson, 2005; Stern, 2005; Kushner, 2016)

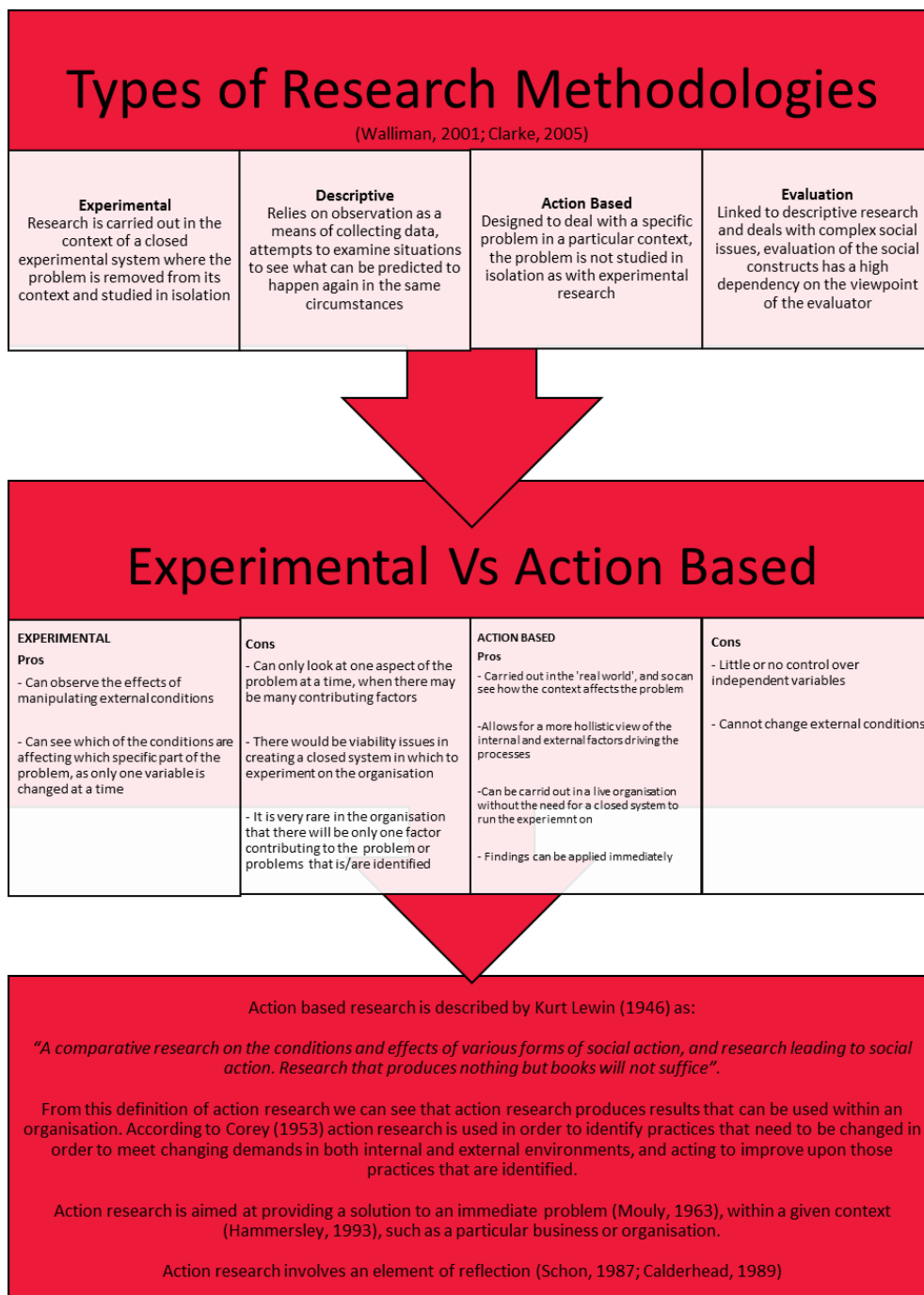
Advantages

- Subject materials can be evaluated with greater detail.
- Research frameworks can be fluid and based on incoming or available data.
- Qualitative research data is based on human experiences and observations.
- Gathered data has a predictive quality to it. .
- Qualitative research operates within structures that are fluid.
- Data complexities can be incorporated into generated conclusions.
- Qualitative research is an open-ended process.
- Creativity becomes a desirable quality within qualitative research.
- Qualitative research can create industry-specific insights.
- Smaller sample sizes are used in qualitative research, which can save on costs.
- Attitude explanations become possible with qualitative research.

Disadvantages

- The quality of the data gathered in qualitative research is highly subjective.
- Data rigidity is more difficult to assess and demonstrate.
- Mining data gathered by qualitative research can be time consuming.
- Qualitative research creates findings that are valuable, but difficult to present.
- Data created through qualitative research is not always accepted.
- Researcher influence can have a negative effect on the collected data.
- Replicating results can be very difficult with qualitative research.

- Difficult decisions may require repetitive qualitative research periods.
- Unseen data can disappear during the qualitative research process.
- Researchers must have industry-related expertise.
- Qualitative research is not statistically representative.



Comparison of Research Methodologies as examined for the research process

5.4 Research Methodology Process

Weighing up the advantages and disadvantages of the methodologies shortlisted, the final decision was taken to use Action-Based Research. This approach fits best with the stated research aims and questions and is ideally suited to use in work-based situations. In addition, as the author is also a practitioner in the area of study, there was the benefit of the possibility of the author learning consciously from the experience, as well as the obvious and direct relevance to the practice.

Action based research is described by Kurt Lewin as

“A comparative research on the conditions and effects of various forms of social action and research leading to social action. Research that produced nothing but books will not suffice”.

(Lewin, 1946)

From this definition of action-based research we can see that action research produces results that can be used within an organisation. The use of action research is growing (Mertler, 2006). Action research can be defined as,

“...an approach in which the action researcher and a client collaborate in the diagnosis of the problem and in the development of a solution based on the diagnosis”

(Bryman and Bell, 2011)

The use of action-based research involves a systematic inquiry wherein educators can utilise their knowledge as practitioners to change and improve practices (Kemmis, 2009). However, in most of the literature review there was a constant reference to the fact that action-based research design, and action research is relatively new. The literature indicates that action research has certain characteristics that are different from other research approaches. These are:

- Problem-solving in the research area (Koshy, 2005; Pine, 2009).
- In the research process the process is cyclical (Schmuck, 2006; Riel, 2010) (Schmuck, 2006; Riel, 2010).

- One of the most common comments was that practitioners tended to use action based research more (Mertler, 2006; Walter, 2009).
- Objectivity is not a major part of the activity (Kock, 2005)
- The inquiry has a social dimension (Walter, 2009).

The steps in this research project all fall within the definitions of action-based research. In conducting research, the author structured routines for continuous confrontation with the data to challenge his thinking. These routines are loosely guided by movement through five phases of inquiry described below:

- Identification of problem area
- Collection and organisation of data
- Interpretation of data
- Action based on data
- Reflection

This is best described in Figure 37: Visualisation of Process – Data Gathering, where the action is observed and always followed by reflection. The literature review and case studies were independently analysed, reflected upon and action then taken.

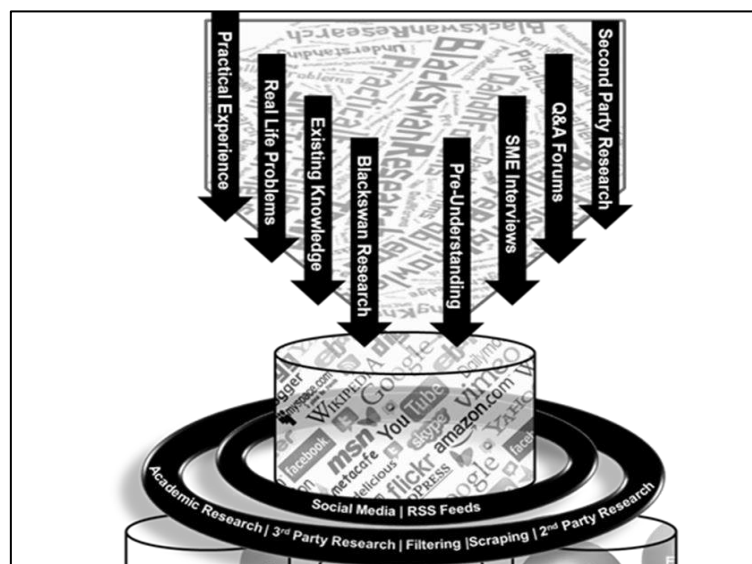


Figure 37: Visualisation of Process – Data Gathering (Author's own work)

This model shows the many sources used for research from practical research to real life problems, existing knowledge, academic research, subject matter interviews, Q&A forums, and second party research.

5.5 Reflective Learning

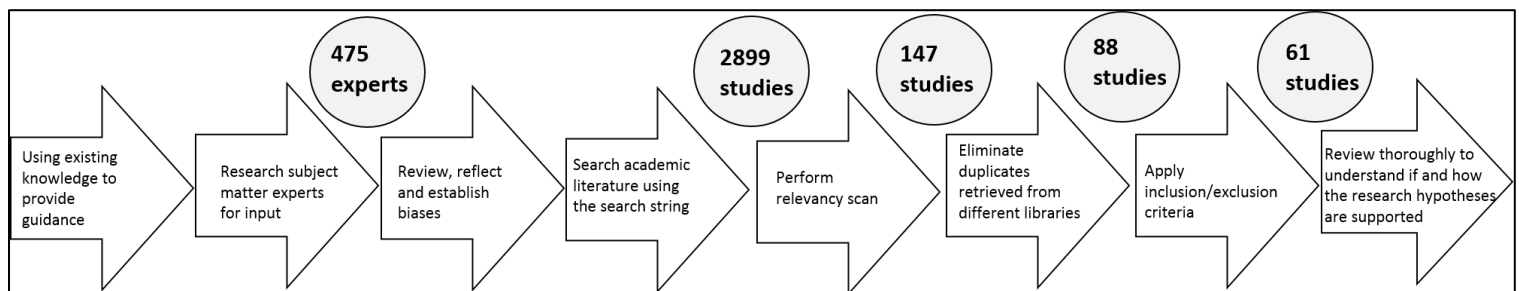
Every discourse, even a process of learning, carries with it a system of rules for producing analogous outputs, and thus it must be framed in a methodology in order to achieve a goal. Action must be planned, the outcome observed, learnings reflected upon, thinking reshaped, and action taken. The outcome must then be observed again, learnings reflected upon, and thinking again reshaped, over and over again. This process of restatement of the problem, re-examination of the solution, resetting of the thinking with constant reviews was hugely helpful in developing new thinking. Learning to unlearn before learning is a powerful process.

5.6 Theory Development

A wide variety of resources were reviewed prior to theory development, including literature such as text books, electronic sources, encyclopaedias and news and journal articles on change / behaviour / transformation. The flow of this is shown in Figure 38: The refinement steps in the action-based procedure and resulting number of articles. This was followed up by reading extensively on social sciences and change in books on anthropology, archaeology, economics, history, human geography, jurisprudence, linguistics, political science, psychology, public health, and sociology. This led to the realisation that there are a wide variety of techniques available for research for managing organisational change. In the literature review the author examined research methods, organisation science and change discipline. There are many theories that have been applied to organisational change as outlined in the literature review, for example: systems, organisational development, complexity, and social worlds. These map onto a widely accepted typology of organisational change, which suggests basic types of theory covering, external influences, known and unknown customers, innovation, emphasising goals, visions, burning platforms, strategies, people, evolution, Leadership, contradictions and conflict as triggers and mechanisms for change. Although this typology is not exhaustive, it will serve to illustrate the benefits of theoretical analysis. Reviewing the literature, as detailed in Figure 38, The

Refinement Steps in action-research, suggests that the following dimensions reveal differences and similarities between organisational change theories:

- Metaphor of organisation
- Analytical framework
- Trigger for change
- The appropriate characteristics
- The change processes
- The role of leadership
- Resistance to change
- The health of the organisation



The refinement steps in the Action Based procedure and resulting number of articles

Figure 38: Action Based Procedure (Author's own work)

The majority of theories consider using similar types of dimensions. This led to the construction of a database of areas to be explored. Most of the literature used in this thesis has been referred to previously by other researchers. During this research study the author has accepted it was impossible to entirely eliminate error. The decision was taken to seek out where this error could occur and from this point, try to minimise the opportunity for error.

5.7 Research Design

In order to test whether the characteristic framework which was previously collated in Figure 31: Characteristics Comparison Chart, can be used to support change management and performance improvement in organisations, this new thinking was applied to three case studies to ascertain if the “New Model” would capture the need for change and the journey to change in a new and more informative way.

The case studies were selected by the author on the basis of ongoing activities with which he was involved, and three very different organisations were selected. The organisations in question included one corporate, one public sector, one commercially focused. Further to these strategic differences, the geographic spread and reach of

each of the organisations spanned multiple geographies and crossed many diverse disciplines, which allowed for strengthening and interesting test cases.

The process detailed in *Figure 39: Case Studies Overview* was then designed. This process fits within the overall action-based research framework, and each case study was completed using this process. This allowed the author to act and observe, reflecting on the output before revising the plan for the next case study (of which there

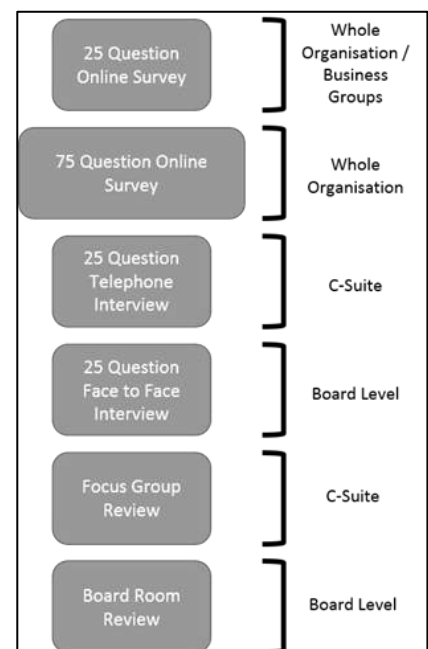


Figure 39: Case Studies Overview (Author's own work)

were three in total). As there are three elements of this process, each element was considered separately in terms of research design, before then being considered again as a whole, to ensure rigour and repeatability for the process.

A survey process was chosen for this research as it was determined that it best fits the needs and initially anticipated outcomes. The three case studies were based in global organisations, with respondents spread across several continents, and the variables under examination (such as the particular characteristics displayed within an organisation) are not easily observable, as they relate to both tangible (output) which can be measured through observation and intangible which cannot easily be measured through observation, for example attitudes and behaviours. In addition, due to the nature of the population under study (employees at various levels of an organisation, from management to board level), (the geographic spread of the population under study) the unobtrusive, easily schedulable nature of an online survey, with review group meetings, was determined to be the best fit.

An additional benefit of the survey methodology was that it allowed for a large sample size from each organisation, and thus for the research as a whole. Large sample sizes allow for the detection of small effects within the population, identifies outliers, provides more data to work with, provides more opportunity to identify contradictions and in a survey where multiple variables are being analysed, also allows for comparative analysis of population subgroups (for example, by business unit, geography, job title, gender or division).

Once the survey methodology had been selected, the response format then needed to be designed, considering the question wording, content, sequencing and format, both in terms of managing the responses and controlling for bias.

5.8 The Research Process

A variety of sources were drawn upon as a starting point for the research (illustrated in Figure 40: Semantic Scraping of Data). As a practitioner, the author has access to many sources of data, and these were utilised to provide an integrated, broad but detailed view of the landscape.

The implementation of change processes are usually a result of several strategic decisions by organisations according to (Schilling and Steensma, 2001). As

organisations seek to deal with the digital revolution, many have identified a need for new ways of working and also the ongoing need to improve business performance (Balogun and Hailey, 2008). Globalisation has had a significant impact on organisations and caused a major review of their strategic intents. This has resulted in many national companies rethinking their existing business models and restructuring and re-engineering their operations to reposition themselves in a global and more open market place (Dawson, 2003). In this regard, this research delivers on:

- The key characteristics and their inter-relationships that determine the nature, behaviour, and performance of business organisations. The literature review provided 23 metaphors and 88 characteristics and 12 major models of analysis.
- A model of these characteristics and their inter-relationships was established which can be used to support change management and performance improvement in business organisations. Following the literature review and comparisons to 12 different models, the new model was developed and tested in action-based case study modelling.

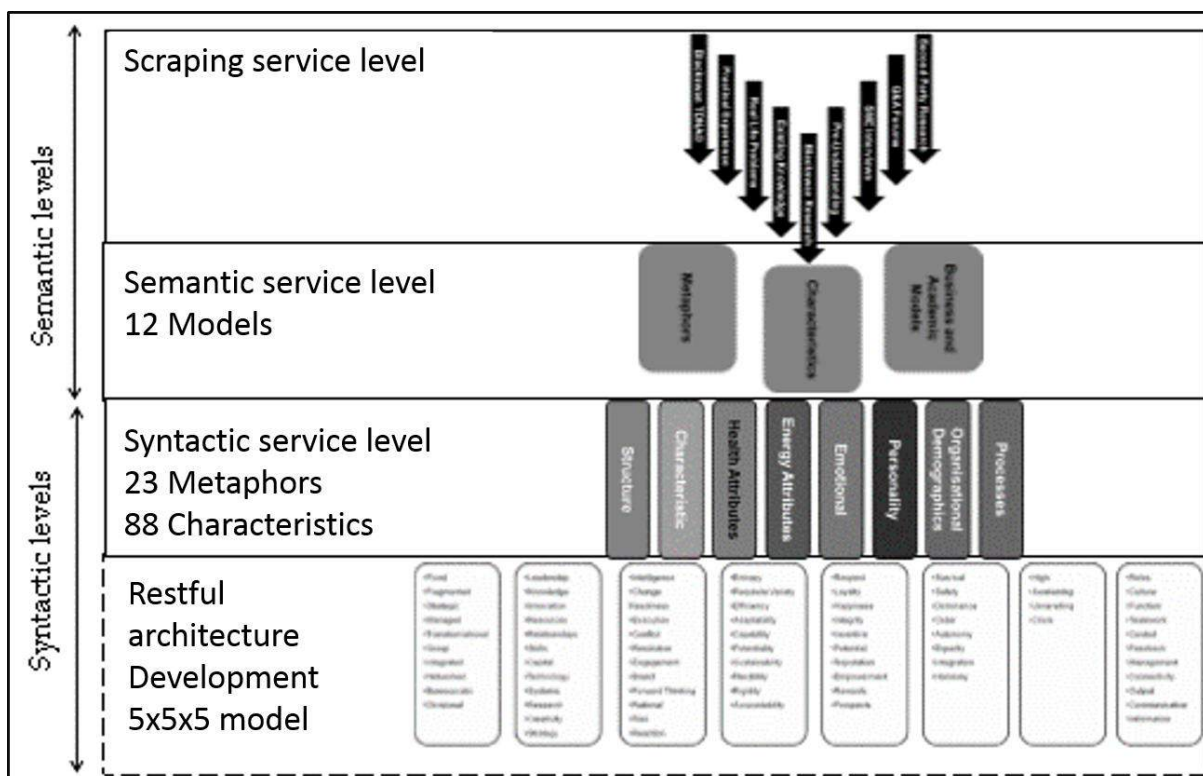


Figure 40: Semantic Scraping Framework (Author's own work)

(Expanded version available in Appendix 14)

Figure 40 describes the overall research process from the initial observations, data collection, and case studies to the final output of measurable architecture and characteristics.

The methodological process adopted started with a multitude of sources, as described in Figure 40: Semantic Scraping Framework including personal experiences, subject matter experts, existing knowledge, various questioning forums and second party researchers. This knowledge and expertise was challenged and tested within a comprehensive literature review and the outcomes modelled and tested to existing models and frameworks. The outcomes of this process were then tested and challenged with different case studies as shown in Figure 41: the Methodological Process.

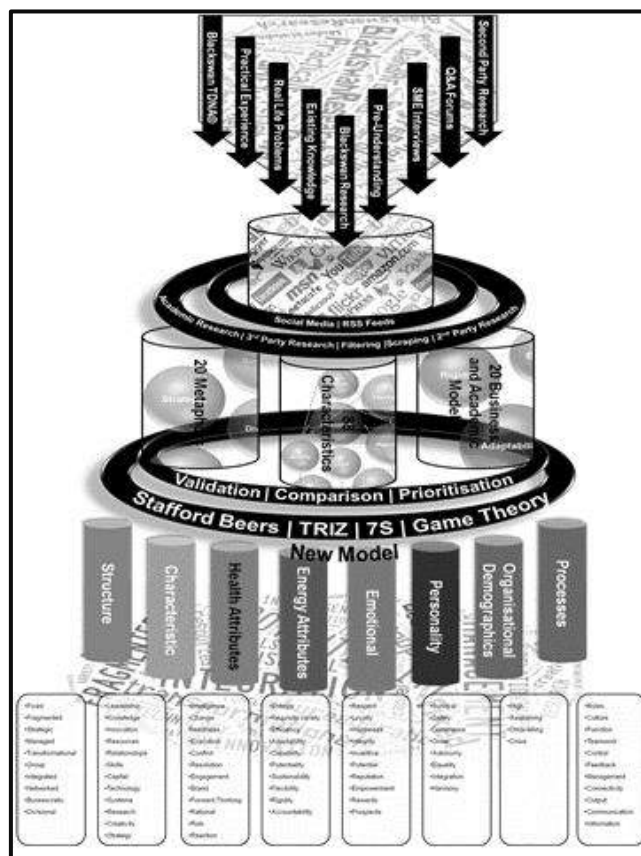


Figure 41: The Methodological Process

Figure 41 shows all sources and channels utilised during the research process and potential areas of future exploration. The detailed analysis of understanding the metaphors (23), characteristics (88) and business models (20) allowed for the development of the new model. The 8 key platforms of structure, characteristics, health attributes, energy attributes, emotional, personality, organisational demographics and processes represent the conclusions drawn.

The action-based methodology adopted for this thesis is action-research of investigation, observation, action, design, reflection, recalibrate, development reviews and recalibration, which is defined by (Bryman & Bell, 2011) as,

“An approach in which the action researcher and a client collaborate in the diagnosis of the problem and in the development of a solution based on the diagnosis”.

The research presented in this paper has followed the workflow design below:

- Data acquisition and pre-processing
- Design, Development and Deployment
- Analysis, reviews and modelling
- Communication, feedback, visualisation and layout.

Throughout the research process, the focus was mainly understanding the subjective experiences people felt in work through interpretative analyses and critical analyses of the data presented. This led to focusing on specific business processes and the means with which they could be improved upon. However, to achieve this, additional research was required in the form of case studies involving online surveys, telephone interviews, focus groups and face to face interviews. In order to align these with the action-based cast studies, these methodologies needed to be rigorous, repeatable and also flexible, allowing the outputs at each stage of process to inform the plan moving forwards. A process was designed to collect data as outlined in *Figure 45* to achieve the following three things:

- Selected characteristics that are applicable to a specific organisation.
- Score each characteristic based upon whether it can be found in an organisation.

- Scrape public information for new organisational metaphors and characteristics.

The research process achieved the following:

- Identify which characteristics the organisation is presenting to the world.
- Look at publications (internal & external), customer insights, social media, etc.
- Confirm any truths the organisation has about itself.
- Understand the signature practices and thinking, that is the way things really got done.
- Challenge and dispel any untruths the organisation holds about itself.

The New Model purpose was to measure the activity of the organisation as understood by the people within the organisation.

5.9 Comparing models with the real world

In this research the critical components are academic research, case studies and the author's experience and the ongoing field work the author was involved in. Case studies and action research are qualitative techniques, and the reasoning is inductive. A case study is more difficult to fully appreciate as it can describe both a method and a methodology. The author's practical world experience, coupled with the academic research completed led to the creation of a model that could potentially answer the research question posed. To test this theory in the real world, case studies were sought out. In completing these case studies, the author looked at what case studies could bring to the research. In reviewing the work of (Ragin and Becker, 1992) the author wanted to ensure that the case study methodology was robust and followed their guidance in making sure there were three case studies and that they were significant and comprehensive.

“The detailed examination of a single example of a class of phenomena, a case study cannot provide reliable information about the broader class, but it may be useful in the preliminary stages of an investigation since it provides hypotheses, which may be tested systematically with a larger number of cases”

(Abercrombie, 1984)

In selecting the case studies, the author sought a balance between theoretical knowledge and practical knowledge. The case studies selected were large samples and across three very different organisations, and therefore would reduce the risk of generalised conclusions which might arise from a single case. In addition, in any case study there contains a bias toward verification - it is difficult to summarise specific case studies. By expanding the research to a total of three case studies, the case studies were able to include large samples in very different environments across a range of business types and geographical global locations. The diversity of the case studies challenged the model and the conclusions drawn, subsequently informing the existing model and the future direction of the model development research.

The three case studies completed during the course of this research were:

- An outsourcing business that is shifting its commercial model onto a digital platform.
- A mining company that is looking to introduce new technology.
- A public-sector organisation, newly formed, that is looking to introduce new innovation.

The advantage of case studies is that they can add depth and realism to an audit / evaluation analysis by making it more 'real life'. They can also demonstrate the impact of processes, policies, or programmes in human terms. Case studies have been found to complement other methods well.

The disadvantages of case studies are that the event(s) described in, and results of, case studies are usually not generalisable in and of themselves. At each stage the action-based research model was used to inform any thinking or conclusions drawn summarised in Figure 42: Learning Process 2016. The case studies were applied to test, to challenge or to recalibrate assumptions within real life experience. The action-based research model methodology described in Figure 41: The Methodological Process formed the framework of the research project.

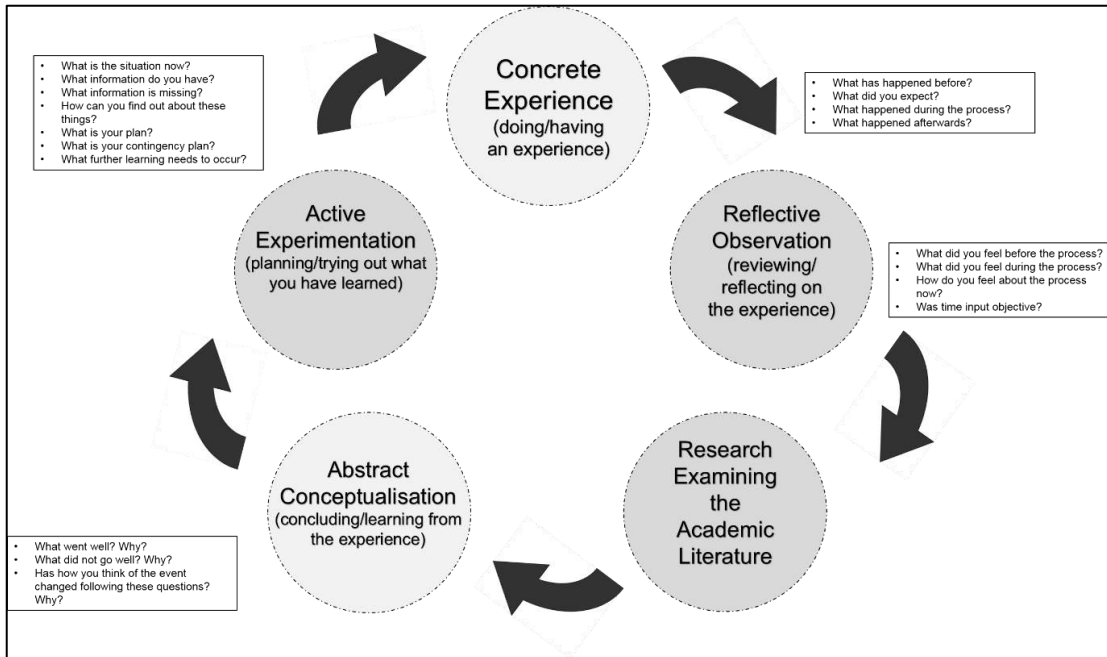


Figure 42: Learning Process 2016 (Author's own work)

Figure 42 demonstrates the cyclical approach adopted of experience reflection, conceptualisation and experimentation that flowed from practitioner to research to action-based analyses through case study in the conceptualisation of the model.

5.9.1 Reflective Learning

In the research of the metaphors, business models and characteristics, it is imperative to be conscious of the relationships and links and the application of thinking to case studies – it can be easy to narrow in on one particular element, but this must be avoided. The author had used many models of change and as is normal had preferred methodologies. This research opened their mind to the fact that there was a different way.

5.10 Case Studies

All case study protocols were tested against Pervan and Maimbo (Maimbo and Pervan, 2005) as in Table 8, to ensure standardisation, consistency, objectivity, ethical compliance and good communication.

Section	Content
Preamble	Contains information about the purpose of the protocol, guidelines for data and document storage, publication.
General Procedures	Provides a brief overview of the research project and the case research method Detailed description of the procedures for conducting each case, including down-to-earth details on contacts and timing.
Research instrument(s)	Interview guides, questionnaires etc. to be used to ensure consistent data collection.
Data analysis guidelines	Detailed description of data analysis procedures, including data schemas, priori codes etc.
Appendix A	Template letter to invite participants.

(Maimbo and Pervan, 2005)

Table 8: Case Study Protocol, (Maimbo and Pervan, 2005)

5.10.1 Data collection

A qualitative research design was adopted, aimed at engaging organisations around their desire for change and what that change would look like.

“This design allows us to develop insights that may be hard to acquire through the use of other research designs employing survey data or public documentation”

(Strauss and Corbin, 2008)

The three organisations selected for the case studies were as follows:

- An outsourcing business that is shifting its commercial model onto a digital platform.
- A Mining Company that is looking to introduce new Technology
- A public service newly formed Business operation that is looking to introduce new innovation.

These case studies were selected as they represented different markets, different businesses, different structures, and different systems, and were a mix of national and global. They all had one common goal which was to achieve sustainable change. Data

was gathered using online surveys issued to different demographic groups, semi-structured interviews with selected leaders in positions of authority, desk research based upon data sampling, observation of the self-assessment, and within the interview structure, a diagnostic workshop to review and reflect on the data collected with the management and executive teams.

Once the question content and sequencing process was finalised, a pre-test was undertaken. The author examined the key characteristics and constructed both a 75 and 25 question set to assess the organisational response to the model.

The questions were designed in conjunction with two subject matter experts. Key questions were tested and improved based on the feedback from a sample group of 20.

The purpose of this pre-test was four-fold:

- To test the responsiveness of the online platform
- To ensure completion time was within a 15-20-minute frame (to encourage completion and acceptance within organisations and employees who are often time-poor)
- To ensure that the data collected was compliant with data protection, and that no identifying information was gathered and / or transmitted.
- To ensure the data collected was suitable for analysing without having to apply extensive data transformation efforts.

After the pre-test was completed, and any adjustments to the research protocol were applied, data collection began. The questions were administered online using the LimeSurvey platform, an open source tool, utilising the self-hosted, and community edition. (LimeSurvey, 2016). LimeSurvey is an online survey provider, which provides free, customisable templates.

The online surveys were supported by telephone and face to face interviews. The author is a fully trained interviewer on objective based interviewing and deployed these skills in the conduct of all telephone and face to face interviews. The author is a trained psychometric assessor and has coached behavioural analysis over many years and

this learning and education was applied to the analysis. Significant pre-work was completed to ensure a clear understanding of the process, including significant communication by the author, with the organisations and the participants. Processes were defined for each of these and are briefly detailed below.

5.10.1.1 Online

Both the 75 and 25 question sets were administered as online surveys within the LimeSurvey environment. They were built using the LimeSurvey platform. LimeSurvey was chosen for ease of use, as it is a web app with built in statistical survey functionality, which means that it was easily accessible for all respondents, regardless of their geographic location. It is also fully customisable, allowing the question sets to be loaded exactly as designed, preserving the sequence and format.

To protect the privacy of participants, anonymisation was set on the survey, so that respondents could be invited to complete the survey by email, but there would be no link or relation between their contact details and their survey responses.

For telephone and face to face interviews, responses were recorded and then input into the LimeSurvey system and anonymised. Paper copies were disposed of securely. All respondents were advised of the survey's privacy policy and directed to the additional security information on LimeSurvey's website (LimeSurvey, 2018) prior to their responses.

5.10.1.2 Telephone and Face to Face Interviews

In addition to the online surveys, the 25-question set was also used with a sample of the population in telephone and face to face interviews. These types of interviews can be heavily influenced in terms of success or failure by the role of the interviewer, so this was taken into account in the design of the research. The interview process used triangulation to increase the precision of empirical research. The author used both the 75 and 25 questions set to ascertain different angles towards the assessment providing a broader picture.

The author sought to ensure bias elimination by using four different types of triangulation in structuring the process of the work (Stake, 1995). In completing the programme of work the author ensured;

- Data (source) triangulation—using more than one data source or collecting the same data at different occasions by the application of 75 questions, 25 questions, surveys, focus and review groups at different parts of the organisation.
- Observer triangulation—the use of the assessment and reviews allowed for the data to be validated by additional observers.
- Methodological triangulation— The use of assessments/interviews/focus and reviews allowed for the combination of different types of data collection methods, e.g. qualitative and quantitative methods.
- Theory triangulation—the development of the theories was as a result of experience, knowledge, literature review, case studies review groups which created a framework to allow using alternative theories or viewpoints.

All of the telephone and face to face research was conducted by the author to maintain consistency.

To ensure the validity of the data collected, the interviewer was fully aware of the nature of the study, the roles of respondents and the way in which data would be collected, stored and analysed. This also allowed him to clarify any concerns participants had, whether this was in regard to the research methods, definitions, privacy or questions themselves. As the interviewer was trained in various interviewing techniques and had a wide range of experience in the field, it was determined that he was in the best position to judge the accuracy of any responses, and therefore supplemented the notes with additional observations.

The case studies were all carried out in organisations with which the author had pre-existing relationships, therefore verifying authenticity was a relatively simple process as board-level buy-in had already been obtained. In both telephone and face to face interviews however, the briefings covered the purpose of the study, privacy, and explained the rationale behind the organisation's decision to take part. A telephone number to the relevant organisation's HR team was also provided, should participants wish to verify any of these details independently. An example of a briefing document can be found in Appendix 11.

During all interviews, the interviewer stuck to the designed script and question order, and the questions were presented in exactly the same manner, with identical wording, each time. In situations where clarification was sought on a definition or meaning, the interviewer referred to the pre-prepared definitions, created at the outset of the design process.

5.10.2 Data Analysis

Data collected should be sufficiently comprehensive to ensure that important conditions and consequences are considered. A full picture was obtained, and bias minimised.

Quantitative data was extracted from LimeSurvey, and combined with the supplementary notes from the interviewer prior to analysis. This data was then fully anonymised.

In looking at the use of data within research, the author adopted a three-phase process. The first phase (preliminary study) comprised the online survey to the case study population, with good communication on the context in which the research was performed (object of analysis), the privacy associated with it, as well as the purpose of carrying out the work. This next phase also included the case study organisation providing internal explanation and communication for the assessment, why the assessment should be completed, the reason for the research itself, as well as how the organisation would use the data collected and how any issues raised by the participants would be addressed.

The third phase began with ongoing analysis of the data by the author and evaluation. The work completed comprised verification of data, the structuring of the data, analysis on any obvious issues or gaps, and what was learned from carrying out the action research.

5.10.3 Board Level Feedback

After the survey data had been collated, feedback sessions were scheduled with board level individuals in each case study organisation, with the intention of feeding back the survey outputs and findings and gaining feedback from those leading the organisations on the results obtained. In each case study the results were presented back to the

group and at the board level a lively discussion facilitated to ensure the data collected was comprehensive and reflected accurately the opinions shared.

5.10.4 Sampling

Once the target organisations for each case study were selected, samples within each organisation were obtained.

It was determined that multiple case studies would be required early on in the research design process, and this allowed the research to sidestep the issues that often face single case studies, where they may not be representative of the population from which they are drawn, and when the intent is to observe a range of behaviours, experiences, outcomes and situations.

It must be noted however, that by including multiple case studies, this does impose a limit on the depth to which each case can be analysed.

5.10.5 Bias

The awareness of possible bias has been discussed previously, but this has generally focused on the effect of the author as an insider, and his experience as a practitioner. When conducting the telephone and face to face interviews, as well as feedback sessions, additional considerations needed to be made with regard to bias. These included the following:

- Key Informant Bias
- Respondent Bias
- Language Bias
- Geographic Bias
- Non-Response Bias

These potential biases were considered throughout the design process by the author. The sample sizes which controlled for attrition within the case studies also mitigated non-response bias.

5.10.6 Questionnaires Used in Survey

The questionnaires used to validate the model by survey, focus group and interviews were action research oriented. The question set is outlined in Appendix 11. The process used in this research involved repeated cycles of diagnosis, feedback, action planning, and change. The surveys were conducted across three organisations and different geographies though the use of online questionnaires, focus groups, interviews and leadership team's reviews. The results of these were fed back to the participants and major stakeholders in a very open dialogue. All feedback was collected and presented to the senior leadership team.

5.10.6.1 The structuring of the 75 and 25 Question Sets.

In structuring the survey questions, the author assumed that many participants would go through several cognitive and information-processing steps. In asking participants to answer objectively the questions asked, great care was taken to ensure that the participants fully understood the process; (Schwarz, Knäuper, Oyserman, Stich, Sirken, Hermann & Rasinski, 2000; Sudman, Bradburn, & Schwarz, 1996) state great care should be taken to ensure participants fully understood what is required of them. They also state that all participants must be able to recall the information. Their work shows that evidence from both the time taken to respond and general non-response rates suggests that the vast majority of respondents are able to provide answers to subjective well-being questions, and usually do so reasonably. Great care was taken by the author in the drafting and testing of the questions to address any potential measurement error. The author was very aware that in being immersed in the data from the three large case studies, errors and inconsistencies could be encountered and he needed to be aware of the conventional estimation strategies, explicitly or implicitly, whilst making convenient assumptions about the nature of the measurement error.

The way the questions were constructed was in the language of business and in order to assist respondent comprehension, information retrieval, judgement and reporting of subjective well-being. The question construction required consideration of the precise wording of a question as well as the reference period that respondents are asked to consider when forming their answers (e.g. current status versus 12-month forward aspiration).

5.10.7 Data Collection Procedures and Measures

5.10.7.1 Interview Methodology

Each of the three cases studies comprises of the results from 25 and 75 question surveys, focus groups, leadership team reviews, interviews and observations. Qualitative interviewing was used to identify respondents' opinion on the need for change within their respective organisations.

Three aspects were considered in the design of the quantitative interview questions: the organisation of the interview, the question formulation, and the degree of standardisation. Each interview took between 30 to 90 minutes. The key areas examined in structuring the interviews were:

- The interviews were highly structured and complementary questions were only added to get a greater depth of understanding of the question or answer.
- The respondents scored each question on a 1 to 5 scale and also had the opportunity to explain their answer or challenge the question to be framed in a different way.

5.10.7.2 Validity and Reliability

When carrying out a study it is important to know if the study investigates what was intended to be investigated, in other words the degree of validity. The action research methodology constructed was designed to make the process as transparent and repeatable as possible, within the boundaries and constraints of a case study.

5.10.7.3 Data protection and Ethics

Sign off for permission for each case study was sought and obtained for the 'Lead' participant within each organisation prior to the beginning of this stage of the research. These documents are not included due to data privacy but are available for examination on request.

All participants were fully briefed on the purpose of the research, and the forms which it would take. This included information on data protection, data anonymisation, result aggregation and eventually publication. This was in addition to the briefings detailed below.

5.10.9 General Notes issued in the Case Study

The general guidance notes used in the case studies are outlined in Figure 43: General guidance used in Case Studies

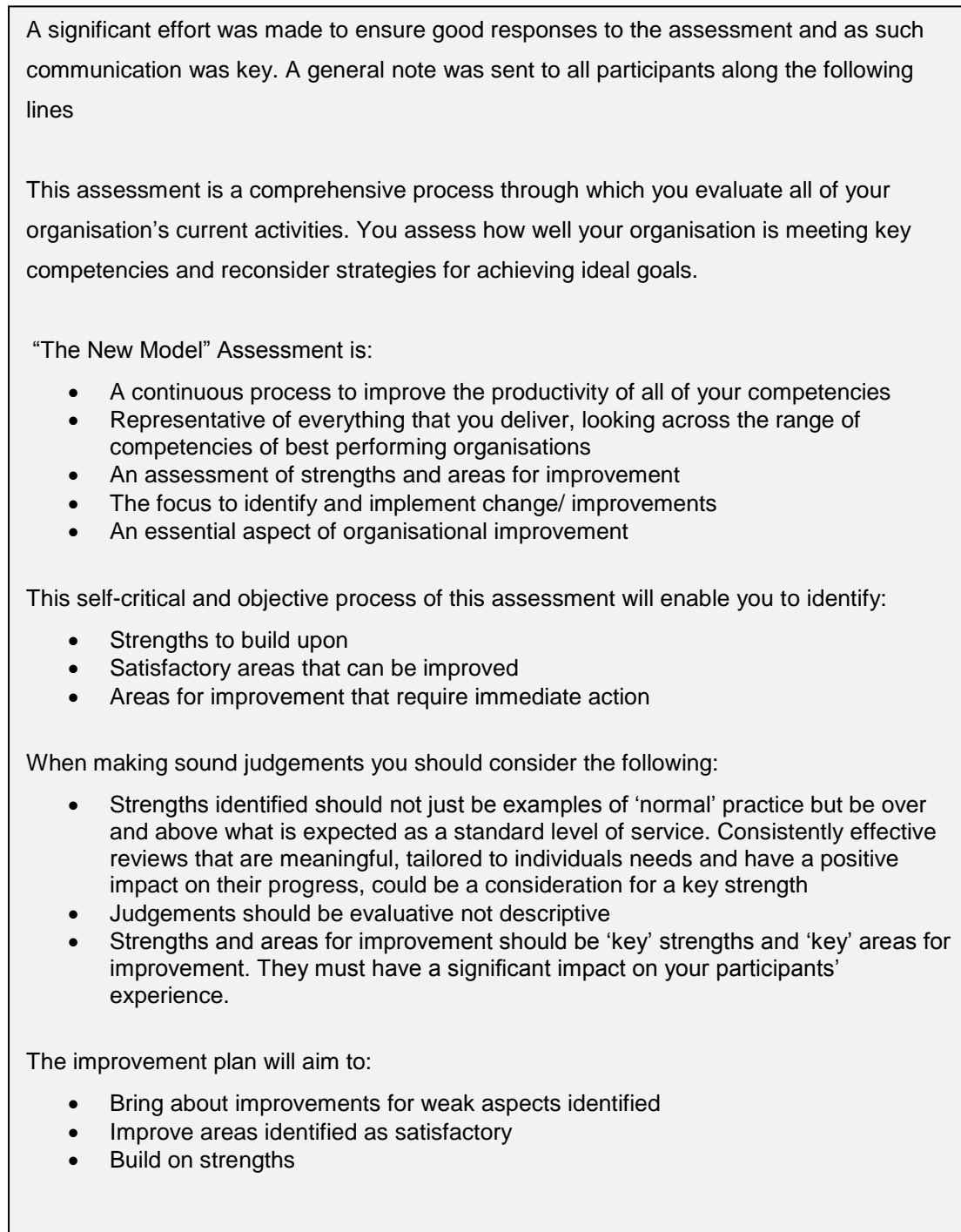


Figure 43: General guidance used in Case Studies (Author's own work)

5.10.10 Case Studies Overview

In designing the model for testing the outcome of research, a wide range of literature on the design and implementation of case study-based research was reviewed. It was

imperative that the completed case studies aligned to Bryman and Bell's guidelines on ethical considerations (Bryman and Bell, 2011)

At the outset, all participants were briefed and full consideration was given to ensure questions were appropriate, and respect for the dignity of research participants was prioritised. Full consent was obtained from the organisation and the participants prior to the study and all data protection rights were honoured. The confidentiality of the research data and the anonymity of individuals and organisations participating was ensured.

Case studies are particularly suited to the study of information in organisations. The case study relies on multiple sources of evidence and multiple data collection techniques. Yin (Yin, 2009) lists six major sources of evidence; documents, archival records, interviews, direct observation, participant observation and physical artefacts.

Looking up 'case study' in the Dictionary of Sociology at the beginning of this research, the following definition was found,

"The detailed examination of a single example of a class of phenomena, a case study cannot provide reliable information about the broader class, but it may be useful in the preliminary stages of an investigation since it provides hypotheses, which may be tested systematically with a larger number of cases"

(Abercrombie, 1984)

With regard to potential issues of bias, the author was very aware that the case studies should not be selected just to confirm existing, previously held theories, and must be comprehensive enough to robustly test any conclusions and identify gaps. The author was also very conscious that the completion of three case studies alone would not be a sufficient contribution to knowledge. Instead, the case studies would be used as a method of validating or challenging theories or conclusions. In this methodology, the case studies would be used to generate robust testing of the final part of the research project.

As a practitioner, the author was required to reflect on and question any preconceived conclusions. This involved the practitioner examining any outcomes or assumptions arrived at in past experience, and applying knowledge gained from the literature

review. The author intentionally selected case studies in a corporate function, a business function and in a public-sector organisation to provide different perspectives and ensure the sample was representative of the population as a whole. To further this, different geographies and cultures were included within the case studies, which again challenge norms of behaviour and thinking.

The structure of the case studies was designed to test the model developed after the completion of the literature review. This was achieved by using a series of survey questions, both online and face to face across different employee groups, interviews with selected individuals, focus groups of representative samples, and leadership discussions on the outcome of the analysis to identify areas of agreement, areas of contradiction, gaps in the feedback loops and inform further developments or amendments of the model.

5.10.11 Feedback on Case Studies

Relevance to Model

The three case studies led to a very positive review of the new model. Each organisation featured in the case study was at a very different point in the change process, but the feedback can be summarised as follows:

Case Study 1:

The participant's feedback regarding the survey was that they found it simple to use, and easy to understand. The model itself was adopted with no difficulty by any part of the organisation, and was found to be a novel way of measuring the organisation and its constituent parts.

Case Study 2:

This case study gave the author the opportunity to test the model on an organisation across multiple geographies, in real time. Feedback from the leadership team noted that the use of the model had provided significant insight into the organisation as a whole, with the added benefit of seeing the differences between the output for each geography. These comparisons between the organisations as it is now, versus the defined ideal final result, made the journey mapping much easier than anticipated,

especially when trying to capture what the organisation perceived to be critical dimensions.

Case Study 3:

“Our organisation is new, and therefore being able to get a good starting point was very important. This exercise provided us with a solid base from which to plan and execute our future work. We will continue to track our change using the model, adjusting our course as and when necessary.” Feedback from the CEO.

5.10.12 Reflective Learning

By formulating the methodology, the emphasis was placed on the need to not jump to assumptions, not assume that the answer is known already, despite previous knowledge and experience. It was of the utmost importance to follow a process of thought and reflection instead of relying on experiences.

6.0 Model Creation

6.1 Learning from Publications/Conferences and Change Programmes

During the course of this research between 2013 and 2018:

the author delivered over 30 major change programmes which involved opportunities to test, validate and apply new thinking. In the period 2013 to 2018 the author worked with over 3,000 senior managers in over 30 countries consulting, advising and implementing change. This work involved Rio Tinto where the author worked with the very senior board members, to organisations such as the NHS where the author in conjunction with Ernst & Young set up a new internal business and addressed the very significant change issues associated with 1,000+ people involved, to change programmes at GSK, P&G, HP, and numerous other organisations. Many of these programmes are still ongoing as the author continues to work on change with Rio Tinto, the NHS and others today.

The author has been guest speaker at over 20 major conferences where the topics of Change, Innovation, Transformation, Leadership and Mindset have been central topics of discussion. Many of these conferences were client related for the NHS, Rio Tinto etc, but also conferences run by the author's consultancy or by invitations from others.

The author has led a team teaching Change and Transformation at Sunderland University for 4 days every year to a group of EMBA and MBA type students.

The author has produced articles and books that are very client centric that have been sent to over 30,000 managers and business leaders providing them insights, trends and latest thinking on change and transformation

Whilst the research was central to the development of the New Model , this ongoing work provided a rich source of feedback and validation of thinking. Today the author is testing parts of the New Model in the NHS for example as part of his ongoing work.

6.2 Learnings from the Literature Review

In the literature review, two key aims were identified;

- To investigate the key characteristics and their inter-relationships that determine the nature, behaviour, and performance of business organisations.
- To propose a model of these characteristics and their inter-relationships which can be used to support change management and performance improvement in business organisations.

Following on from these, four sub-questions were identified:

- Is it possible to define a set of key characteristics and their inter-relationships which determine the nature, behaviour, and performance of business organisations?
- Can these be collated into a cohesive and dynamic framework which can be used by organisations to support them in change management and performance improvement?
- Through second tier application, can the framework continuously survey the whole change programme whilst expertly transforming the parts?
- Can such a framework be tested and validated in real business conditions?

The literature review determined that yes, there are key characteristics which define the nature, behaviour, and performance of organisations. These were identified as:

- Strategy and Vision
- Change and Innovation
- Resources and Leadership
- Output and Value
- Process and Systems

Once these characteristics had been established, the research from the literature review went further and compared the identified characteristics' hierarchies, and

cross-referenced them against business models, business metaphors and other characteristics as defined by the literature review and outlined in detail in Appendices 1-7.

Whilst the literature review pointed toward a range of powerful qualitative approaches for establishing the problem areas in change programmes and the influence factors in the field of organisational change for sustainability, it became apparent that alone, the key characteristics identified were not sufficient as the basis for a model. In fact, in isolation, these characteristics suffered from the same issues as existing business models - a lack of flexibility and an inability to provide a full 360-degree representation of an organisation.

In reviewing and reflecting on the plan to generate a new model, the author was faced with the prospect of making a number of critical decisions. It was recognised that a field testing methodology would need to be applied within the action research framework, to ensure that any further components of the model would be subject to the same levels of rigour, research and investigation as had been undertaken to settle on the existing key characteristics. To achieve this, the following steps were taken:

A group of 10 experts were assembled, encompassing a wealth of both academic and corporate experience. This included Professors from University of Sunderland and Duke University, senior executives from Rio Tinto and HP, as well as individuals from global coaching consultancies. This group provided feedback, insight, questioning and guidance on the development of the new model at all stages.

A constant feedback loop was established within the author's own day to day work in the market, where questions and assumptions about the new model in all stages of its development could be tested. This also included work undertaken in conferences attended by the author, as both a speaker and an attendee, which allowed the other to tap into the knowledge and experience of global experts and market leading executives.

The author was able to test concepts in over 100 workshops he led on aspects of leadership, change, innovation and transformation, attended by leaders globally. This allowed for significant dialogue and discussion on the working versions of the new model in all stages of development.

With this methodology in place, work was ready to be undertaken on the development of the new organisational change model. The key characteristics would form the base of this new model, but would not constitute the whole model – additional dimensions would be required. In order to determine exactly what these dimensions should be, the key characteristics were examined in detail, to fully understand their strengths, weaknesses and potential reach.

6.3 Key Characteristic Interrogation

The purpose of the interrogation of the key characteristics was to determine how well they were able to map and support change management within an organisation. As has been established, organisations are not a monolith, and function as a series of interconnected parts making up a whole. Therefore, each key characteristic cannot tell us the full story of an organisation, its current state and desired future state, but it can contribute part of the answer. For example, the key characteristics can indicate the following:

- Strategy and Vision – How clear and unified is the organisation on what it is trying to achieve and what it exists for?
- Change and Innovation – How well does the organisation understand the need for change and how well does it implement changes?
- Resources and Leadership – How well does the organisation translate its ‘wealth-bank’ of people into a return on investment?
- Output and Value – What value do the organisation’s outputs bring and how is this value perceived by stakeholders?
- Process and Systems – How well are operating protocols and infrastructure used to translate business intent into action?

The reasons that these characteristics were selected are detailed in the literature review, but their basis for inclusion within the new model is based upon more than their historical appearances in older models and their position within the hierarchy of characteristics – the author’s practitioner experience and 30 years of field work has also been applied.

6.3.1 Strategy and Vision - to set the future direction

Two critical characteristics identified in the academic research are Strategy and Vision as outlined in David, (David, 1989).

Most organisations state the intention of the business through the vision they set, and the strategy they develop to implement that vision. These vision statements state the future direction of the business and the strategy defines how they seek to deliver on that goal. Organisations invest significant resources and time in developing a vision or in other words, an ideal final result or future aspiration. In order to achieve these goals, there must be a strategy. From the author's practitioner experience, if there is no strategy, there will be a lack of clarity, road map, or sense of direction.

The selection of Strategy and Vision was made as a result of the research completed in the Literature Review and a review by the expert group, in the belief that it is essential that organisations have a strategy and vision that provides a clear and unified view of what the organisation is trying to achieve and what it exists for. Strategy and Vision are essential for guiding an organisation towards growth, and a key part of the construction of the new model (Lipton, 2002; Henry, 2011). The relationship between strategy, strategic goals and vision is marked on Figure 44: The relationship between strategy and vision

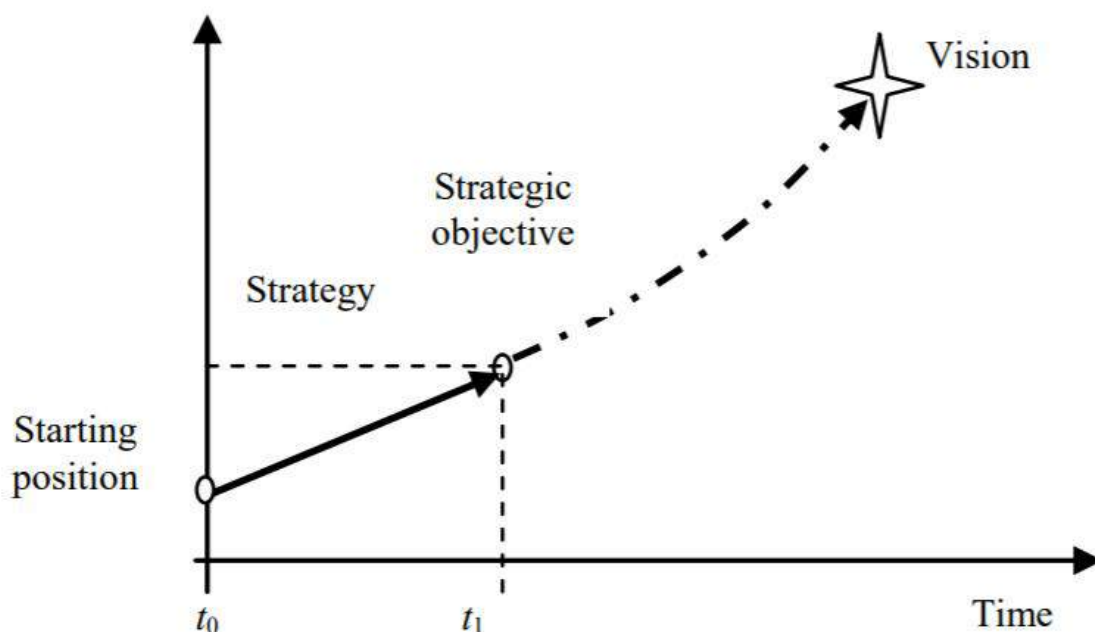


Figure 44: The relationship between Strategy and Vision (Author's own work)

Strategy and Vision refers to the extent to which the organisation has a clear, unified, agreed and appropriate sense of what the organisation exists for and hence what people at all levels of the organisation are trying to achieve. Strategy / vision is concerned with clarifying the 'desired future' of the organisation and mapping the route to enable consistent, aligned and sustainable achievement.

6.3.2 Change and Innovation, to adapt and reshape to meet the future

The future of any organisation is its ability to change, review and reshape to meet its future aspirations. Beckhard and Pritchard (Beckhard and Pritchard, 1992) state that it is the appropriate stance to engage in a fundamental change strategy for an organisation; that is, to challenge the ideas of control and stability while embracing the internal and external context of the organisation and the organisational work. In all of the research completed, an organisation's ability to change and be innovative was highlighted again and again.

Change and Innovation were selected from the Literature review, the practitioners experience and the review group of 10 experts and ongoing testing in the field work completed by the author. It is essential that change is not static and that an organisation understands the need for change and can track how well it implements change. During the last two to three decades organisations have become increasingly concerned about the role of innovation for economic performance. It can be argued that the successful management of change is crucial to any organisation in order to survive and succeed in the present highly competitive and continuously evolving business environment.

Change and Innovation refers to the organisation's capability for handling and responding to changes in its external and internal 'operating environment' and its ability to proactively initiate ideas for improved performance and changes to products / services to be more effective and successful. This is not just about 'responding' to what changes in the world, it is also about the organisation's ability to create new ideas, capture the potential of those ideas and implement them to change its 'environment'.

6.3.3 Resources and leadership, to deliver the organisation's future

Common sense tells us that organisations need leadership and resources such as, behaviours, skills, intelligence, experience, and technical knowledge as well as a

'wealth bank' of people needed to translate the 'strategy / vision' into the reality of a successful and sustainable enterprise. This includes the wealth of skills, knowledge, learning, competencies, qualities and human values that can be contributed at all levels to 'add value'. The author attended a number of conferences in 2015, primarily to learn from Gary Hamel where he talked about ground-breaking concepts such as “strategic intent”, “core competence”, “industry revolution”, and “management innovation”; these concepts have changed the language and practice of management in organisations around the globe. The role of Resources and Leadership was established in the author’s thinking as a key characteristic. This was well supported by the research in the Literature review and by the review group of 10. The key question was how well does the organisation translate its ‘wealth-bank’ of people into a return on investment? The literature review in this field revealed a number of interrelated constructs that have emerged over the last decades. The author examined several such concepts and constructs—innovation, creativity, knowledge management, learning constructs, proactive behaviours, job crafting, leadership, performance management, rewards and recognition, personal initiative, and extra-role behaviours, and these are subsets of the thinking applied. Resources / Leadership is about knowing where to access external resources and skill banks to meet particular scenarios.

6.3.4 Output and Value - the value of what the organisation does

Output and Value refers to the perceived value of the outputs of the business held by customers, clients, and people within the enterprise, external stakeholders and society as a whole. This will include the way customers, clients, external stakeholders and society view products, services and the organisation itself. Output and Value was selected as a result of priority attributed to it in the academic research and the practitioners experience with TRIZ, on the basis that in business and industry, everyone has customers – internal customers, external customers and/or both. When determining what needs to be accomplished to satisfy or delight the customer it is vital that there is a clear understanding of the value the organisation’s outputs produce and how this value is perceived by stakeholders? This was debated by the group of 10 as to whether this was solely an Energy characteristic and finally agreed to be included in the base characteristics because what we do, and what value that activity produces, is vital in the operation of any business. The question of output and value was raised

by the author in many field work trials within organisations he worked with and its importance was emphasised and therefore it was included.

6.3.5 Process and Systems — the way the organisation works

Leading organisations have understood and built into their processes a level of flexibility that allows shifts in operation to occur seamlessly as and when external circumstances dictate that change is required. In the Literature review, process and systems were regularly reviewed as a characteristic. It was established that organisations recognise Process and System as referring to the operating protocols and infrastructure through which the business intent is translated into reproducible action. Leaders need to be supported by good systems and processes in the practitioner's experience. These systems and processes work in organisations to send messages, share information, create structure, align activities and make well-informed decisions across the business and to provide a framework for how things should actually get done.

Organisational processes and systems are an extension of leadership, creating consistency and trust. In selecting Process and Systems as a base characteristic the question arises of how well do the organisations protocols and infrastructure translate business intent into action? The selection of process and system was supported by the thinking of participants in many conferences on Lean and the experiences the author had in owning and running a Lean consultancy. The selection was supported in discussion with the group of 10.

6.3.6 Conclusions

These key characteristics identified from the Literature research, the ongoing field work of the author and constant reviews formed the basis of the new model. However, these characteristics do not themselves exist in a vacuum – they need to be measured, both to provide an indication of where an organisation is, but also of the gap between where the organisation is and where it needs to be – that is a representation of the area in which organisational change can, and will, take effect.

In reflecting on the conclusion drawn which created the key characteristics selected, the author spent considerable time in understanding how these characteristics could

be measured or assessed. That consideration resulted in thinking around the energy of the characteristics, output of the characteristics, productivity of the characteristics, engagement of the characteristics, emotional structuring of the characteristics and grouping of the characteristics. Further consideration was given to the development or diminishment of the characteristics over time.

6.4 Measuring the Key Characteristics

In order to determine the most effective way to measure the identified key characteristics, the literature and research was again re-examined by the author. During the original research into characteristics, the author had identified and isolated a group of characteristics, which he collectively termed 'energy attributes'. This group of characteristics were used to measure the value driven output of an organisation, and the external factors that can and do influence it.

Adding these energy attributes as a measurement scale for the key characteristics would not complete the model – after all, these attributes measure the value an organisation adds from an external perspective, which would not give a full 360-degree view of the organisation. However, it would bring the model closer to this goal. By adding these energy attributes to the model, the organisation could be modelled from the perspective of the key characteristics and the organisation itself – only an internal or structural measure would be missing.

Using the same process as previously described for the key characteristics, the energy attributes were validated, cross referenced and hierarchies established. The work completed in Table 2 as re-examined together with the work described in Appendices 1-5. The characteristics that were described within the literature review typically as “energy characteristics”, “productivity measures”, “outcome measures” and “value measures” were re-examined to identify key energy-based characteristics. The business models were reviewed and tested by the author and after sample testing in the field work a grouping of 15 were reduced to 5 and this resulted in the following characteristics being selected:

- Agility

- Output
- Capability
- Disruption
- Energy

These measurement characteristics are defined as below:

6.4.1 Agility – How long does it take for the organisation to respond to opportunities and threats intelligently?

According to (Adler, Goldoftas and Levine, 1999; Grewal and Tansuhaj, 2001; Sarker and Sarker, 2009; Tallon and Pinsonneault, 2011) the description of Agility is the ability of an organisation to renew itself, adapt, change quickly, and succeed in a rapidly changing, volatile, uncertain, ambiguous, turbulent environment. An agile organisation can purposefully alter the image, size and rate of change without falling victim to critical disruption chaos or inertia

Agility and stability are critical to understanding that agility provides the springboard to change. They are essentially often considered two different things. However, agility is not incompatible with stability and is quite the contrary. *Agility requires* stability for most companies. Organisational agility is a combination of adaptability, flexibility, nimbleness, and speed. These are now seen as a source of competitive advantage in today's fiercely competitive and fast changing markets. Agility needs three things to be truly efficient. One is a dynamic capability to move at speed, to be nimble, responsive to altering circumstances or situations. Two it needs to be an energy source within the business which allows the business to react quickly to opportunities or threats. Three is that agility also requires stability, a stable foundation and a platform. It's this stable platform that becomes a springboard for the company, an anchor point that doesn't change while other things are changing constantly.

6.4.2 Output – What is the perceived value the organisation delivers to customers?

Organisational performance comprises the actual output that can be measured in the market or customers' world. Output is the information produced by a system or process. For example, within systems theory, the inputs are what are put into a system

and the outputs are the results obtained after running an entire process or just a small part of a process. Outputs can be the results of an individual unit of a larger process and can be measured by the volume and quality. Output includes the visual, auditory, expectation, experience or tactile perceptions provided by the process systems or person after processing the performance of the provided information/data to the standards set.

The output value of an organisation is a consequence of its actions or activities. Most often this only measures tangible output. Other outcomes are also critical, such as changes in cohesiveness, its ability to learn, the health of the culture, the degree to which the organisation-built capacity to be prepared for future tasks, the uniqueness of the solution offered, the experiences offered and whether it increases in efficiency through practice

There is a high degree of integration between the factors intervening in the process of value creation (Grant, Shani and Krishnan, 1994). However, output and value can relate to a number of other factors such as the achievement of the strategic vision, the innovation and creativity applied, the output of its resources and leadership, the processes and systems used. An interesting way of looking at this is the work of (Mele, Pels and Polese, 2010) who say that business value creation through output has two measures: one is related both to the sub-system (through quality management, R&D activities, internal auditing, feedback daily research, etc.); two is related to the supra-system (through cooperation logics and asset improvement in terms of technical, cognitive, relational and adaptive aspects).

6.4.3 Capability - How does the organisation use skills and knowledge to manage day-to-day tasks and implement change?

The original definition of dynamic capabilities referred to “the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece, Pisano and Shuen, 1997).

Capability is the ability and energy brought to perform a particular task or activity. A dynamic capability is the capacity and energy of an organisation to purposefully create, extend, or modify its resource base. As an energy characteristic, capability needed to

be dynamic; dynamic across a range of activities. The capabilities considered are leadership group, the resources supporting that group, the innovation and creativity applied, the output and value, the systems and processes used and the climate and culture within which it operated; the capability of the organisation to change, adapt, be innovative and achieve the goals set. Capabilities was a very significant topic for research as dynamic capabilities extend way beyond the characteristics identified. In the re-examination of the literature and in the field, work completed, dynamic capability was considered as how the organisation could integrate, build, and reconfigure internal and external competencies to address rapidly changing environments to achieve its goals for the external market.

6.4.4 Disruption – How well does the organisation detect when disruptions to the external environment necessitate change?

As a professional Corporate employee in the 1990s the Autor read a huge amount of Clayton M. Christensen's work. He was a professor at Harvard Business School who today is considered one of the world's leading experts on innovation and growth. In his 1997 book, *The Innovator's Dilemma* (Christensen, 1997), he stated that good leaders face a dilemma. His main argument was that good leaders, by doing the very things they needed to do to succeed — listen to customers, invest in the business, and build distinctive capabilities — ran the risk of ignoring rivals with “disruptive” innovations. Their ability to be disruptive and/or absorb disruption could be comprised. The author has always been interested in disruption. The author's business is totally based on this concept. The author has often found that organisations are not able to effectively make decisions when faced with times of disruption. He agrees with the economist Joseph Schumpeter. The turmoil of business competition has often been likened to a stormy sea. “Gales of creative destruction,” economist Joseph Schumpeter wrote, “periodically sweep through industries, sinking weak and outdated companies”. Every organisational change is influenced by external and internal conditions (Ginsberg, 1988). Again, the author has found that some silos will be able to make effective decisions during times of disruption but this is not the norm across the organisation. However, disruption is a two-way street. Organisations must have the energy to absorb disruption whilst at the same time being disruptive. Dynamic and intensified changes in the global organisation ecosystem result in significant disruptions, therefore organisations must have the energy to absorb that disruption.

Further we know that in organisational change, dynamic external market pressures intensify changes in the organisational ecosystem and result in significant disruptions. Due to these pressures organisations must develop strategies and mechanisms for reducing their exposure to such disruptions as well as creating a capability and energy to be disruptive internally and in the external marketplace. Organisations must have the ability to change their strategies in a proactive manner.

6.4.5 Conclusions

With the addition of the energy characteristics, the initial model design had now taken a two-dimensional format, with the key characteristics acting as the bases, or traditional x-axis of a 2D graph and the energy characteristics acting as a measurement scale on the y-axis. To imbue the new model with the flexibility and precise targeting required however, a third dimension was still needed to bring the model to life, and represent the organisation both as a whole, but also as the constituent parts which, in situations where alignment has failed or these have not been independently considered, can lead to the failure of lasting organisational change efforts.

6.5 Representing Organisations

When revisiting the outputs of the literature review, with the focus on incorporating an internal view of the organisation in the new model, the role of metaphors within an organisation returned to the forefront.

Metaphors, as described in the literature review, are a key part of our language (Cornelissen, 2002, 2004, 2005; Oswick et al., 2002; Tsoukas, 1991), and they are principally a way of conceiving one thing in terms of another (Lawler, Lakoff and Johnson, 1983; Lakoff and Turner, 1989). They are used to enable and enhance our understandings by referring to “something unfamiliar in terms of something familiar” (Inns, 2002).

Four drawbacks or ‘traps’ applicable to the use of metaphors were identified;

- Metaphors can be used inappropriately, insufficiently or inaccurately to describe a situation and lack familiarity with the people within the organisation.

The metaphor can also determine the way people perceive, remember, and analyse information they receive.

- The metaphors can carry ambiguous meanings leading to confusion and lack of consistency. However, any single metaphor limits people's perception by blocking and distorting the information encountered. Much of the conflict in the organisation is caused by people holding different metaphors, oblivious to the fact that they behave in accordance with their metaphor.
- The danger of assuming people will buy into and understand new metaphors. (Akin and Palmer, 2006, *Managing Organisational Change*) point out that the strength of the conveyor of the message often determines how people react to a metaphor, its legitimacy or otherwise.
- The use of limited metaphors to describe an entire organisation, thus leading to a shutting out of alternative views of certain problems. However, Akin and Palmer conclude that: “effective managers are able to utilise multiple metaphors to comprehend and manage organisational situations”.

“At some point, playing with a metaphor reveals where it breaks down because metaphors are partial. Penicillin can cure a fever, but there may be no such wonder drug for organisational woes, precisely because organisations are not organisms literally. There are no reliable chemical interactions that occur in response to an intervention because people in complex relationships inhabit organisations. They do not respond as predictably as chemical systems. However, even where a metaphor breaks down, there are lessons to learn. Precisely the fact that there is no organisational analogy to the wonder drug can make people think more critically about easy remedies that are offered for organisational problems.”

(Ancona, 1996)

Despite these traps, metaphors are important because they allow a fascinating and to some extent unconventional, original way to approach organisational modelling. In general, metaphors are used to provide emphasis or originality to a concept or a particular aspect of an idea that anyone wants to express. The scope of using metaphors can however be more comprehensive; metaphors can be in fact seen as a

process by which people explain and try to understand a phenomenon on the basis of their precedent experience related to a different phenomenon, or in Morgan's words

"...to understand one element of experience in terms of another"

(Morgan, 1998)

One of the most typical benefits of using metaphors is helping their users to approach complex issues and explain these in a simpler way, ultimately providing meaning to phenomena whose interpretation is not so immediately obvious (Morgan, 1998). This process shows to be particularly effectual because metaphors usually attract individual attention to their most important elements and characteristics. Metaphors also show to be particularly useful to put order and clarity in those circumstances dominated by vagueness,

"...the more ambiguous a situation is, the more important metaphors become for ordering the situation and making sense of our organisational experience"

(Greenberg and Boland, 1988)

6.6 Metaphors and Model Structure

Five key features were considered when constructing the new model, the first being simplicity, so that the model is not complex and is intuitively easy to use. The second feature was objectivity, where the assessment of maturity is objective and based on a structured process. Third was flexibility, allowing for the model to be adapted to different companies. The fourth feature was adaptability (to a questionnaire) where the model is adaptable to a questionnaire in order to use the proposed evaluation method in a way that can be easy to disseminate. The fifth and final feature was capability, where the evaluation of processes is enabled by the model to make an assessment of the service processes of the company and act as basis for change management activity, guiding the evolution of the different "steps" of maturity. This links back to the fourth potential metaphor 'trap' – the use of a single metaphor to define an entire organisation. Organisations do not have one service process – they're made up of many, all with different structures, functions and outputs. If metaphors are going to be used with the new model, it's clear that a range of metaphors need to be available,

and also applicable – a one size fits all approach will not work, and it is part of what has hampered the functionality of previous models.

As has been established, all diagnostic modelling tools and business models are a representation of an organisational structure, from which one can base the analysis of an organisation.

Structure is placed at the top end of both of the characteristics hierarchy tables in the completed research analysis. The characteristic of structure has many characteristics grouped beneath it and is a vital component to any behavioural analysis. A key principle of system thinking is that system behaviour is determined primarily by its internal structure, not by external influences (Senge, 1999) and therefore structure should form a key part of our model. Organisational theory seeks to address the fundamentals of organisational structures of businesses in general. Many theories define organisational structures as the configuration of relations among task allocation, responsibility and power. The prescription, complexity and concentration of authority are determined by characteristics of the organisational structures which exert important influences on the efficiency of organisations as well. Organisational structures consist of not only such concrete parts as individuals, groups, teams and departments but also abstract parts such as the correlations among organisational elements.

The structure of an organisation provides a view of the interactions between the elements of the system which are responsible for producing the patterns of behaviour. The systems approach believes that to ensure the structure of an organisation is designed effectively, it must be established if it can deliver the desired patterns of behaviour. Then, through these patterns of behaviour, the structure can be modelled and used to project future simulations.

The Structure-Organisational-Process model described by Glassop (Glassop, 2007) opens up a way of looking at anything by considering the following:

- What the thing is composed of (the *structures* that distinguish it)
- How the thing is composed (the *organisation* of the parts)

- That a whole thing is an organised structure (the *process* of comprising the parts)

By placing the characteristic structure in a field of its own it becomes necessary to return to the beginning of the research where metaphors were used to describe an organisation. . These metaphors help us to understand the different types of structures to which organisations pertain.

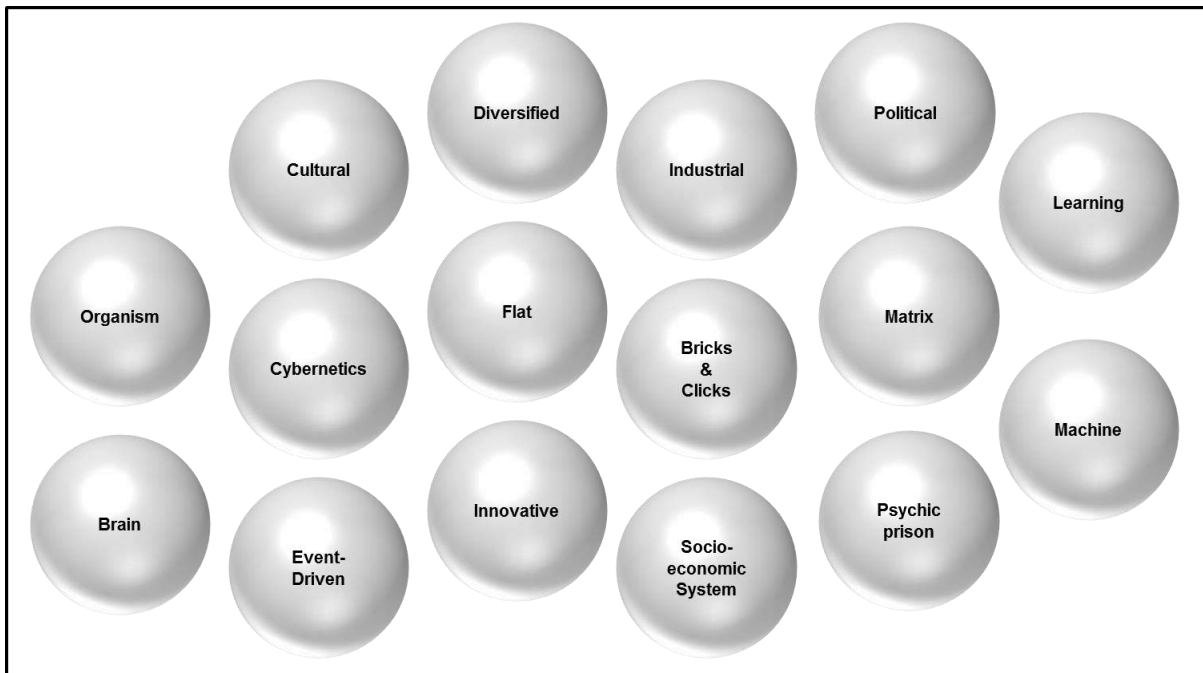


Figure 45: 16 Typical Organisational Metaphors (Author's own work)

In the author's research, a total of 10 structural metaphors were identified:

- Fixed (Process)
- Fragmented (Divisional)
- Strategic
- Managed
- Transformational
- Networked
- Integrated
- Bureaucracy

- Optimising
- Machine

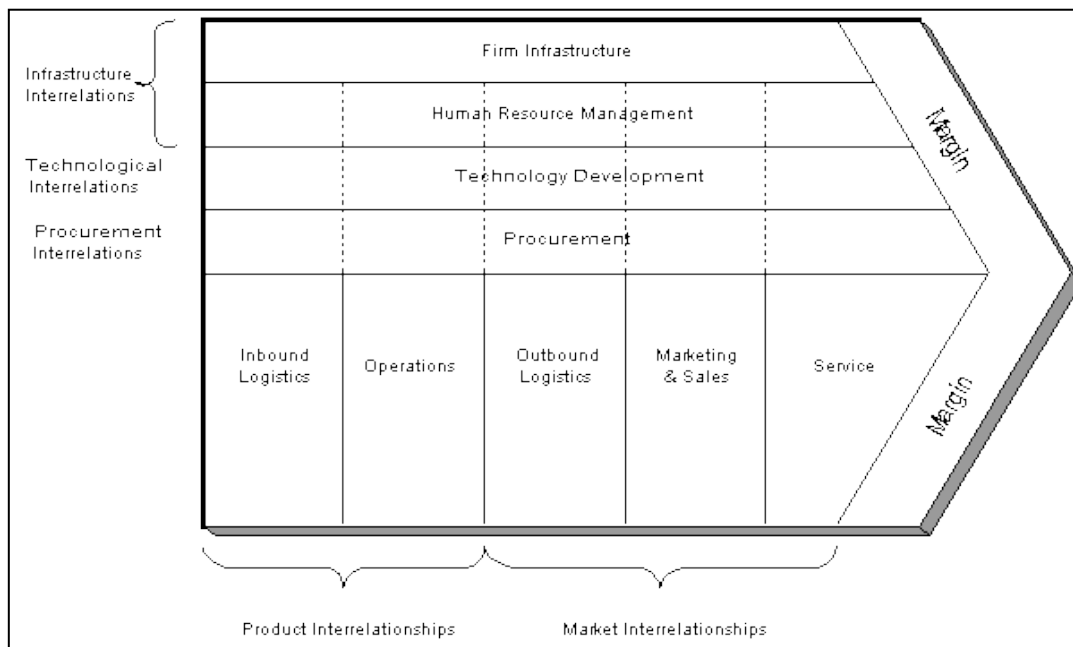
6.6.1 Fixed (Process)

An organisation that has a fixed structure is described as such due to the linearity and lack of feedback. Processes within the organisation are chronological and mechanical. This type of structure was mainly used pre-computing capability, where data and outputs were not fed back into the system, leading to a lack of learning and creation of intelligence. This structure is usually deemed to be financially driven.

An example of a fixed structure is seen in the Value Chain analysis by Michael Porter in his book 'Competitive Advantage' (Porter, 1985).

“The idea of the value chain is based on the process view of organisations, the idea of seeing a manufacturing (or service) organisation as a system, made up of subsystems each with inputs, transformation processes and outputs. Inputs, transformation processes, and outputs involve the acquisition and consumption of resources - money, labour, materials, equipment, buildings, land, administration and management. How value chain activities are carried out determines costs and affects profits.”

(Porter, 1985)



Porter's Value Chain in diagrammatic form (Porter, 1985)

Figure 46: Porter's Value Chain

6.6.2 Fragmented (Divisional)

Phil Ensor in *The Functional Silo Syndrome* (Ensor, 1988) states that:

- Organisational structure is deeply layered on both the horizontal and vertical planes.
- Management style (leadership) is top down and authoritarian. Obtaining and exercising control is a prime managerial motivation.
- Subordinate jobs are designed to be narrow, repetitive, easy to control – and boring. People are regarded as interchangeable parts.
- Management- Employee relationships are contractual, legalistic, distant, non-trusting and often adversarial.
- Performance expectations are imposed by top management, questioned by middle management, resented (or considered silly) by workers and contested by unions.

Due to this structure, the organisation is incapable of providing a consistent level of customer service or providing a consistent quality of product, and is instead consumed with day to day operations, leading to outputs that are inconsistent and unpredictable. Within this structure, innovation is perceived to be excessively wasteful and distracting, and with interdepartmental competition and turf wars between rival managers, this can lead to the emergence of silos and resultant communication gaps. In addition, management silos almost always result in fragmented and duplicated budgets and projects, thus wasting valuable company investments.

Fragmented is therefore characterised by inconsistency and uncertainty. The organisation is managed on a segmented basis with individual targets and lack of alignment across the various functions and levels. The leadership team is disjointed and fails to provide a framework for performance and collaboration, and destructive conflict within the leadership group is likely. Often, the driving management force will appear to the outsider to have a 'not on my watch' aim. The leadership style is likely to be highly transactional; leaders will tend to interact with staff on a purely contractual

basis, assuming people can only be expected to meet minimum performance requirements. The commitment of people within the organisation is likely to be purely continuance; doing the minimum required to avoid trouble. It is unlikely that leaders are respected, and good people will want to leave so the organisation suffers a continuous haemorrhage of talent. The fragmented and uncertain conditions of the organisation create high levels of stress as people are constantly battling against problems to perform their jobs. As a consequence, there is a tangible climate of frustration, defensiveness and tiredness. Internal systems and processes tend to be inefficient and reactive and the quality levels of products and services are variable.

In the fragmented organisation, key systems and processes may depend entirely on the tacit knowledge of individuals, which creates a huge risk of catastrophic failure if they leave. More broadly, the organisation does not manage its knowledge in any managed or organised way, so critical knowledge for adding value to the product or processes is easily lost or cannot be developed due to lack of transparency. Overall, the organisation is unresponsive to changes in the internal and external marketplace and tends to default to knee jerk reactions, as opposed to planning a structured or coordinated approach to change. There is no formal innovation process capability and any innovation successes, therefore, are more likely the result of luck than judgement. What innovation occurs is likely to be due to isolated individuals within the 'system' who may (or may not) persevere in the face of institutionalised barriers which handicap any new thinking.

6.6.3 Strategic

Strategic organisations are integrated and aligned around a critical consistency differentiation. The organisation understands how to deliver high value external relationships, integrating with external suppliers, and understands the importance of developing internal development throughout the organisation. Business methods used typically include SWOT, Gap and 5 Forces analysis. As noted by Chandler (Chandler, 1962), in a strategic organisation, the strategy drives the structure while the structure drives the strategy, much like a Möbius loop. The layering of management and the span of control become crucial and delegating the day-to-day details of entire management functions becomes inevitable.

At a 'strategic' level, the organisation is adaptive and agile, and there is a clear vision and strategy, delivered through high profile and engaging leadership. There is a desire to achieve and exceed throughout the business and all team members are committed to delivering excellence and continuously enhance capability – it's clear that being 'good enough' will not be sufficient. In this organisation, people want to be 'the best possible'. Innovation is highly visible on the senior management radar and the organisation's systems and processes look beyond the present and are capable of delivering the future success of the business. All levels of the organisation are actively encouraged to question the 'why' and 'how'. Products and services are best in class and the benchmark aspiration for competitors inside and outside the sector. The organisation is able to take leaps outside its traditional doors and to examine the future position of the business in a wider context. There will be very high levels of commitment to the organisation from all who work within it, and this commitment will be exhibited by low turnover rates, high loyalty and high levels of effort.

6.6.4 Managed

Managed within the structure characteristic means that each part of the structure is subjected to tight, managed control. The managed organisation is able to manage external resources to achieve organisational benefits and has a coherent approach to internal organisational development. The organisation has centrally managed standardisation of processes and procedures.

The 'managed' organisation is characterised by its stability and maintenance. Vision and strategy are defined and communicated throughout the business, but strategy development and implementation will tend to be 'top down' with limited input from employees. Leadership will tend to be transactional, similar to a fragmented organisation, but focused on securing compliance with plans and the organisational norms. As it is transactional, leaders will tend to be satisfied with 'good enough' effort or performance to avoid trouble. The dominant transactional leadership style will strive to avoid disruption, upheaval or change, and will prefer the high degree of certainty of the existing status quo. For all, the primary commitment is likely to be of the continuance or norm; they will perform because it is expected or because they perceive there are dangers in not being seen to be committed. Goal deployment processes and development plans are in place and reviewed annually with on-the-job delivery being a key performance measure. There are clear systems and processes

in place with a strong focus on bureaucracy to monitor and evaluate consistency of service. There is a recognition that failure in product and service development need not be bad, and comfort in the capability of processes to manage the risk. The business is concerned with maintaining and developing its position in existing markets, and when innovation goals are set, there is a strong chance that the business will be capable of reliably delivering what it says it will deliver.

6.6.5 Transformational

Transformational within structure characteristic means that each micro part of the organisation is in a process of constant transformation within a macro transformation process that is clearly understood and energised. A transformational organisation has a clear, compelling vision and strategy, which, coupled with purposeful direction, ensures alignment across all elements of the organisation and embeds excellence as the norm. The dominant leadership style will be transformational at all levels - at this level of functioning all leaders will be capable of inspiring excellent performance which surpasses expectations through their ability to excite, motivate and communicate. Leaders will be highly skilled in managing teams and developing individuals. They will be living, visible role models of what the organisation wants to be, and who win respect and trust for their integrity and competence.

The organisation is also characterised by a high degree of self-managed employees, who leaders encourage rather than manage and who feel empowered to exercise discretion and understand the limits to which they can do so. The organisation operates in a 'systems' way. All processes, systems, resources, policies, protocols and plans integrate and fit together well and all are consistent with the vision and strategy of the organisation. Knowledge and skills are world class and the desire to develop is pervasive. The organisation manages its knowledge to achieve competitive success. This means that the organisation has systems and processes in place to capture important knowledge, store it, disseminate it and use it to maximum advantage so that the learning of individuals and teams becomes learning and knowledge available to all within the enterprise. The business thrives on ambiguity and constantly drives for outstanding contributions from every person. Excellence is designed into all processes and systems and products and services are consistently seen as world class. The organisation is able to proactively venture outside its core skill areas and into other areas. The organisation knows the times when innovation is important, and

the other times when competition slows and stability becomes the order of the day, and designs and regulates itself accordingly.

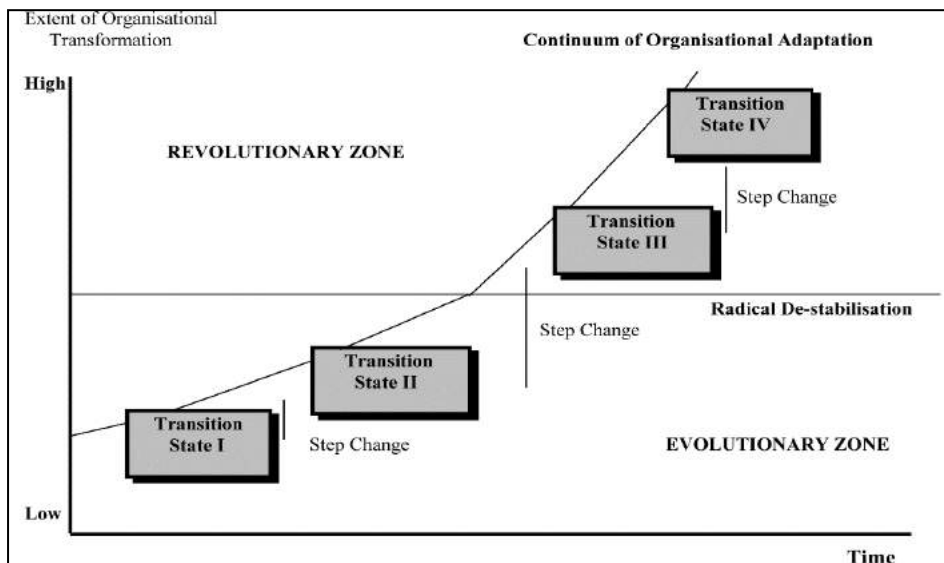


Figure 47: A Descriptive and Analytical Model of Organisational Transformation (Author's own work)

6.6.6 Networked

Within structure, networked means that the business is a loose confederation of entities within a framework that allows independence of strategy and action but is held together within a large entity. It can also refer to a group of legally independent companies or subsidiary business units that use various methods of coordinating and controlling their interaction in order to appear like a larger entity.

In a business context, three main types of network organisation are typically observed:

- Internal - where a large company has separate units acting as profit centres.
- Stable - where a central company outsources some work to others.
- Dynamic - where a network integrator outsources heavily to other companies.

“Where independent people and groups act as independent nodes, link across boundaries, to work together for a common purpose; it has multiple leaders, lots of voluntary links and interacting levels”

(Lipnack and Stamps, 2000)

As Watts describes;

“The rapid adoption of social media and mobile computing is transforming how businesses in every industry relate to their customers. From marketing, to brand management, to customer loyalty programs, business is adapting to the digital behaviours of customers and learning a new paradigm: the "customer network.”

But customer networks are not only found outside the organisation in the social behaviour of shoppers, voters, fans and volunteers. Customer networks can also be found inside every business, shaping how employees share, communicate and collaborate at the workplace.”

(Watts, 2004)

The three main features of networked organisations are that they are:

- Borderless – ‘porous’ boundaries separating their own departments from their partners, customers and other external stakeholders
- Collaborative – organisations actively seek out ideas from customers and partners, exchange information with them and involve them in innovation and value creation
- Pervasively-networked - All divisions and functions of the organisation are engaging with customer networks, and digital technologies are used to connect across disciplines and departments within the organisation as well.

The notion of a network implies nodes and links. The nodes can be people, teams or even organisations - networks operate at many levels. Common examples are distributed geographic teams in large organisations, or small organisations operating as networks to compete against large corporations. The links are the various coordination and "agreement" mechanisms. In a network, high degrees of informal communications (both face-to-face and over electronic networks) achieve success where formal authority and communications in hierarchical organisations often fail. Two-way links and reciprocity across the links are what makes networks work.

6.6.7 Integrated

Integration within structure refers to a large group of organisations with independent strategies and actions, but which have a united and integrated framework that is controlled at the customer facing market in an integrated and unified manner. Integration is defined as the extent to which distinct and interdependent organisational components constitute a unified whole. Thus, integration is seen as reflecting how harmoniously the different departments of an organisation work together and how tightly co-ordinated their activities are. Consistent with this view, strategy literature has used the concept of integration to describe the co-ordination of activities or the management of the dependencies between them. Six types of OI (Organisational Integration) have been identified to codify this co-ordination: two intra-organisational OI (internal-operational, internal-functional) and four inter-organisational OI (external-operational-forward, external-operational-backward, external-operational-lateral, and external-functional).

The interdependence of different organisational parts is an important structural characteristic of firms. While the notion of interdependence has been characterised in a variety of ways by different researchers, three types of organisational interdependence identified by Thompson (Thompson, 1967), appear to be relevant to organisational integration - pooled, sequential and reciprocal.

In pooled integration each part of the organisation makes a discrete contribution to the whole and is supported by the whole organisation. However, each part does not necessarily depend on, or support every other part directly. In sequential interdependence, a serial relationship exists between different parts. The output of one part becomes the input of another part. There is a direct interdependence between the two parts of the organisation and the order of the dependence can be determined.

6.6.8 Bureaucracy

Bureaucracy within the characteristic of structure relates to a very hierarchal organisation that is formalised in a very regimented manner. Bureaucracies are characterised by factors such as,

“...a rule-bound, formalistic culture; a production-line technology and its standardisation, routinisation, and efficiency-driven staff of technocrats; or a stable environment that rewards efficiency rather than innovation”

(Barki and Pinsonneault, 2005)

Bureaucracy is described as a system of administration conducted by trained professionals according to fixed rules, and the elimination of unnecessary bureaucracy is a key concept in managerial theory. According to Weber (Weber, 1947), bureaucracies are organised according to rational principles. Offices are ranked in a hierarchical order and their operations are characterised by impersonal rules. Incumbents are governed by methodical allocation of areas of jurisdiction and delimited spheres of duty. Appointments are made according to specialised qualifications rather than ascriptive criteria.

Weber argued that the bureaucratisation of the modern world has led to its depersonalisation, and organisations have followed the same path,

“The calculability of decision-making and with it its appropriateness for capitalism is the more fully realised the more bureaucracy "depersonalises" itself, i.e., the more completely it succeeds in achieving the exclusion of love, hatred, and every purely personal, especially irrational and incalculable, feeling from the execution of official tasks. In the place of the old-type ruler who is moved by sympathy, favour, grace, and gratitude, modern culture requires for its sustaining external apparatus the emotionally detached, and hence rigorously "professional" expert”

(Weber, 1947)

6.6.9 Optimising

An optimising organisation within the structural characteristic is an organisation that seeks continual improvement and is more opportunistic than strategic. At the optimising level, the entire organisation is focused on continual improvement - individuals seek out opportunities for improvement on a daily basis. These improvements are made to the capability of individuals and workgroups, to the performance of competency-based processes, and to workforce practices and activities. In optimising, leaders treat change management as an ordinary business process to be performed in an orderly way on a regular basis. Simultaneously, the

organisation continually seeks methods for improving the capability of its competency-based processes. Innovative, proactive and opportunistic improvement actions are developed in order to seek innovations that can bridge the gap between the current capacity of the organisation and the capacity needed to achieve business goals. Predictability obtained at the managed level may still not achieve the desired results of business processes, so at the optimised level, proactive activities are triggered to allow raising the capacities of different processes in order to achieve the capacity that will accomplish the desired objectives. Continuous improvement is institutionalised and change management becomes a habitual and encouraged process.

6.6.10 Machine

Machine within structure relates to organisations which use internal control processes on individual projects and archives them. It tries to develop standardisation and integration across projects. The machine approach is becoming proactive, with organisation analyses, measures and controls processes across departmental units. Businesses that reach this level have overcome the inefficiencies of dispersed siloed or fragmented processes and structures to gain a competitive advantage. They seek to increase their decision-making capability by making deep insights and correlations across the enterprise. Companies at this level focus on combining and standardising the information produced by systems processes structures across the enterprise to understand operations in real time. The organisation shifts its focus from operating within independent silos to open a more consolidated analysis. Information from dedicated systems is viewed in a very organised manner. The business establishes formal processes and decisions are made in a highly regulated manner to provide information to the central repository. Some corporate metrics for understanding performance are used to make strategic business decisions.

6.7 The Non-Hierarchical Nature of Structure

It is important to note that the structures that have been detailed in the above sections are not rated or ranked against each other. That is to say, that no one structure is 'better' than another. The 'best' structure is that which is most appropriate to a specific organisation, or part of the organisation.

6.8 Levels of structure

The role of metaphors in the new model has two outcomes. One, of measurement – after all, for each characteristic: if you can't measure it, you can't understand it; if you can't understand it, you can't control it; if you can't control it, you can't improve it. Without measurement, there is no way to map your journey and see your progress. Two, in the practitioner experience organisations want to understand where they are on the change journey. The aspiration of many is to be a transformation organisation and too often leaders seize upon a label as a vision of how they would like things to be. The challenge in this thinking is that most organisations are a collection of “things”. Some parts are more mature than others, some are more strategic and some are better managed. Being fixated on one label can be both healthy and unhealthy. Healthy in the sense that leaders have a focus to pull the organisation forward and this can be a galvanising force for change if managed well. However, the unhealthy aspect is that not all parts of the organisation start from the same point of performance or commitment, and this can result in unbalancing any change programme or worse stopping any change programme. However, the thinking of the author suggested that metaphors can be very useful if allowed to deal with the reality. The use of metaphors as measures would allow the power of a new paradigm, or as described in Spiral Dynamic "second tier" thinking that is the ability to constantly survey the whole while tinkering expertly with the parts. In this instant it would allow the organisation to seek out its desired result for example “transformation” or “strategic” and therefore then being able to monitor the full change programme.

Looking at the non-hierarchy of organisational structure and taking into account both the author's practitioners knowledge and field work, experience and the Literature review, the author decided to test the organisational structures reviewed and to establish the most appropriate. In the experience of the practitioner and reflecting on the research done, the author asked a group of subject matter experts to select the most appropriate levels. These experts were from universities, heads of organisational change in large Corporates and Public Services, or Organisational coaches.

The selected group of 10 assessed the structured metaphors and listed

- Transformational
- Strategic

- Managed
- Siloed
- Fragmented

The working definitions for each of these structural characteristics were as follows:

- Fragmented - Although there may be pockets of excellence, this isn't spread or communicated across the organisation.
- Siloed – Teams work independently of each other; best practice is not shared.
- Managed – Well defined structures and performance management but reluctant to change and denial about the future.
- Strategic – Sees the need to change and plans for the future, with well-defined structures and processes in place.
- Transformational - Constantly evolving to shape the future, fluid in nature and redefines the external environment.

At the close of this process, three dimensions had been identified for inclusion within the new model; the original key critical characteristics, the energy attributes, which represent the value driven external market influence, and the metaphors / structural characteristics, which help to define and measure organisational performance in the constituent parts of an organisation, shown in Table 9.

Key Characteristics	Energy Attributes	Structural Metaphors
<i>Critically Internal</i>	<i>Outside Influence on Value</i>	<i>The parts that make up the whole</i>
Strategy and Vision	Agility	Transformational
Change and Innovation	Output	Strategic
Resources and Leadership	Capability	Managed
Output and Value	Disruption	Siloed
Processes and Systems	Energy	Fragmented

Table 9: Final Characteristics for the New Model (Author's own work)

6.9 The need for a model, but not as we know it

The term “business model” is used to encompass a wide range of formal and informal descriptions of the core elements of an organisation. An organisation’s business model is the way it addresses the market: the known and unknown customers; the value propositions it seeks to leverage; the market offerings it looks to develop; and the business relationships it deploys to do so.

Business models are stories. They provide descriptions of a business and can answer certain questions such as: What market are we in? Who is the known unknown customer? What is the value proposition? How can that value be realised? What underlying economic logic explains how value is delivered to customers at an appropriate cost?

Every viable organisation is built on a sound business model, but the business models studied by the author in the literature are linear in action. They are static as they capture the moment in time of where the business is actually at. They are cumbersome in real time and with the pace of change getting faster and faster they need to be more dynamic, more efficient, and provide key insights/measure of the critical characteristics of performance and the productivity associated with these characteristics. A key requirement for any business is to be the architect of their own future and to develop its moving parts to drive effectively to that future.

At their core, all business models should address these questions: how do we sustainably deliver value to our known and unknown customers? How do we integrate the Voice of the Market, with the Voice of the Business, with the Voice of the System, with the Voice of the Customer, with the Voice of the Employees, with the Voice of the Process? In order to do so effectively the business model must be aligned to the organisation model. The practitioner has described organisational modelling as the need to go beyond the known knowledge and the lines and boxes to define the decision rights, the key accountabilities, the internal governance, the climate and culture, the signature practices (the way things get done around here), the leadership and the linkages between the key levers of market value output.

In using many models, the author as a practitioner has learnt that there are several strong themes impacting business modelling and organisational modelling emerging in field work. Business models are changing dramatically as the pace of change in the next decade will be even more fundamental. Technology, globalisation, demographics and other factors are influencing organisational structures and cultures. Large corporates are turning into mini-states and taking on a prominent role in society. Specialisation is creating the rise of collaborative networks. The environmental agenda is forcing fundamental changes to business strategy. These changes in business models will have a direct impact on organisational models which will need to adapt and change in order to respond to these market forces.

Some of the organisational models studied in the literature review, and models used by the author in their day to day work include:

- Value Networks;
- Chesbrough Model:
- Strategy Diamond:
- Staehler: Business Models in the Digital Economy 2001.
- Business Model Canvas: Alex Osterwalder
- Long Range Planning:
- Baden-Fuller and Morgan.
- Seizing the White Space: Mark Johnson/ Clayton Christensen,
- Escape Velocity: Geoffrey Moore

However, these organisational models are likely to be deemed obsolete in the very near future. In the external environment we will see the new emerging workforce “millennials” for example demanding a shift away from "command and control" based organisations and seeking greater autonomy and freedom of choice in the way work is performed. This will drive a need for shifting of the organisational design and will, in turn, lead to a new kind of operating model. They will seek out digital and virtual as normal aspects of the work system. Without greater insight and sensitivity into these needs, or a recognition of these trends companies of tomorrow will be hard-pressed to create an organisational design or operating model. In the experience of this practitioner, hierarchical organisational models aren't just being turned upside down—they're being deconstructed from the inside out. There is a wind of change coming that is demanding change. Businesses are being required to reinvent themselves to keep pace with the challenges of a volatile uncertain and fluid, unpredictable world. This leads to the conclusion that a new model is required.

Any new business model needs to bring a rigorous approach to organisation design by assessing the strengths and weaknesses of the current organisation and design a robust new structure for the future. Further it must be able to link the organisation to its vision and strategy which will then realise value by focusing leaders' attention on the strategic priorities and critical operations of both the macro and micro of each business unit, business level, geography or demographic. It must focus the organisation on value creation by focusing its attention on trends and insights which allow for the exploitation of value-adding "programmes". It must allow the organisation to execute on key strategies and drive specific strategic initiatives. It must deal with complexity through simplicity, eliminate waste, be future focused and market driven.

Some models use a number of dimensions as quoted above from field work and from literature, such as four bases (Balance Scorecard), seven elements (7S), five elements (TRIZ), five systems (VSM) and seven profiles (DNA). However, none of these models provide any real-time tracking facility to be able to monitor any changes when moving between current states to desired future states. These models provide a framework that allows us to analyse organisational structures in relation to the ideal types. They also allow the creation of different potential configurations which helps us understand organisations' change over time. The challenge is that most organisations

work in a dynamic and complex environment thus limiting the relevance of the model quoted.

Any new model used must be dynamic, be constantly evolving, seek out trends and allow for change in real time, thus allowing organisational shifts to occur. The need for a model is indisputable. The dynamic nature of the model is critical. The tolerance for change must be high. The outcomes must always be ambitious, ambiguous, adaptive and therefore any model must be able to capture the flow or rhythm of an organisation over time. However, we need to ensure we have a model and it fits the criteria above

6.10 Building the New Model

An interactive process was used to build a model. The first draft was a simplified, one dimensional picture of what the author initially perceived to be reality, prior to the completion of the literature review, which aimed to take into account the author's practitioner knowledge and experience. However, upon completion of the literature review, the author's mindset was significantly changed, due to the hierarchies of characteristics developed, the key areas of energy identified and the introduction of new areas to be considered. It was clear that a one-dimensional model would not be sufficient or flexible enough to capture the journey of organisational change within any organisation, never mind one as complex as the organisations of the 21st century.

The author was faced with a problem of conceptualisation – 3 dimensions had been identified, with unique, interconnected characteristics within each dimension. The new model needed to be able to capture not only these characteristics and their measures, but also their relationships and impact on each other.

6.10.1 What Kind of Model to Build.

Organisations are complex systems (Frank and Fahrback, 1999), due to the multitude of elements affecting them internally and externally. Within this complex system these elements interact with each other on different levels. The structure is complex in that they are dynamic networks of interactions, and their relationships are not aggregations of the individual static entities.

In the research completed, the author examined a multitude of models and found that whilst many meet a specific need, few addressed the dynamic nature of change on a

three-dimensional level. For the purpose of this research the author requires a three-dimensional framework but one that would allow for a fourth dimension (or even fifth dimension) to be added in the future. The models examined in the literature review (Fig 11) were re-interrogated, together with some additional models, which included those in Figure 48: Key Organisation models relied upon .

- Balanced Scorecard
- Profiles in Organisational DNA
- Deloitte Shareholder Process
- McKinsey 7 Segment
- Viable System Modelling
- Game Theory
- TRIZ
- Lewin's Model 1945
- Kotter's Model 1996
- Jick's Model 2003
- Models that apply to step approach

Figure 48: Key Organisation models relied upon (Author's own work)

In many of the models examined there is a gap between the organisation's current status and its future state, in real time. This is one of the gaps the new model needs to fill.

With the three lists of 5 characteristics to include, the most obvious shape for the model would seem to be a 5x5x5 cube. Whilst this structure would be relatively novel in the field of business models / organisational development, there is some precedence for this, and examples of similar models are outlined below:

6.10.1.1 Choice of Cube

The practitioner as his career developed was HR Director at Nortel Networks in 1990 and was heavily involved in organisation development and in talent management. During this period the author applied many organisational models many of which were cubes and worked across three of four dimensions Schmuck (Schmuck, 1976); Blake

and Mouton (Blake and Mouton, 1994); Reddy (Reddy, 1994)). The three dimensions of the Reddy Cube are:

- Focus of Intervention
- Type of Intervention
- Level of Intensity

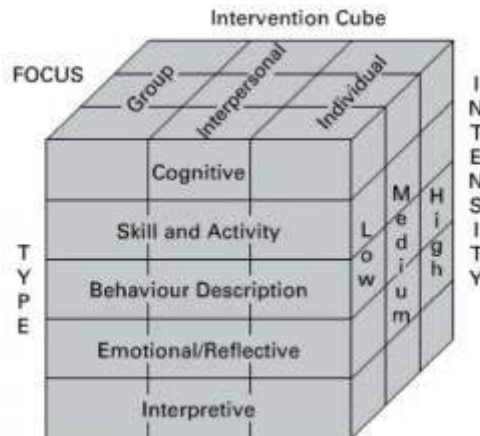


Figure 49: Reddy Cube (Reddy, 1984)

In examining and reflecting on the best method to represent the research findings across the three dimensions identified within the research of bases, strands, and levels, the author further sought out any model that enabled firstly visualisation of the data captured, secondly a business insight on the data represented, thirdly good opportunity for comparative analysis between the current 'as is' position and the desired future position. It was important to the author and within the field group sample feedback that the model was able to hide all the individual inputs of data but also allowed users to review any particular aspect of the data or dimension to understand concept hierarchies of characteristics, be they bases or strands or levels of structure, whilst providing more both a macro and micro view of data. The author felt that a cube offered the best model to address the research completed. In building the model the author reflected on Notes from *The Critical Incident in Growth Groups*, by Cohen and Smith. (Cohen & Smith, 1976) which stated,

“When classifying an intervention (on any axis), it is not the content of the intervention that leads to its classification level, but the focus of the response that is the determinant... When an intervention starts at a group level, and drills down to an

individual level, it is more intense, and an increase in critical incidents of an emotional nature could be expected following this type of intervention.”

(Cohen & Smith, 1976)

There were three key phases in the designing and structuring of the cube:

- Phase 1: Identifying the characteristic to be measured that is the Base
- Phase 2: Identifying the measurement of energy of that characteristic which was the Strand
- Phase 3: identifying the structure of the characteristic which was referred to as the Level.

6.10.2 Model Building Conclusions

In examining the requirements considered within this research the author looked at a number of key diagnostic questions:

- What problems have been identified through the organisation diagnostic change phase and will a cube model allow for these to be represented effectively and efficiently?
- Will the cube allow for the specific issues to be highlighted quickly and identify key areas of alignment and contradiction?
- Will the cube visually show what any change intervention should focus on?
- Will the cube represent the level within the organisation system that the change intervention should be aimed at – be it an individual, group, geography, domain or organisation wide?
- Will the cube show clearly the elements of the organisational system which should be the key focus of attention?
- Will the cube allow the leader or change agent to track any intervention?
- Will the cube capture the many participants in the organisational system that will be impacted by the change programme?
- Will the cube clearly demonstrate the exposure to change all affected participants have been impacted by?

- Will the cube create a model that will allow current status to future desired result to be tracked?

Following this framework, the new model was designed to consist of 5x5x5 autonomous variables, contained within the dimensions of the key characteristics, energy attributes and structure. The cube form helps better visualise elements and their interactions.

The Bases (Key Characteristics) - The bases separate the critical aspect of organisation performance and are all of the elements that contribute directly or indirectly to the fulfilment of the performance of the business.

The Strands (Energy Attributes) – The strands are the means by which the work of the characteristics is performed and its functions are created to oversee work and ensure its contribution to the performance of the business

The Levels (Structure) - The level varies by organisation, but there are similarities. It clearly outlines the structure of the organisation in its current operating mode and allows for creation of a strategic desired result across all the bases and strands.

6.10.3 Interaction and Interrelationships among Dimensions and Elements

The dimensions and variables within the 5x5x5 model are not separate, but rather interrelated. So, in constructing any model we must view it in relation to the other elements in its dimension along with the other dimensions. Addressing each element is not a definite yes or no answer; it is more of a consideration of the element and its interactions. This means that it requires a narrative description that answers the 'who, what, when and how' of change, as described in Appendix 10. Another advantage of a cube-based model is the way the cube can be used to break each element down into its smaller components. The cube consists of 125 components. Each carries one element from each of the three dimensions (Appendix 10).

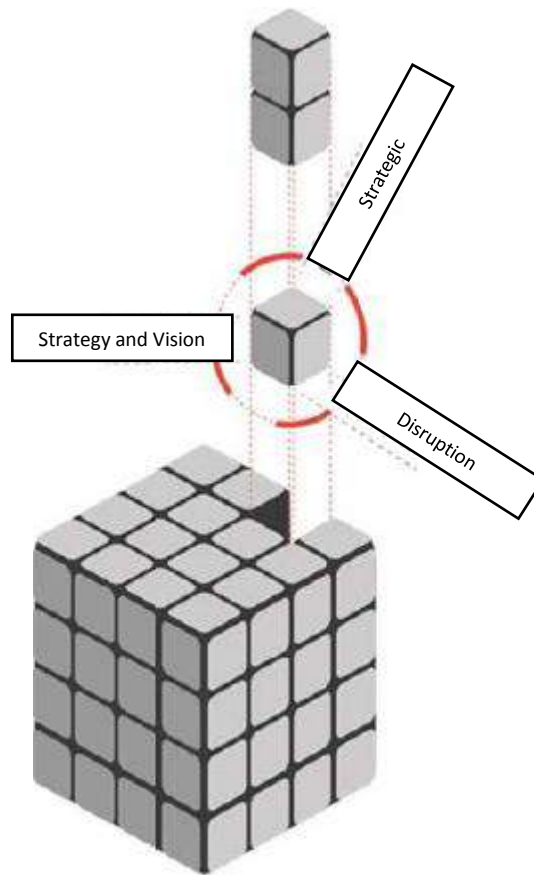


Figure 50: Examining the model (Author's own work)

In building the model the author took each of the characteristics and defined a narrative description of what each characteristic meant within each structure. This meant that the bases need to be described in detail within the structure. The steps taken were:

- Strategy and Vision was defined by narrative description at Fragmented Siloed, Managed, Strategic, and Transformational Level;
- Change and Innovation was defined by narrative description at Fragmented Siloed, Managed, Strategic, and Transformational Level
- Resources and Leadership was defined by narrative description at Fragmented Siloed, Managed, Strategic, and Transformational Level
- Output and Value was defined by narrative description at Fragmented Siloed, Managed, Strategic, and Transformational Level
- Process and Systems was defined by narrative description at Fragmented Siloed, Managed, and Transformational Level

Climate, culture, decision making, execution was added later after the case studies and were measured over a 7x7x7 model.

- Climate and Culture was defined by narrative description at Fragmented Siloed, Machine, Managed, Optimising, Strategic, and Transformational Level
- Decision Making and Execution was defined by narrative description at Fragmented Siloed, Machine, Managed, Optimising, Strategic, and Transformational Level

Base/Strand	Fragmented	Siloed	Machine	Managed	Optimising	Strategic	Transformational
Strategy and Vision	No link between different parts of the organisation and input is ad-hoc and individualistic.	The development of strategy is managed within different business units or teams.	The development of strategy is aligned across the organisation, although there is little external scanning.	The organisation is able to identify key issues impacting on work events and technology.	The organisation routinely and systematically scans external environments and this will inform the strategy.	The organisation is proactive and starts by looking into the future. It provides a sense of direction, continuity and effective staffing and leadership.	The transformational business vision not about winning today's game, but about creating the rules by which tomorrow's game will be played.
Change and Innovation	No formal innovation process capability. Any innovation successes, therefore, are more likely the result of luck than judgement.	There are some 'hubs on the board' - innovation and change are beginning to build some champions, and there is a network of supporters.	There is a basic innovation process in place and this is consistent across the organisation.	Innovation capability evolution starts when there is a clear innovation process in place and goals are set.	Innovation is visible within the organisation and senior managers will aim to implement it throughout the organisation.	Innovation is now highly visible on the senior management radar screen and there is probably going to be someone with full-time responsibilities for innovation with that team.	The organisation is able to proactively venture outside its core skill areas and into other areas.
Resources and Leadership	People are seen as assets to be used by the business. Recognition is given to those with long service and specific technical knowledge or skills.	People are structured into functions and follow technical career pathways, sections moving out of their discipline.	People prefer to work within their functional disciplines, however, they are willing to collaborate to achieve organisational objectives.	People will work within their functional disciplines but will readily work across organisational boundaries to ensure that the job gets done.	People actively look for opportunities where value can be added through collaborative working.	People across the business understand the strategic imperatives and drivers and routinely sign their actions and behaviours to ensure that the vision and strategy is achieved.	The business is vibrant and full of energy. People understand their responsibilities and are empowered to make decisions which deliver required results for the customer.
Output and Value	The business is incapable of providing a consistent level of customer service or providing a consistent quality of product.	The business is capable of delivering consistent levels of customer service and product quality to customers. Customer service and quality are measured through KPIs.	The organisation uses KPIs to measure the consistency of customer service across the organisation.	The business is able to attain consistent levels of customer service and can deliver consistent product quality to customers.	High levels of customer service and delivery are the norm across the organisation.	People understand that delivering a high value product can only be achieved by actively breaking down the internal silos and removing them across the organisation.	The organisation has received a position where customers view its products, services and the organisation itself as the 'Global Standard'.
Process and Systems							

Screen shot of the database built for the case studies and shows the base descriptions for the key characteristics. (Expanded Version in Appendix 14)

Figure 51: Case Study Database (Author's own work)

The second part of the work involved each energy strand needed to be described in detail within the structure. The steps taken were.

- Capability was defined by narrative description at Fragmented, Siloed, Managed, Strategic, and Transformational Level
- Energy was defined by narrative description at Fragmented, Siloed, Managed, Strategic, and Transformational Level
- Disruption was defined by narrative description at Fragmented, Siloed, Managed, Strategic, and Transformational Level
- Output was defined by narrative description at Fragmented, Siloed, Managed, Strategic, and Transformational Level
- Agility was defined by narrative description at Fragmented, Siloed, Managed, Strategic, and Transformational Level

Health and Emotional were added later after the case studies and were measured over a 7x7x7 model.

- Health was defined by narrative description at Fragmented, Siloed, Machine, Managed, Optimising, Strategic, and Transformational Level
- Emotional was defined by narrative description at Fragmented, Siloed, Machine, Managed, Optimising, Strategic, and Transformational Level

Base strand	Fragmented	Siloed	Machine	Managed	Optimising	Strategic	Transformational
BC1 - Clarity	There is no underlying vision or strategy for the organisation.	There is a business strategy but it is operationally led with a tendency to follow the market.	The business strategy is aligned to business objectives and hence to prioritise operational activity over strategic activity.	There is an aligned strategy and business objectives drive the direction and priorities for strategic activity.	The strategy is well aligned and communicated across the business and is able to react changes in order to keep up with major changes within the external environment.	The organisation has well developed systems in place for detecting changes in the marketplace.	The vision and strategy for the organisation are clear, concise and inspirational and the business is clear transformational.
BC2 - Disruption	The strategy is not sufficiently robust to deal with unexpected pressures or changes.	Disruptions and change are addressed at a tactical level or within functional teams leading to a disjointed approach.	Disruptions are addressed at an operational level and there is no formal system in place to detect disruptions.	The organisation has structures in place to detect disruption or change in the external environment and is able to respond appropriately.	The organisation is able to detect disruptions and is able to adapt quickly.	The organisation has a very well developed strategic management capability and can adapt and change strategy easily and effectively.	The organisation is not only a driver of disruptive change, but responds fluidly and flexibly to changes which it sees as opportunities.
BC3 - Energy	People focus on delivering to plan and do not seek to excel if it means challenging the status quo.	There is a compliance with the strategy at a team level but not necessarily across business processes beyond the team level.	People generally comply with the strategy across the organisation, although they may not be enthusiastic about it.	There is evidence of enthusiastic compliance and pockets of commitment across the business. People strive to do well.	People comply enthusiastically across the organisation and are generally committed to their work.	There are high levels of commitment and engagement and people drive for success with passion and determination.	People work enthusiastically to deliver the strategy and there is real and tangible ownership and championing of goal delivery.
BC4 - Output	The strategy is complied with to achieve output but the approach is disjointed and overly tactical.	People comply with the strategy that has been handed down because that is the way it is done.	The organisation is able to deliver its current goals, but it does not aim to improve itself regularly.	The business demonstrates capability to deliver its goals in a coordinated manner with continuously improving output.	The organisation aims to continually improve its working strategy but does not focus on keeping up with emerging trends.	There is an advanced strategic capability to deal with customer needs and emergent trends within the marketplace.	There is a clear and fuzzy strategy that is highly adaptive in meeting customer needs and anticipating and/or creating market change.
BC5 - Agility	There is a common view that the organisation can survive on without the customer focus.	A culture of customer focus exists but it is a team focus.	Customer focus exists across the organisation and outside staff work.	Customer focus and the level of collaboration working creates a culture.	People actively seek to collaborate and learn to achieve goals for customers.	The culture emphasises the importance of adaptability to meet changing.	The organisation has an empowered culture which creates, sustains and

Screen shot of the strands at each level within the overall structure, built for the case study. (Expanded version available in Appendix 14)

Figure 52: Database Structure (Author's own work)

The narrative descriptions used were mapped back to the McKinsey 7S model to ensure that the descriptions were robust. They were also tested with a group of 10 subject matter experts, drawn from academia, the world of work, and consultant coaches. The final draft was reviewed by the author from his expertise but particularly from the literature review and the findings established.

However, as a key part of the research question was around tracking change in real time, it was vital to the author that in an organisation establishing their current position within the model and also establishing their future desired position, they could plot the journey map between both points.

The author reviewed the model and then described the journey map in narrative form between each of the base characteristics first. This meant that an organisation could understand its current position on base characteristics, the strands and the levels and plot its desired future position across its base characteristics, the strands and the levels,

A narrative report of the key criteria in moving on the base characteristics across the structure was built with the model. This meant defining the journey map as described in Fig 53 of:

- Strategy and Vision journey from Fragmented to Siloed. Siloed to Machine. Machine to Managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation.
- Change and Innovation journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Resources and Leadership journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Output and Value Change journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic-Strategic to Transformation
- Process and Systems journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Climate and Culture journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Decision Making and Execution journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation

Base/Strand	Fragmented - Siloed	Siloed - Machine	Machine - Managed	Managed - Optimising	Optimising - Strategic	Strategic - Transformational
SV - Clarity	The organisation needs to develop a strategy of some sort, even if this is purely operationally led.	The organisation needs to start aligning the strategy with business initiatives whilst prioritising operational activity.	The organisation needs to develop its strategy so that it is aligned with the organisation's strategic activities.	The organisation needs to align its strategy with major changes that are occurring within the external environment.	The organisation needs to develop a strategy for detecting changes within the marketplace.	The organisation needs to develop a transformational strategy that will allow the organisation to shape the market.
SV - Disruption	Individual silos need to address disruptions and decide upon their own course of action.	The organisation needs to address disruptions at an operational level when they become apparent within the organisation.	The organisation needs to develop structures that will be able to detect disruptions within the market.	The organisation needs to be able to detect disruptions quickly and adapt to them accordingly without haste.	The organisation needs to develop a strategic management capability that is able to implement changes with efficiency whilst ensuring effectiveness.	The organisation needs to drive disruptive change and be able to respond fluidly to disruptions which could provide it with opportunities.
SV - Energy	The organisation needs to ensure compliance within teams even if this does not necessarily spread across the organisation.	The organisation needs to ensure that people across the organisation comply with the strategy, although they may not be enthusiastic about it.	The organisation needs to improve the enthusiasm levels within the organisation.	The organisation needs to develop strategies that encourage people to strive to do well.	The organisation needs to be able to monitor the commitment and engagement of people across the organisation to ensure they are working with passion and determination.	The organisation needs to ensure that people have ownership of their work and that the organisation champions goal delivery. People will strive to do well throughout the organisation and are more than willing to put in discretionary effort.
SV - Output	Individual silos need to develop strategies that aim to deliver the silo's necessary output.	The organisation needs to be able to deliver its current goals effectively.	The organisation needs to be able to work in a coordinated manner to make some changes that will help to improve upon the organisation's output.	The organisation needs to continually improve upon its existing strategy but these do not need to focus on keeping up with emerging trends.	The organisation needs to develop an advanced strategic capability to deal with customer needs and emergent trends within the marketplace.	The organisation needs to develop a clear and fuzzy strategy that is highly adaptive in meeting customer needs and anticipating and/or creating market change.
SV - Agility	Individual teams need to develop a culture of customer focus.	The organisation needs to develop a customer focus across the	The organisation needs to develop a culture of collaborative working.	The organisation needs to develop a culture in which people will	The organisation needs to develop a culture which emphasises the	The organisation needs to develop an empowering culture which

Figure 53. Screen shot from the database created to run the case studies and provides a demonstration of the journey maps developed. (Expanded version available in Appendix 14)

Figure 53: Database Journey Maps (Author's own work)

In plotting the movement within the model, it was vital that each characteristic was measured to the organisation current and future position. Further each strand needed to be plotted within the model and measured within the model from current to future position. For example, as the base characteristics need to be tracked so too did the strands and for example for Energy it needed to be tracked in this way:

- Energy on Strategy and Vision journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Energy on Change and Innovation journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Energy on Resources and Leadership journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Energy on Output and Value Change journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic-Strategic to Transformation

- Energy on Process and Systems journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Energy on Climate and Culture journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation
- Energy on Decision Making and Execution journey from Fragmented to Siloed. Siloed to Machine. Machine to managed. Managed to Optimising. Optimising to Strategic. Strategic to Transformation

And the same for the strands Health, Capability, Disruption, Output, Agility, Emotional.

A complete enterprise transformation will only succeed if the organisation adapts to changing market needs and ongoing technological disruption. While the desired future state vision is often clear to transformation leaders, different business units or silos or business streams often only understand their own individual components in detail. While the idea of change journey mapping is nothing new, organisations often don't display the rigour and specificity required to make this technique useful for either diagnostics or communications. The change journey mapping process can be done in two modes: current state and ideal future result IFR. Current state is used in a diagnostic phase of a transformation to identify the current status of the business, both strengths to build on and weaknesses to be addressed. The IFR is used to envision what the future state should look like by working back from the business vision and identifying structure, people, process and technology changes to evolve the organisational design of the business.

The creation of a database was the final development of the New Model development. The primary purpose of development was to automate the tracking of change in the 5x5x5 New Model. Each base was outlined in a narrative description on five levels. Each strand was outlined in a narrative description on five levels.

6.10.4 Reflective Learning

As the new model develops there is a constant need to ensure that it is dynamic enough to learn from its actions and be able to recreate itself for a new set of

circumstances. The future iterations must be that platform for further research. The current research provided a wealth of knowledge and a set of further questions around ideas acquired but not explored

6.11 New Model Conclusion

The new Model is built as an analytical model and a sustainable model that fits the organisational needs and evolves over time with the organisation. The model allows leaders to build a desired future state that is custom tailored for their organisation, improving its ability to deliver value. It ensures that leaders are addressing all the elements in a simple yet effective manner. It identifies key characteristics and their inter-relationships that determine the nature, behaviour, and performance of business organisations. It provides a framework where these characteristics and their inter-relationships can be used to support change management and performance improvement in business organisations. There is room for improvements, especially in the way the model can be used. In future work the new model can develop into a four-dimensional model.

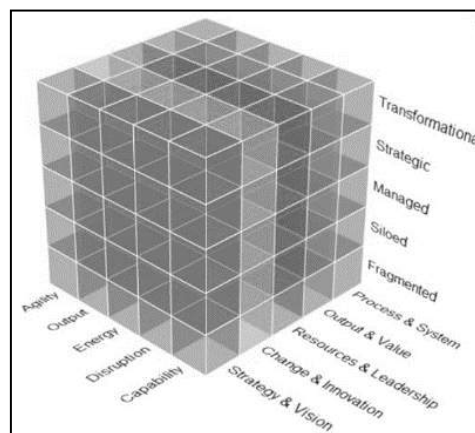


Figure 54: The New Model (Author's own work)

In the development of the model the author did return to first principle and compare “The New Model” to the models that had been examined earlier to establish if the assumptions and research were robust, and to ensure the new model was making a contribution to knowledge. This analysis demonstrated that the model created offered an ability to measure the critical characteristics associated with organisational change. To summarise, it has been shown section 4.10.12 that the current models make certain distinctions to show how different perspectives and abstractions contribute to analytical processes leading to change and transformation programmes. The New

Model removed these distinctions as it clearly identified the base characteristics associated with understanding the organisation. In addition, it goes further by also identifying the key energy measures from an external perspective and allows the structure to be adaptive to the circumstances of where the organisation is now and wants to be in the future. A commonality of all the models examined is they all claim to be holistic, achieving this through various perspectives and using their particular systems or building blocks. For example, some models use four bases (Balance Scorecard), seven elements (7S), five elements (TRIZ), five systems (VSM) and seven profiles (OrgDNA). However, none of these models provide any real-time tracking facility to be able to monitor any changes when moving between current states to desired future states. The new model addresses this issue by the system created to support it which allows assessments to be carried out across any structure, demographic, geography at any time and to measure movement within those measures.

Models provide us with a framework to analyse organisational structures in relation to the ideal types. The new model allows for the organisation to decide its ideal type, or to select an internal best in class type, or to compare to an external best in type so therefore offering more flexibility and insightful knowledge. Models also allow the creation of different potential configurations which helps us understand organisations' change over time. The new model also allows for different configurations but offers much more flexibility on the configuration and the opportunity to internalise the configuration or the comparison. In reviewing all the models used through the Literature Review, within the re-examination of the literature or as listed below the new model provided a greater capability to track structural changes in real time and right across the most complex of organisations while preserving its pattern or organisation. The comparisons and output of this process are detailed in the tables 10, 11, 12, 13, 14 and 15.

Viable Systems Model – Beer, 1972	
Similarities to the New Model	Differences from the New Model
Each system 1 entity is similar to “The New Model” silos (i.e. independent systems working towards the organisational goals)	System 1 entities stop representing silos when system 2 operations are present and system 1 entities are coordinated.
System 2 operations are similar in concept to “The New Model” levels above ‘Siloed’ as these levels show coordination of different internal groups.	The higher levels of “The New Model” (in particular the ‘Transformational’ level) do not contain internal boundaries (i.e. no system 1 entities). At the ‘Transformational’ level, organisations do not have the VSM structure and rather than having levels of the organisation, they will have a fluid-like structure.
System 3 looks at the control of system 1 entities by the senior management. This links to the ‘Machine’, ‘Managed’, and ‘Optimising’ levels of “The New Model” which all demonstrate levels of highly managed, coordinated operations – without the autonomy that is seen at the ‘Strategic’ and ‘Transformational’ levels.	System 3 refers to the direct monitoring of operations which does not tend to be included within “The New Model”. “The New Model” looks at how performance is monitored and how changes to the external environment are monitored as opposed to how operations are carried out.
System 4 concentrates on looking outside of the organisation for the future. This links to the ideas of ‘Health’ within “The New Model”, as well as ‘Change and Innovation’ at ‘Strategic’ and ‘Transformational’ levels.	The VSM model looks for an organisation to have a full system 1-5 operation at each level of the organisation. Whereas “The New Model” does not have a future scope at lower levels (‘Fragmented’ to ‘Managed’).
System 5 looks at how organisational ethos and culture shape how the organisation operates. This shows similarities to how “The New Model” looks at how organisations are able to create conditions for the future in ‘Health’. System 5 operations also link to the ‘Climate and Culture’ base within “The New Model”.	System 5 focuses on how organisational ethos and culture influences the organisation via policy, whereas “The New Model” looks at how culture impacts the organisation via its people. Policy, strategy and structure are analysed as separate entities with “The New Model”.

Table 10: VSM vs The New Model (Author's own work)

Organic/ Mechanistic – Burns & Stalker, 1961	
Similarities to the New Model	Differences from the New Model
Although the Burns and Stalker model only has two distinct levels (as opposed to New Model's 7) these two levels are seen as polar extremities with intermediate stages in between.	"The New Model" recognises 'Transformational' as the optimum level for an organisation to aim for whereas the Burns and Stalker model holds the view that there is no optimum type of management system and that neither a mechanistic approach nor an organic approach will always hold superiority over the other in all circumstances.
Both "The New Model" and the Burns and Stalker model acknowledge that the same organisation will not be the same level across the organisation. The Burns and Stalker model states that an organisation can operate with a management system that will include both types. Similarly, "The New Model" allows for different aspects of the organisation to be set at different levels.	The Burns and Stalker model sees the two ends of the spectrum as a polarity rather than a dichotomy (i.e. the two extremes are not mutually exclusive) and that one does not hold superiority over the other. "The New Model" sees the 7 levels as a scale with increasing importance
Both of the models focus on the commitment of employees, the Burns and Stalker model is primarily focused around employees and the autonomy they have over their roles. "The New Model" looks at the culture of the organisation and 'Resources and Leadership' focuses on how the organisation uses its people to achieve its outputs.	Burns and Stalker primarily focuses on boundaries within the organisation and the level of autonomy people have as opposed to "The New Model" focusing on how the organisation is able to achieve its targets and secure market positions. The Burns and Stalker model is more people-centric than "The New Model".
The Mechanistic state of the Burns and Stalker model bears close resemblance to the lower levels of "The New Model" ('Fragmented' to 'Managed') in that it is effective in stable conditions but unsuitable during periods of change and uncertainty.	The Burns and Stalker model says that an organisation oscillating between stability and change will oscillate between mechanistic and organic. "The New Model" looks at how an organisation is able to work towards achieving a consistent state of innovative practice, rather than resting in a stable market.
The Mechanistic state is characterised by people working on their own, this shows a resemblance to the 'Fragmented' and 'Siloed' levels of "The New Model" where there is an uncoordinated approach to work.	The Burns and Stalker model states that the Organic state often leads to individual managers being uncertain of what is expected of them. An organisation displaying these characteristics would not be a high level within "The New Model" as they are measured against how well the strategy and vision are communicated and

	understood, as well as how well they are integrated throughout the organisation.
The Organic state is characterised by individuals having no boundaries on their feasible demands, which is similar to “The New Model” in the higher levels, where people have high levels of autonomy over the work they complete.	The Burns and Stalker model shows centralised decision making as a characteristic of a Mechanistic organisation, whereas in “The New Model” this would be seen in higher levels, due to the alignment with the strategy and vision.

Table 11: Organic / Mechanistic vs The New Model (Author's own work)

Learning Organisations – Senge, 1990	
Similarities to the New Model	Differences from the New Model
The learning organisations model recognises the need for shared vision in order for people to excel. “The New Model” also relates to the need for a shared vision to gain people’s commitment to the organisational goals.	The Senge model has a focus on individual learning (metanoia) and how this can impact on the organisation. Whereas “The New Model” looks at how an organisation is able to change, with individual learning being one aspect of this.
The Senge model promotes a culture that is focussed on learning which links to the idea of continuous learning throughout “The New Model”. “The New Model” emphasises the need for continuous improvement of the organisation and continuous learning for the people of the organisation.	With the Senge model Systems Thinking is central and holds the other disciplines together, whereas “The New Model” does not weight one area over the others. In “The New Model” the strands and bases overlap and show interrelations but they are not reliant around one central point.
Constant innovation and thriving on change are two aspects that appear within both models. At the “Transformational” level of “The New Model” an organisation is required to constantly change and innovate	The Senge model talks about how the whole exceeds the sum of its parts, which is an idea that is not included in “The New Model”. “The New Model” looks at the organisation as a whole entity as opposed to how each individual contributes towards the organisation’s success. “The New Model” talks about how people within the organisation act in a more general sense.

<p>The idea that the ability to learn provides an organisation with a competitive advantage is included in both of the models.</p>	<p>Senge refer to disciplines as opposed to the levels that are used within “The New Model”. “The New Model” grades, in a sense, the organisation, whereas the Senge model looks at activities which happen, to varying degrees, within all organisations.</p>
<p>Discretionary effort is something that can be seen within organisation’s operating at the top levels of “The New Model” and is also a characteristic of a high performing organisation in the Senge model.</p>	<p>The Senge model dispels the notion that “the enemy is out there”. The Senge model is of the view that the organisation creates its own problems. “The New Model” focuses on how the organisation reacts to changing market conditions and how it can keep up/ shape the market using innovation and transformational practices.</p>
<p>The Self-mastery aspect of Senge’s model show similarities to the idea of Emotional Intelligence which is captured in the “Emotional” strand of “The New Model”.</p>	
<p>The Senge model encourages people at all levels to work towards the organisational goals and this idea is expressed within “The New Model” too. At high levels of “The New Model” people at all levels of the organisation participate and work together in an aligned manner.</p>	

Table 12: Senge vs The New Model (Author's own work)

Organisational Structures – Mintzberg, 1989 - amended	
Similarities to the New Model	Differences from the New Model
<p>The Machine description within the Mintzberg model bears a resemblance to some elements of “The New Model”. For example, the Machine organisation type tends to show traits of efficient, consistent, reliable, highly standardised work processes which is similar to the ‘Machine’ and ‘Managed’ levels of “The New Model”.</p>	<p>The Mintzberg model shows an organisation end point as Political. “The New Model” does not show an end point of an organisation.</p>
<p>Both the Mintzberg model and “The New Model” include references to Operational Excellence practices and lean thinking. The Mintzberg describes its Machine organisation as one that has adopted a strategy of OpEx</p>	<p>The Mintzberg model shows the journey of an organisation from start to finish, whereas “The New Model” measures an organisation’s current state against where it desires to be. “The New Model” does not look at the life cycle of an organisation, it looks at how a</p>

	transformational organisation is able to shape markets to secure its future.
In the Mintzberg Innovative organisation, there are sets of functional experts who lead change, which shows similarities to the lower levels of “The New Model”. This also shows that functional experts are deployed in multidisciplinary teams which is similar to the collaborative structures that can be seen throughout “The New Model”.	The Mintzberg model looks at how an organisation fits into one of three main branches depending on the services it offers, whereas “The New Model” gives an organisation a level based upon the standard of its current state.
The Mintzberg model makes reference to Innovative organisations being high tech with frequent product changes, this is similar to the “Strategic” and “Transformational” levels of “The New Model”, in which organisations are updating their products and services to keep up with/ shape the external environment and market.	“The New Model” allows for an organisation to move between the levels, whereas the Mintzberg model does not allow for organisations to move between Machine, Innovative, and Professional Bureaucracy.
In Mintzberg’s Professional Bureaucracy organisation, there are silos or pigeonholes in which people work independently. This mirrors the “Fragmented” and “Siloed” levels of “The New Model” where there is little coordination and alignment of activities.	The New Model offers a great depth of analysis and a great interrelationship comparison.

Table 13: Organisational Structures vs The New Model (Author's own work)

8 Steps of Change – Kotter, 1996	
Similarities to the New Model	Differences from the New Model
The 'creating the climate for change' cluster of steps in Kotter's model are similar to the ideas within the health strand of "The New Model". Health looks at how the organisation creates conditions that allow for high performance both now and in the future and this means that the conditions need to allow for change to occur. The idea of continuous change is something that is within the Kotter model as well as within the Health aspects of "The New Model".	Kotter's model recommends to 'communicate the essentials' whereas "The New Model" looks at how the organisation can allow for people to have autonomy over how they implement changes, this means that people will need to know all of the information regarding changes.
The Kotter model links closely to the Change and Innovation base within "The New Model", which looks at how well the organisation is able to implement changes and how well the organisation is able to create innovative solutions to problems.	Kotter's model recommends to 'set aims that are easy to achieve in bite-sized chunks' whereas "The New Model" recommends looking for how the organisational goals can be seen as a whole so that people understand how their activities fit into the overall plan.
The Kotter model has steps that relate to 'Engaging and Enabling the Organisation' which links to the Emotional strand within "The New Model" which looks at how the organisation is able to engage its people with change. It also links to the Energy strand which looks at people's motivation and commitment to change activities.	The final steps of Kotter's model look at how change can be sustained within the organisation whereas "The New Model" looks at how continuous improvements can be made. "The New Model" looks at how change can be an ongoing continual process, whereas the Kotter model looks at the steps needed to implement one singular change.

Table 14: Kotter vs The New Model (Author's own work)

Organisational Metaphors – Morgan, 1986	
Similarities to the New Model	Differences from the New Model
The Brain metaphor looks at how an organisation is able to learn, this shows similarities to the concepts of continuous learning and improvement that are seen within “The New Model”.	Morgan’s model sees each metaphor as a set description of the organisation – as a language rather than a perspective, with 99% of organisations staying within one metaphor. Whereas “The New Model” sees the organisation as being able to transit between levels as it develops.
The Machine metaphor is similar to the lower levels of “The New Model” in which each area of the organisation deals with a particular part of the process with little interaction or coordination.	The Organism metaphor sees an organisation as having birth, maturity and death, whereas “The New Model” does not look at the end of an organisation and instead looks at how the organisation is able to help itself into the future.
The Political System metaphor is similar to some of the lower levels of “The New Model” in which information is withheld and people are wary of each other, stilling the organisation’s opportunities to innovate.	“The New Model” does not represent the organisation in a way similar to the metaphor, Instrument of Domination, at any level.
The Psychic Prison metaphor is similar to the Emotional strand within New Model, where both look at how emotions play a part within the organisation’s success.	

Table 15: Morgan vs The New Model (Author's own work)

6.11 Reflective Learning

One of the main mantras that applies in many situations that the author encounters is that you cannot extend the past into the future. In constantly comparing the New Model to models designed in a different era when the pace of change was not as dynamic the author is very conscious that the New Model must deliver more than an incremental change and that any future iterations must shape change rather than react to that change

7.0 Results and Discussion

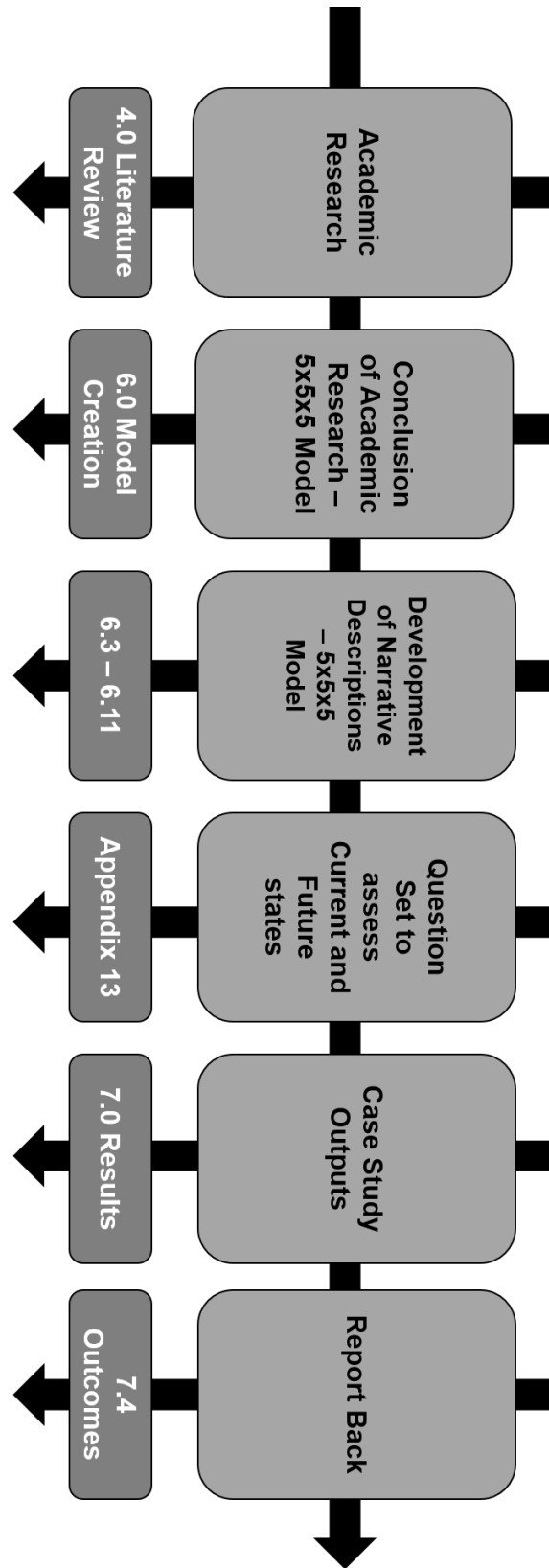


Figure 55: The usage of the New Model (Author's own work)

After the design of the model had been completed, and a methodology framework had been implemented, the new 5x5x5 model was ready to be tested, using a series of case studies.

To give an idea of the scale of the case studies, a headline view of the number of the participants across all three case studies are shown in Table 16.

	25 Questions			75 Questions		
Case Study One	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	87	62	71%	24	14	58%
Case Study Two	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	105	97	92%	20	15	75%
Case Study Three	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	32	25	78%	40	28	70%
Totals	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	224	184	82%	84	57	68%

	Face to Face / Telephone Interviews			Leadership Discussions		
Case Study One	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	7	5	71%	7	7	100%
Case Study Two	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	10	7	70%	7	7	100%
Case Study Three	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	18	10	56%	8	7	88%
Totals	Invited Participants	Active Participants	Response Rate	Invited Participants	Active Participants	Response Rate
	35	22	63%	22	21	95%

Table 16: Case Study Responses (Author's own work)

The inclusion of case studies within the research served the purpose of testing the viability of the new model, but in order to gain buy-in and trust from the participant organisations, there also needed to be a beneficial, tangible output for the organisation itself. This dual purpose had to be kept at the forefront of the process, without adversely affecting the research.

The three case studies that were conducted were chosen for a variety of reasons, including their differing markets, structures, management styles and geographies. This led to a very diverse sample, the purpose of which was to test the model in as wide a range of situations and scenarios as possible.

All three case studies followed a similar methodology and comprised online surveys, telephone and face to face interviews. Once the data had been collated and the model populated, the results were then discussed with the leadership team from each organisation. The testing process was twofold: firstly the online surveys and telephone and face to face interviews tested the ease of use (both of the question set and the survey platforms), appropriateness and scope of the questions and the structure of the model itself – i.e. would it produce a quantifiable output for both current and future states of an organisation? secondly the discussions with the leadership teams from each organisation tested the output of the model. Was it applicable? Accurate? Did it capture what they knew (or suspected) about their organisations? Did it highlight areas of conflict? In a nutshell – did it provide them with a path to change that they could conceptualise, follow and execute?

7.1 Case study One - Professional Services Company (India)

The first case study was conducted in a global professional services firm, in the business transformation sector, with 78,000 employees operating in over 20 countries. This organisation had been hugely successful in the BPO outsourcing market but is now aggressively switching to digitalisation. This shift in strategy had significant impact in the following areas:

The design and implementation a of a new vision and strategy for the business resulting in a reduction in the work force by over 40%.

The resultant requirement for a total re-skilling of significant parts of the labour-force to meet the needs of the new digital strategy, which also required a change in leadership thinking and leadership practice.

An entirely new business model and significant culture shift was required in order to address the change in business strategy.

7.2 Case Study Two – A Global Mining Company

A major subsidiary of a global resource organisation was selected for the second case study, with the intention of observing the impact and performance of the model on a global business. The group included a diverse portfolio of high-quality mining, refining and marketing operations, with over 60,000 employees based in 20 countries. This organisation was a very traditional business with a huge engineering bias. The business model was evolving as technology was changing the market focus. It was operating in a business cycle where, when the world economy was booming and the demand for natural resources was high, it could invest heavily. When the market changed and commodity prices dropped, the business had to adapt. The case study completed by the author occurred during a period of change due to the volatility of commodity prices.

7.3 Case study Three – UK Public Health Service

The third case study focused on a public health services business that was formed as part of the restructuring of the National Health Service in the UK. The organisation had 300 employees.

The National Health Service in the UK is subject to significant need for change, whilst simultaneously dealing with immense resource and cost constraints. The element of the organisation which took part in the case study was a new organisational unit that was created to provide procurement services for a significant part of the NHS, servicing approximately 6 million people. All of the employees of the organisation were newly seconded by the NHS to this unit, which created both opportunities and challenges.

At the time of the case study, the new vision and strategy for the business had just been announced and the leadership team wanted to understand the organisation's

response to the strategy articulation and the clarity of understanding of the change journey outlined

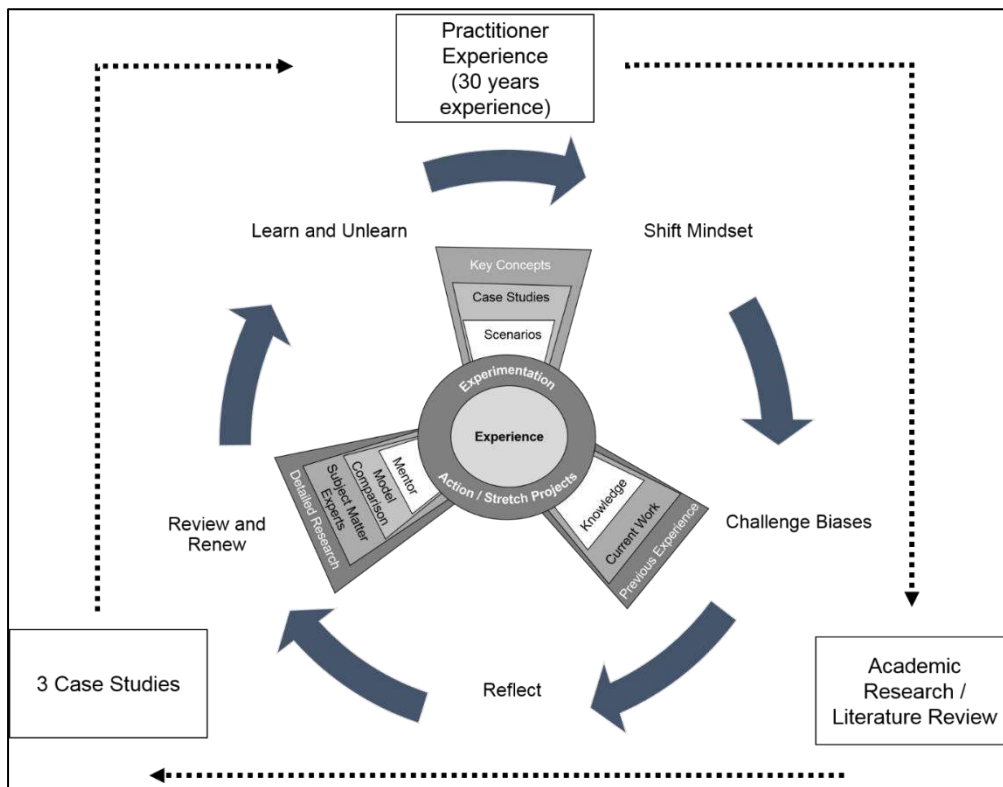


Figure 56: Case Study Reflection Process (Author's own work)

7.4 Case Study Research Outcomes

As noted at the outset of the case study process, evaluation of the results would be in two parts; evaluation of the model as it stands – including ease of use and user acceptance, and the output of the model itself, and the possible contribution to the field of organisational design and the performance of change management initiatives. An example of the feedback reviewed from the case studies is listed in 7.4.2.

7.4.1 Model Usage Evaluation

In terms of usage, the process and structure of the model performed very well. The Lime Survey platform for online surveys (and the inputting of the telephone and face to face interview data) was stable, easy and intuitive to use. Data storage was adequate, with the retrieval and exporting of stored data achieved with no problems. The user interface was adequately explained during the briefings and no respondents reported any system issues.

The questions used in the survey had been validated and tested extensively prior to the advent of the case studies, including the use of a convenience sample, however there were still uncertainties around the use of language (as the case studies covered several varied geographies, including the USA and India) and the adequacy / application of the pre-survey briefing. As with all the research and fieldwork undertaken for this thesis, an action research framework was applied, which meant that processes were constantly tested, reflected upon and reviewed. This worked well for the case studies, where points that required clarification during the first case study were adapted into the briefing for the subsequent case studies, making the whole process more effective (and transparent) as it went on. Changes were made to the briefing, but not to the questions themselves, to ensure consistency with all three case studies. The changes made centred around ensuring certain concepts were thoroughly explained, and choices in language were clarified or expanded on, mainly for the benefit of those for whom English was not a first language.

During the periods of reflection between case studies, no changes were made to either the questions themselves, or their structure. As noted, changes were made in the briefing to help achieve clarity only. This choice was made to ensure that the results from all three case studies were comparable, and to reduce the effects of any other unknown variables.

In total, 365 participants were invited to take part in the case studies, of which 284 completed their respective actions. This gives an overall completion rate of 78%. Looking at the completion rates across each part of the case study, it's clear that the leadership discussions had the highest completion rate of 95%, which may suggest the level of buy-in from the senior leaders within each organisation and their motivations. The lowest completion rate, 63%, related to the face to face and telephone interviews. The reason for this is likely to have been around scheduling – the online surveys could be completed at any time, at the respondent's leisure. Telephone and face to face interviews required schedules and time zones to be aligned, and this turned into an administrative impossibility in certain cases. A possible link to the position of the respondents within the organisation may have also contributed to the differing response rates - as has already been noted, the change efforts within an organisation are usually driven and championed by the senior managers within an organisation, so this case study may have received a higher

priority for those at this level, as priorities of both the management and researcher were aligned. For employees lower down within an organisation, they may be suffering from change fatigue – they have lived through several change cycles or management programmes that have been applied inefficiently and inconsistently, as orders received from ‘on high’. These have always failed to be aligned to their daily priorities, so the case study itself may have been a lower priority than tangible, day to day tasks.

7.4.2 Output Evaluation

As the structure of the model itself and the methods of obtaining and logging information have proved to be successful, the focus now turns to the output of the model. Having a viable, working model is a good start, but if the output is unworkable, delivers no insight or is just plain wrong in the eyes of senior management within an organisation, all will be for naught.

In order to properly evaluate the output of the model, three factors needed to be incorporated;

- Impact on the Organisation – this includes direct and indirect impacts. What learnings were uncovered? What aspects of the Output are correct? What may be incorrect? Are areas of conflict and contradiction across business units, geographies and management levels uncovered? Does the resultant output generate a viable and coherent journey map for the organisation?
- Impact on the Research – what worked? What didn’t? How did the characteristics and metaphors perform? How well was the output understood? What, if anything, needs to be changed to make the output clearer and more appropriate?
- Impact on the Researcher – what assumptions and biases have been challenged? What learnings are there? In which areas (if any) has knowledge been increased? What reflection needs to take place?

The purpose of this analysis in the context of this thesis was to ensure that the model output was firstly very transparent to the organisation, secondly, to ensure that the proposed model was fit for purpose (and if not, determine why not, and what adjustments could and should be made), and finally, critical to the research project and important to the thinking and learning of the author.

As part of the action research process, during these discussions with the senior leadership teams the full lists of all characteristics were shared with participants. The purpose of this was to ensure full transparency with regard to the characteristics that had been chosen, and why they had been chosen. It also acted as a discussion point about the inclusion / exclusion of certain characteristics, the reasoning behind the inclusion / exclusion, and offered opportunities for feedback both on the selection process, and the final shortlisting and inclusion of categories. Some of the feedback received was:

Climate

The climate of the business is not ready to change in the manner desired. We must address the climate first before we start change

Culture

When people aren't achieving what they should be achieving and things aren't going the way they should be — and if senior managers can't pin the blame on some specific issue — they often declare: "We have to change the culture around here." We need to understand if our culture is an enabler or constraint on change

Decision making

"We are not good at implementing the decision we make. We need greater awareness of how decisions are made and why they are not implemented. The gap that often exists between what executives say and how they behave helps create barriers to openness and trust, to the effective search for alternatives, to innovation, and to flexibility in the organization. These barriers are more destructive in important decision-making meetings than in routine meetings, and they upset effective managers more than ineffective ones."

Capability

"Response time to change in the market is good. We have the ability to sense what is coming up in the market. There are certain pockets where it is done very well and certain pockets where not so well. In the last 3 years we have been hugely strategic and changed direction, being very sharply focused and defined."

Disruption

"Certain areas/pockets are able to respond strategically to disruption, but other areas may not be so invested and thinking strategically."

Energy

“In all the companies that I have been with, I don’t think I have ever worked for a leadership team that have as much energy as the [Company] leadership.”

Output

“The core Board have certain criteria on how they want to grow the business but doesn’t get connected with the operations at ground level.”

Agility

“We react quickly and are nimble. We have the ability to change.”

“The organisation does not want to go out and make things happen unless there is an opportunistic way to do it. Opportunistic meaning, we are often 12 months behind.”

Health

“Even though sporadic progress was being made, the top leaders’ claims of the need for change were not enough. No agreed-on process existed for translating broad objectives into specific, focused performance goals at functional, plant, or machine-operation level. Nor did managers have the skills to define these goals in a way that would engage their people in finding new ways to improve performance—not once, but continually. Though the new training programs were useful, they had no vital or clear-cut connection to the primary levers of performance improvement. We must understand the health of the business and its ability to enable or disable programmes of change.”

Emotional

“Understanding the core emotional drivers that engage our employees is the key to achieving a high-performance culture. It is only when we can make the emotional connection with employees that we are able to shift from having satisfied employees to engaged employees and we see a measurable increase in productivity, profit, and sales.”

The output from this analysis framed the development of the new 5x5x5 model as the author used action-based observations, learning and additional review to adapt this model to incorporate any additional information.

7.4.2.1 Impact on the Organisation

The case studies helped to achieve a greater understanding of the current status of organisations in relation to the 5x5x5 model, across the key characteristics, energy characteristics and the structural metaphors. The way that the data was collected and displayed enabled analysis of the gaps and contradictions within the data, both

between the 'as is' and 'to be' outputs, as well as differences in perception between geographic regions, business units, and between employees and senior leadership.

The organisations were faced with direct insights as to the current thinking within their organisation, and the levels of understanding, engagement and potential capability for different segments. In all three case studies, leaders were surprised by the divergence of views, especially between the responses from employees to those of senior leaders. Many of the contradictions within the case studies centred around the structural metaphors, with senior leaders viewing their respective organisations as being strategic or even transformational. Employee feedback contrasted with this, with perceptions that the characteristics in question were closer to fragmented or siloed. These contradictions provided valuable discussion and insights with the senior leadership team, some of whom had previously not considered this type of measure within individual components of their organisation within previous change efforts.

To measure the impact of the output of the model, the key characteristics, energy attributes and structural metaphors were discussed as part of the model itself, but also individually, to ascertain their value, strengths and weaknesses.

7.4.2.1.1 Key Characteristic Discussion

The key characteristics measured in the model include: strategy and vision, change and innovation, resources and leadership, output and value and processes and systems. The general consensus within the senior leaderships from all three organisations involved with the case studies were that these were all logical and important characteristics within their organisations, although there was some discussion around the groupings, and why certain characteristics (for example Resources and Leadership) were bundled together, and not dealt with as separate characteristics.

The main issue brought up across all three case studies was the leadership's belief that the aspects of culture (and to a lesser extent climate), and execution (paired with decision making in the key characteristic definitions) were lacking.

With regard to culture, one of the group noted,

"The climate of the business is not conducive to change in the manner desired. We must address the climate first, before we can start to change",

And,

“...when people aren't achieving what they should be achieving and things aren't going the way they should be — and if senior managers can't pin the blame on some specific issue — they often declare, 'We have to change the culture around here'. We need to understand if our culture is an enabler or constraint on change”

With regard to decision making and execution, there was a felt to be a clear schism within the characteristic. Leaders believed that their organisations and employees were capable, and often demonstrated clear decision-making abilities – often at a strategic and sometimes transformational level. However, the ability to execute once a decision had been made was a different story. Here, organisations felt that they performed poorly, often failing to follow through or act decisively. This can be seen as telling with regards to their previous experiences of failed change management initiatives. One leader stated,

“We're not good at implementing the decisions we make. We need greater awareness of how decisions are made, and then why they are not implemented.”

The group felt that the gap that often exists between what executives say and how they then behave – this perceived failure to execute – helps create barriers to openness and trust, to the effective search for alternatives, to innovation, and to flexibility in the organisation.

7.4.2.1.2 Energy Attributes Discussion

The energy attributes included within the model are: agility, output, capability, disruption and energy. Again, the leaders discussed these and felt that the five measured characteristics were important to their organisation and the propagation of effective change, but they felt that they did not go far enough. Comments included:

“Response time to change in the market is good. We have the ability to sense what is coming up in the market. There are certain pockets where it is done very well and certain pockets where not so well.” (Capability)

“Certain areas / pockets are able to respond strategically to disruption, but other areas may not be so invested and thinking strategically” (Disruption / Structure)

The energy attributes that the leaders felt were missing were in the areas of health and emotion. When discussing health within their organisations, leaders felt that even though sporadic progress was being made, their own claims of the need for change were not enough. No agreement on processes existed for translating broad objectives into specific, focused performance goals at functional operational levels. Nor did managers have the skills to define these goals in a way that would engage their people in finding new ways to improve performance—not just once, but continually. Though the new training programmes were useful, they had no vital or clear-cut connection to the primary levers of performance improvement and change implementation.

Whilst the author had assumed that these aspects were covered within the five energy attributes housed within the new model, the leaders disagreed. Leaders viewed the health of their organisation as an attribute all of its own – not as a dimension of the existing attributes. Reflecting back to the idea of the organisation as the human body, the leaders viewed their health as an essential, innate characteristic, not a sum of all the remaining parts. They believed that leaders must understand the health of the organisation, as this is vital to its ability to enable or disable programmes of change.

A similar situation to this is that of the emotional characteristic. Again, the leaders viewed this as a separate characteristic, not a dimension of existing characteristics. To the leaders, understanding the core emotional drivers that engage their employees is the key to achieving a high-performance culture. It is only when they can make the emotional connection with employees that they are able to shift from having merely satisfied employees to engaged employees. From numerous employee engagement surveys (and widespread research and literature), leaders see engaged employees leading to a measurable increase in productivity, profit, and sales.

7.4.2.1.3 Structural Metaphor Discussion

The discussion with the leaders around the structural metaphors within the model took a different form than that of previous discussions around characteristics. While the leaders grasped the idea of structural metaphors easily and welcomed the opportunity to apply them to the constituent parts of the organisation, and not the organisation as a whole as has been traditional, they struggled with the non-linear concept. They felt that fragmented was at the negative end of a scale, with transformational being the aspirational, positive end of the scale. This issue had been addressed in the briefing

to all participants, along with the definitions, but the leaders felt this needed further emphasis and / or explanation.

The structural metaphors within the model included; fragmented, siloed, managed, strategic and transformational. Overall, the leaders agreed that these adequately covered and represented the constituent parts of their organisations. The measurements provided were felt to be accurate, both in terms of the current 'as is' state, and the future 'to be' states of their respective organisations.

7.4.2.2 Impact on the Research

The impact of the case studies on the research both confirmed and challenged the author's thinking. Confirmed in the fact that the structure of the model itself worked – inputs led to outputs, the model was easy to use and administer and actionable insights were delivered. However, the author's thinking was challenged as feedback indicated that the model itself did not go far enough in terms of the key characteristics or the energy attributes. These characteristics needed to be expanded upon to deliver the flexibility required within the case study organisations, and to meet the needs of those who would use such a tool in their day to day roles.

By providing the total list of key characteristics, energy attributes and structural metaphors to the leadership teams during the feedback discussions, this process had been managed (however unintentionally), as the discussion expansion of the characteristics was conducted within the bounds of the list of the established characteristics. For the key characteristics, the feedback recommended the inclusion of two extra characteristics; climate and culture, and decision making and execution.

These additions to the key characteristics change the dimensions of the model to 7x5x5, however further recommendations of additional characteristics were received as part of the feedback sessions. These additional characteristics were health and emotional and are located within the energy attributes of the model.

With the additions of these characteristics to the energy attributes, the shape of the model is now 7x7x5. At this point, the author drew upon his practitioner experience and field work and was faced with a decision regarding the structure of the model. As noted and explored within Model Creation, there is precedence for a cube type model within organisational design and change management, but little reference to any other

three-dimensional orthotopes. When reflecting upon the model outputs with this in mind, the author noted that it would appear that there was a tendency for respondents to aggregate their responses, resulting in relatively narrow groupings within the structural metaphors. By expanding this section to 7 it would not only maintain the cube shape of the model, but it would provide a greater response range, with finer detail / granularity for outputs. Following the process set out in the literature, two additional structural metaphors were selected (after consultation and discussion with the advisory group) and the machine and optimising characteristics were added.

Key Characteristics	Energy Attributes	Structural Metaphors
<i>Critically Internal</i>	<i>Outside Influence on Value</i>	<i>The parts that make up the whole</i>
Strategy and Vision	Agility	Transformational
Change and Innovation	Output	Strategic
Resources and Leadership	Capability	Managed
Output and Value	Disruption	Siloed
Processes and Systems	Energy	Fragmented
Climate and Culture	Health	Machine
Decision Making and Execution	Emotion	Optimising

Table 17: Proposed Structure of the 7x7x7 Model (Author's own work)

7.4.2.3 Impact on the Researcher

The feedback discussions proved to be very valuable for the author and led to the uncovering of an assumption the author had unconsciously made regarding climate and culture. Due to the author's extensive practitioner experience and field work, climate and culture of an organisation was intrinsic to his approach – the root or base of every organisational characteristic (regardless of whether or not it was included within the new model). In practice, what became apparent was that while this innate aspect of every characteristic was clear to the author, it was not clear to the wider population. Those without the same levels of experience and knowledge could not clearly see the threads of climate and culture through the base, energy and structural characteristics of the new model, and needed them to be more clearly signposted – both for their own journey, and the journeys of their organisations.

The case studies forced the author to become a more reflective practitioner. In the author's day to day practice, there has been little or no opportunity or time to reflect on activities. This research project allowed the author to step out of that world and to observe, reflect and learn without a hard, imposed timetable or deadline to achieve. This space to reflect allowed the move from the 5x5x5 model to the concept of the 7x7x7 model – without the time built in for reflection and the action learning approach, the output of this research may just have been a model that filled a gap, but was unable

to truly grow, flex, or keep up with the ever-increasing speed of change in organisations.

The author perceived this research as a collaborative venture – a collaboration between himself as a practitioner in change management and organisational development, and himself as a student of change and the existing literature. This allowed him the opportunity of applying his experience and learnings from the past 30 years to the existing literature. Without the constraints of a client, project timeline or deadline, the author was able to simultaneously step back from practice, while stepping into research. This change in perspective changed and challenged a number of thinking paradigms.

7.5 Summary

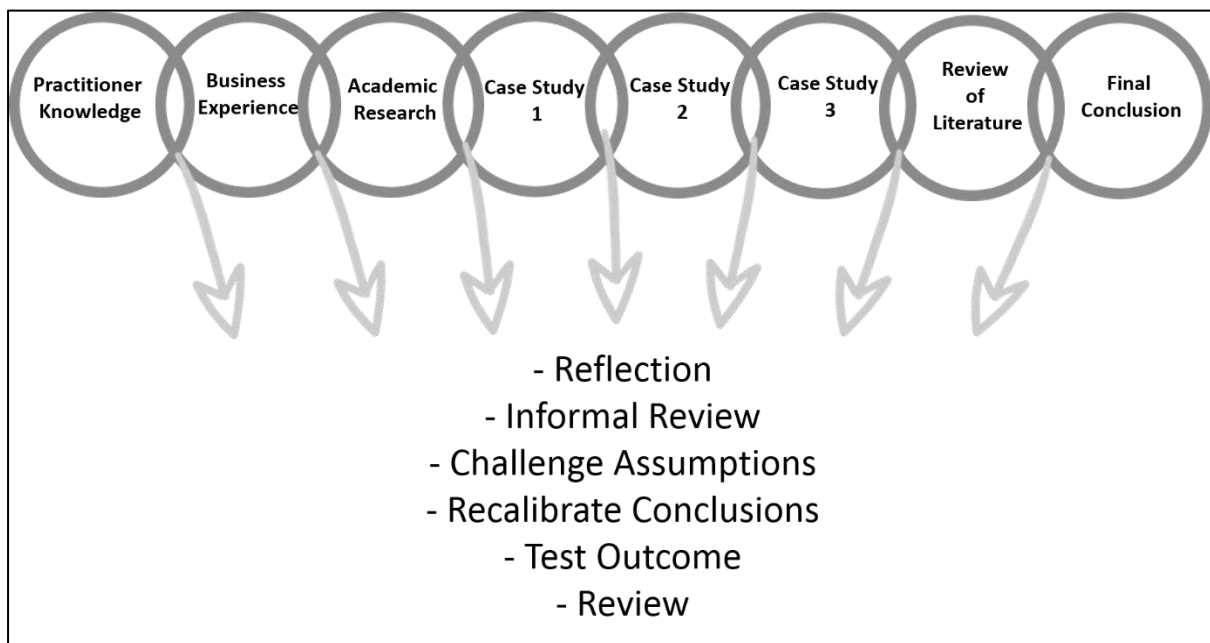
One of the main learnings for the author during this whole process, but especially during the case studies is that knowing the answer is not the same as explaining the answer. In some situations, experience and knowledge are worthless unless they can be transformed into a viable output, action plan or step forward.

By choosing to use an action-based research methodology, the author was able to build upon his extensive knowledge of change and transformation and create something new. The journey the author took, taking the literature review outputs of metaphors, characteristics, comparisons and using them to design, build and test a new business model was not an easy one, and is truly the road less travelled. The output of this phase of the process is a 5x5x5 dynamic model that captures an organisation change capability in a new and refreshing, but not exhaustive, way.

The simplicity of the output was very evident with the respective case studies by how quickly participants responded to the assessment and the comprehension of the results. Being able to represent the path from an organisation's current status to a future desired position through action-based activities was central to the process, and led to the development of the design of the final, 7x7x7 model. It was obvious that there was significant further opportunity to research several new strands of thought in the future.

The congruence of the action-based research approach with this research derives from the endless possibilities of combining models with this methodology. The systems

concepts then moved into the 'real world' where culture, problems and actions are considered. The user of this methodology is urged to oscillate between the real world and the systems thinking boundary. In Figure 57, Action Based Research through Reflection, Unlearning, and Learning, the process followed throughout the study is captured and summarised. The research is a process of gathering data, interpreting that data, using the knowledge to inform and recalibrate thinking, address any assumptions or biases, and move forward to the next review in the process. The learning, unlearning and learning process allows for objective analysis and significant reviews.



Action Based Research through Reflection, Unlearning, and Learning

Figure 57: Action Based Research (Author's own work)

At the start of journey of research into change and transformation, the author felt that it was important to clarify his personal role in the programme of research, particularly as he relied heavily on a number of platforms to gather and validate the data. His role included:

- Research drawn from academic sources, common corporate language and existing commercial diagnostic models.
- A capture-all approach including all variants and niche concepts in underlying research.

- Insider experience to apply existing knowledge acquired over 30 years in HR organisational development practices in global companies around the world.
- Again, as an insider, taking learnings from 30 years of working with experts in change models such as 7S, VSM, Booz Allen Hamilton and TRIZ, as well as others in the implementation of their models in large corporate organisations such as Nortel Networks, HP, Manpower, Genpact, NHS etc.
- As a second-tier implementer of change programmes within the organisations of numerous clients of the Global Blackswan change consultancy.
- As a third-tier observer in managing a bench of over 500 change and transformation experts as they implemented change models and programmes within a variety of large organisations.
- From the development with others of major consultancy tools which are based upon McKinsey's 7S (1980), Beer's VSM model (1972), TRIZ (1946) and Game Theory.
- The examination of outputs used in these transformation tools.
- Third party exhaustive research from a multitude of experts providing the most extensive foundations upon which to build an organisational code on the market.

The notion of space between insider and outsider is one that was dealt with by adopting a dualistic approach. The author appreciated that it is simplistic to lock into a notion of either/or, one or the other. Differences cannot be conceived as absolutes and consequently the relation between them is not one of utter antagonism (Fay, 1996). Although a researcher's knowledge is always based on their personality (Mullings, 1999), as a qualitative researcher, the author feels they have the required appreciation for the fluidity and multi-layered complexity of the topic under review. Holding membership of one group did not make the author the same or different, and he remained focused on validation and ethical standards throughout. The author believes the research is richer not because of the challenges, but despite them.

7.6 Reflective Learning

In reflection, both during and after the case study process, the learnings were very positive on the measures the author included, the framework used to explore the measures of characteristics, productivity and maturity. The learnings for the author were that the model needed to be more explicit about certain aspects, such as climate and culture, decision making and execution, health and emotion. In addition, by expanding the structural metaphors to include machine and optimising, the outputs would also be more explicit.

Throughout the research project, the concept of the IFR (Ideal Final Result) was used. The Ideal Final Result is defined in The TRIZ Journal as one of the tools used during the problem definition phase of TRIZ (Theory of Inventive Problem Solving). It describes a solution to a problem free of any mechanisms or constraints from the original problem or issue. This is similar to “re-engineering” in the process management world, in which processes are “blown-up” and revamped - an ideal end-state without any strings attached to the current issue faced. The IFR is a solution to a well-defined problem with the benefits this result delivers. The IFR sets the stage for the continued use of TRIZ tools by focusing on well-defined problems with a clear visualisation of the ideal result. The primary benefit of the IFR is its problem-solving attributes. The IFR encourages “outside of the box thinking”, by removing real or perceived barriers while offering alternative solution paths. The IFR does this by starting with perfection, disconnecting any limitations associated with current issues. This way of thinking allows for breakthrough solutions by discouraging settling for less than ideal solutions.

To be able to define the current state of the organisation status ‘as is’, and the desired future state ‘to be’, was an important factor during the development of this research question. The case study components were designed to seek out data on any areas of contradiction or conflict. During the model development these contradictions were sought out to identify what was desirable or feasible to achieve within different parts of the organisation.

During model development, feedback was collated between the different responders and a clear visual map was developed which facilitated examination by leaders of the organisation to identify target action areas which would have impact.

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8.0 Conclusions and Future Work

As organisations attempt to respond effectively to the increasing pace of change, they face a growing imperative to adapt more quickly. The author's personal experience and ongoing field work shows that to survive relentless market disruptions ignited by the digital economy, established companies in every industry sector will have to massively disrupt their own cultures and employees and this will result in a rapidly increasing need for innovation.

In Steve Jobs' words "Innovation distinguishes between a leader and a follower" (Woo, 2014). In today's environment it is all about innovate or die, and in the author's view, the reason that most organisations are bad at innovation is that they are bad at change. Peter F. Drucker says,

"The entrepreneur upsets and disorganizes . . . his task is 'creative disruption.'"

(Drucker, 2010)

While managers are busy relentlessly communicating about the change imperative, the challenge they face is that the design of many organisations slants the playing field toward controllability, stability, process management, risk-avoidance, zero-tolerance for error, or deference to authority and a willingness to extend the past into the future. The result obtained in many change programmes and change actions can be friction, fatigue, and cynicism. For many employees it's something that has been tried, failed and tried again. John Kotter published "Leading Change" (Kotter, 1995), his seminal work in the field of change management in 1995. His research revealed that only 30 percent of change programmes succeed. A McKinsey survey of more than 3,000 executives around the world in 2010 (McKinsey, 2010), found that only one transformation in three succeeds. So, the key point is – more than 70% of large "change programmes" fail. The idea of change as continuous reality (Weick and Quinn, 1999; Tsoukas and Chia, 2002) is becoming more prevalent and yet change is still often experienced by practitioners as disruptive or complex and related to resistance, loss of security and fear of uncertainty.

If we push change onto an organisation that is built for stability or is not ready to accept that change, the culture will kill it off quickly. Pushing harder won't do the trick. If, instead, change readiness is high, or we can help the organisation to understand where and how to change, the chances of success are higher. However, organisational design and change are complex. Many organisational redesigns fail because they are 'top down' strategies, or are reduced to an exercise to cut costs. Others face resistance from company leadership. Others simply do not understand what it takes to change, or have their own inbuilt immunities to change. Faced with changing markets and increased competition, more and more companies are struggling to re-establish their dominance, regain market share, and in some cases, ensure their survival. Many have come to understand that the key to competitive success is to transform the way they function. They are seeking out new ways to transform. Companies are moving away from the hierarchical and bureaucratic model of organisations that has characterised corporations from the industrial revolution until now. As organisations seek to evolve the constant immunity to achieving the change they seek is a framework that allows them to understand the change journey better. As Weick (Weick, 2000) suggests, planned change efforts often get the credit in decision makers' eyes for successes in delivering new strategies for survival, but they rarely change the organisation's underlying nature and problems usually recur.

Planned change has been found to be most suitable when there is an anticipated need for structural changes. Structural changes alone however, are not sufficient to guarantee organisational learning or the sustainability of change efforts. While planned change efforts often focus on diminishing the restrictive environmental forces, emergent change efforts focus on identifying the enabling forces and enhancing them. As Stacey (Stacey and Nandhakumar, 2005) suggests, most organisations these days operate at the 'edge of chaos and far-from-equilibrium' with instability and stability intertwined and difficult to separate. As natural systems, leaders need to be able to see, track, and effect change in real time, and disequilibrium is a necessary condition for the growth of dynamic systems. So, the ability to create a culture of continuous change in an organisation will lead to competitive advantage and greater organisational agility. For the companies that rise to the challenge, the payoff will be significant in terms of financial performance, productivity, employee engagement, with significant other benefits.

In order to assist organisations with continuous change and to build a model that allows them to operate at the 'edge of chaos and far-from-equilibrium' with instability and stability intertwined and difficult to separate, the author sought out the answers through this research. This research has shown that peeling back the layers and re-visiting original sources, rather than relying upon existing models, can inspire new thinking (Alcadipani & Cooke, 2013; Cummings & Bridgman, 2011). This research and the author's experience and knowledge allowed him to be more 'retro-active' and think differently for the future of organisation change. The author's challenge was to find a question that could answer the organisation change problem. The author on this research journey asked and answered two key questions that were supported by four research sub-questions through an action-based research process that went right to heart of the question of continuous change. The two key questions that would allow organisations to operate at the 'edge of chaos and far-from-equilibrium' if answered were:

1. Can you identify the key characteristics and their inter-relationships that determine the nature, behaviour, and performance of business organisations?
2. Is there a model of these characteristics and their inter-relationships which can be used to support change management and performance improvement in business organisations?

These two key questions were supported by four research sub-questions to be answered:

1. Is it possible to define a set of key characteristics and their inter-relationships which determine the nature, behaviour, and performance of business organisations?
2. Can these be collated into a cohesive and dynamic framework which can be used by organisations to support them in change management and performance improvement?
3. Through second tier application, can the framework continuously survey the whole change programme whilst expertly transforming the parts?
4. Can such a framework be tested and validated in real business conditions?

The positive answers to the questions came from the detailed research carried out by the author between 2013 and 2018. The author interrogated the key dimensions of organisational change through an examination of the business models, metaphors and characteristics that define organisations. The 7x7x7 model developed as a result of this research effectively locks together all the output from this investigation. The new model created in this research is based on significant analysis of the change literature, together with many of the current change models and the author's experience of 30 years in the change business. The analysis first established the identification of 23 key metaphors.

"All theories of organisation and management are based on implicit images or metaphors that persuade us to see, understand, and imagine situations in partial ways."

(Morgan, 1986)

In examining the 23 metaphors, multiple change models, and three significant case studies, the author established 88 key characteristics (a distinguishing trait, quality, or property of the organisation) that are the key dimensions of any organisation. The analysis of their independence and the inter-relationships of these metaphors, models and characteristics established a 5x5x5 model, then a 7x7x7 model of characteristics, bases, energy measures and structure levels that can be used to track changes in real time. The research established that the inter-relationships of these characteristics, bases, energy measures and structural levels can further be used to support change management and performance improvement in business organisations. The author used an interactive process to build a model. The first model was a simplified picture of what the author thought was reality following the literature review and taking into an account his knowledge view of the research topic.

The goal for this thesis was to construct a framework for measuring organisational changes in real time. The author designed the model in three interconnected phases: Key Characteristics, Energy Attributes, and Structure.

The outcome of this research addresses the lack of completeness in the models of change that the author examined. The definition of the key measures of change through

the characteristics examined and their inter-relationship established (as described in Appendices 1-5) allows organisations to identify and track the key levels of change. This new knowledge demonstrates that it is possible to define a set of key characteristics and their inter-relationships which determine the nature, behaviour, and performance of business organisations. The research and diagnostics showed these factors can then be collated into a cohesive and dynamic model that has been tested and validated in real business conditions through significant case studies which can be used by organisations to support change management and performance improvement. The very detailed research demonstrated that it is possible to identify the key characteristics that determine the nature, behaviour, and performance of business organisations and their inter-relationships which can be used to support change management and performance improvement in business organisations.

What was fascinating in the exploration of the topic was the amount of other key insights that was established. The research used by the author focused on:

- The Critical Characteristics
- The Energy Attributes
- The Structure Metaphors

This work formed the basis of the 7x7x7 model that was validated in the case studies outlined. In the process of the research other areas were identified that needed to be explored and could form the basis of further research as the author continues to explore the topic. The overarching research concluded that there were 8 pillars that need to be applied to comprehensively track organisations. In this research, as stated, three were selected. The 8 pillars together with the supporting characteristics or attributes that were identified are listed.

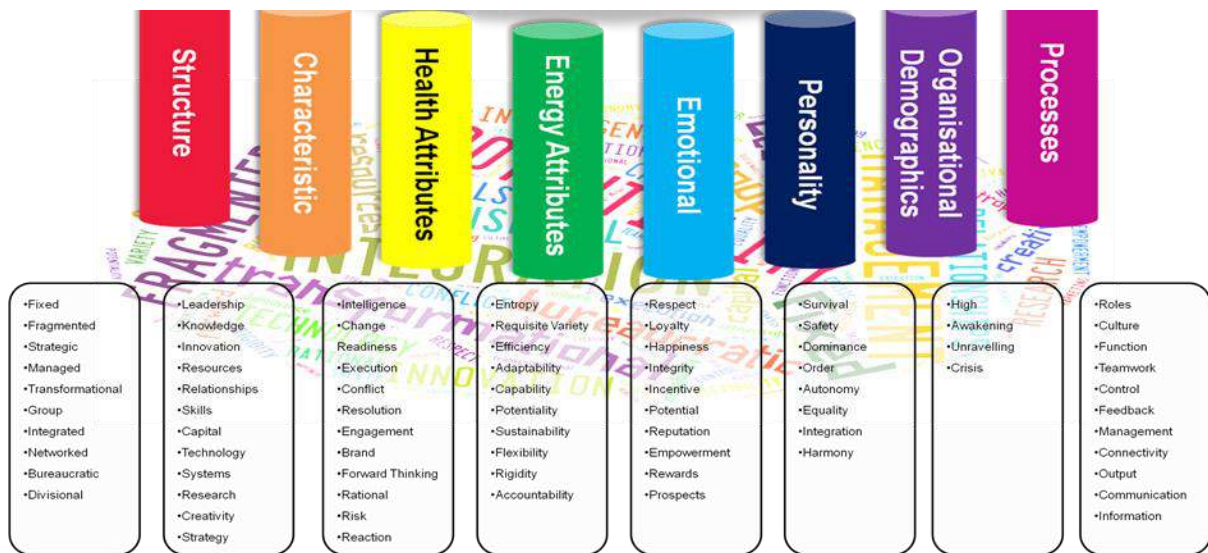


Figure 58: The 8 Platforms for the future (Author's own work)

It is the tension between continuity and change and how it is represented that future research will aim to explore. The future basis of the analysis for this will be the organisational transformation model as seen in Table 18.

Field	Measured against
Structure (Metaphor)	Fixed, Fragmented, Strategic, Managed, Transformational, Networked, Integrated, Bureaucratic, Optimising, Machine
Characteristic	Leadership, Strategy, Systems, Resources, Innovation, Process Knowledge, Vision, Change, Output, Value
Health Attributes	Shared Values, Co-ordination, Change Readiness, Conflict Resolution, Requisite Variety, Customer Relations, Regulation, Learning, Engagement, Opportunity, Challenge
Energy Attributes	Capability, Potentiality, Actuality, Accountability, Sustainability, Flexibility, Agility, Output, Disruption, Emotional
Emotional	Respect, Loyalty, Happiness, Integrity, Incentive, Potential, Reputation, Empowerment, Rewards, Prospects
Personality	Survival, Safety, Dominance, Order, Autonomy, Equality, Integration, Harmony
Organisational Demographics	High, Awakening, Unravelling, Crisis

Table 18: Fields of The New Model's Creation (Author's own work)

The goal of the ongoing project is to build a four-dimensional model with which the author can visually define an organisation, identify its elements, and which of those elements effects the capacity for change. Also, the model should indicate how to facilitate change and transformation with a visual representation of where the organisation wants to be following on from that change and transformation. Figure 59 gives a schematic picture of how this will be achieved.

Example Output (Pre-Visualisation)

Selected Fields:

- Leadership
- Knowledge
- Innovation

- Structure
- Health Attributes
- Emotional
- Organisational Demographics
- Characteristic
- Energy Attributes
- Personality

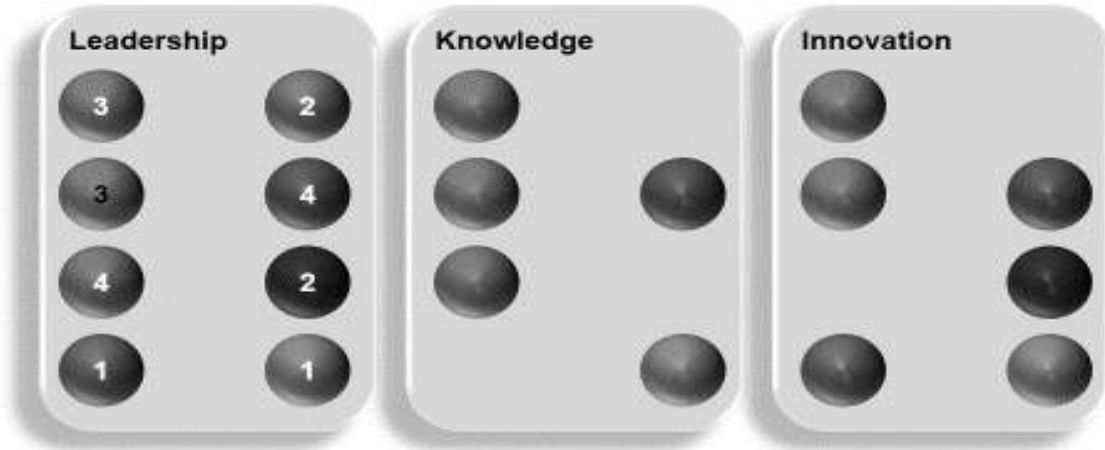


Figure 59: Outputs for "The New Model" (Author's own work)

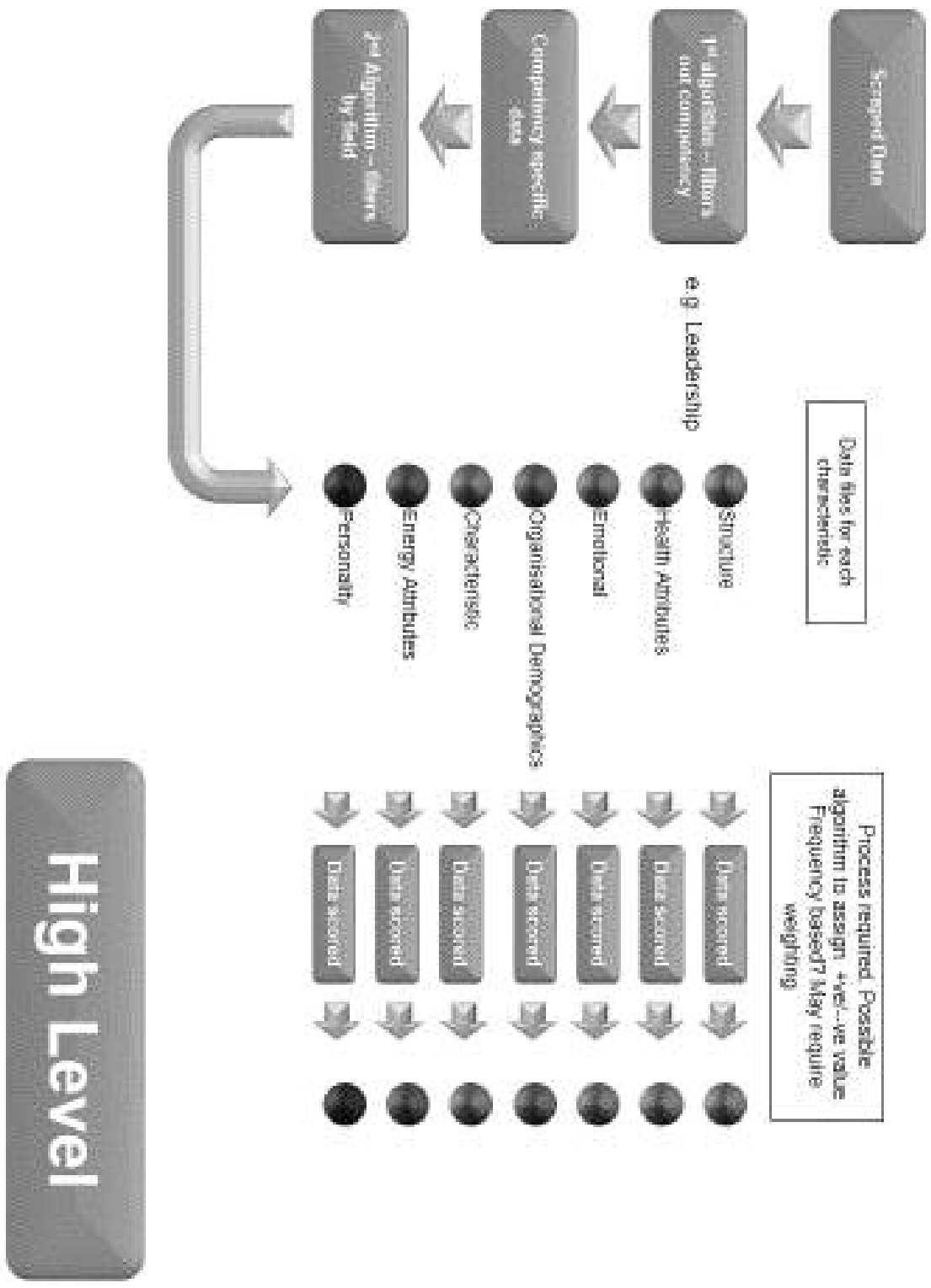


Figure 60: High Level Process of "The New Model" (Author's own work)

Figure 59 shows a high-level map of “The New Model”, which will be interactive and run across multiple levels showing not only an overall view of an organisation but also the various links and relationships between certain key characteristics. The model must not only be of a visually simplistic level to facilitate understanding and quick reference, but must also contain a deeper, more complex level showing the intricate inner workings of an organisation along with all of its characteristics. It will be supported by substantial research, data collection and analysis, and also be capable of assisting in the transformation of an organisation.

An automated engine will be designed to collect data to be able to do the following three things:

- Select characteristics that are applicable to a specific organisation
- Score each characteristic based upon whether it can be found in an organisation
- ‘Scrape’ public information for new organisational metaphors and characteristics.

Current approaches to change and transformation focus on learning, engagement and continuous improvement. However, there are no current methods that measure the dynamic nature of change and its variances across characteristics on a constant basis. The static nature of diagnostic tools currently being used by organisations means that change management is too dependent on performing interval validations and making corrections with no certainty that the correction is keeping the trajectory in the right direction. Many companies acknowledge that the mindset of the ‘millennials’ means that companies need to adapt their processes to include change and remote access to information.

Change is getting harder, many executive teams are scattered across continents, and a single team can span six different time zones. The days when everyone could sit around a table, roll up their sleeves and get something done are a distant memory.

Even though it is difficult to identify any consensus regarding a framework for organisational change management, there seems to be agreement on two important issues. Firstly, it is agreed that the pace of change has never been greater than in the current business environment (Kotter, 1995; Moran and Brightman, 2000; Luecke,

2003; Burnes, 2004; Carnall, 2007), and secondly, there is a consensus that change, being triggered by internal or external factors, comes in all shapes, forms and sizes (Balogun & Hailey, 2008; Burnes, 2004; Carnall, 2007; Kotter, 1995), and, therefore, affects all organisations in all industries. The challenge this poses is that whilst there are numerous models that address organisational performance at a moment in time, none of them capture what happens within the model as the change occurs.

The early approaches and theories to organisational change management suggested that organisations could not be effective or improve performance if they were constantly changing (Rieley and Clarkson, 2001). It was argued that people need routines to be effective and able to improve performance (Luecke, 2003). However, it is now argued that it is of vital importance to organisations that people are able to undergo continuous change (Burnes, 2004; Rieley & Clarkson, 2001).

While Luecke (Luecke, 2003) suggests that a state of continuous change can become a routine in its own right, Leifer (Leifer, 1989) perceives change as a normal and natural response to internal and environmental conditions. Organisational leaders now are facing change that is unprecedented in terms of type, quantity, speed, span/reach, cause, world-wide communication and implications, time available to address changes and expectations for performance results.

Also, they must simultaneously think and make decisions about future change, some of which is long term and some of which is immediate (Cummings & Worley, 2009; Greenwood & Hinings, 1996). Planning for the long term and the short term is not unique. What is unique is that organisations must now simultaneously plan for the short term which often means immediate responses in 15 minutes instead of weeks or months and into the future. This also requires much more planning for contingencies. Otherwise, change happens to organisations instead of organisations being on the forefront of change.

To conclude this section, it has been shown that the organisational model developed for “The New Model” should be based on 7 Key Characteristics which have been rigorously researched and analysed. Their inclusion is backed up by the well-established work of other academics and practitioners in organisational change and

transformation and will provide “The New Model” with a sound basis from which to operate.

In terms of action-based thinking, the research observations and outcomes will form the basis of ongoing deep research into building a future that captures organisational change in a four-dimensional model in real time.

Change is a dynamic consequence of market forces which are increasing in velocity and demand. This places a huge requirement on organisational change experts to respond in a much more enabled way that has a technology platform that is aligned to operating platforms that are in social use.

Many organisational leaders still put their heads together to decide their organisation’s future course based on a combination of static factors based upon historical performance with, hopefully, a competitor analysis to make future-based decisions. This is just not good enough. We might as well gaze into the crystal ball, hold our head between our legs and hope we land safely.

Much of the work the author has been working on in trends concerns repeatable patterns of discontinuous change. Data is mined to anticipate behaviour, patterns and trends. While many change organisations are helping businesses to streamline their incremental change programmes, there are very few predictive trends analyses available these days that enable business leaders to analyse business-related data and foresee market trends, opportunities and challenges.

“The New Model” is about finding the smart insights for an organisation. The current market is witnessing an unprecedented shift in business intelligence (BI), largely because of technological innovation and increasing business needs. The latest shift in the BI market is the move from traditional analytics to predictive analytics. Although predictive analytics belongs to the BI family, it is emerging as a distinct new software sector. Analytical tools enable greater transparency, and can find and analyse past and present trends, as well as the hidden nature of data. However, past and present insight and trend information are not enough to be competitive in today’s world and meet service consumer needs. Organisations need to know more about the future, and in particular, about future trends, patterns, and service consumer and organisational behaviour in order to understand their market better. To meet this

demand, the author has been working on developing predictive analytics to forecast future trends in organisational behaviour, consumer trends, patient needs, demographic population thinking, customer behaviour, buying patterns, and who is coming into and leaving any market and why.

Given the complexity and volatility in the marketplace, businesses need a proven method with which to manage their results in an increasing need for spatial data mining. “The New Model” will present new algorithms for spatial characterisation and future spatial trend analysis. Historically, good search programmes build keyword models that capture organisational characteristics in a very linear fashion. “The New Model” is backed by good models and intelligent search automation, which will give organisations the power to:

1. Forecast performance for different organisational constraints and goals
2. Forecast performance for different consumer constraints and goals

The synergy of models, automation, and optimisation enable organisations to run reviews predictably without compromising performance. Achieving success and daily organisation goals in a volatile market can be accomplished with the right balance of the complex interplay of science and technology.

The author is now developing an algorithmic programme as part of “The New Model”, which will enable organisations to search all of their external and internal environment and instantly get information that’s relevant to their different organisational constraints and goals. This is a critical first step towards building the next generation of search engines that tap into the collective intelligence of the public domain and can tell organisations more than they know about themselves. “The New Model” predictive analytics employs both a microscopic and telescopic view of data allowing organisations to see and analyse the minute details of a business, and to peer into the future. Traditional BI tools cannot accomplish this functionality.

Traditional BI tools work with the assumptions one creates, and then will find if the statistical patterns match those assumptions.

Predictive analytics go beyond those assumptions, to discover previously unknown data, then look for patterns and associations anywhere and everywhere between

seemingly disparate information. The future of data mining lies in predictive analytics. However, the terms data mining and data extraction are often confused with each other in the market. Data mining is more than data extraction. It is the extraction of hidden predictive information. Data mining, also known as knowledge-discovery in databases, is the practice of automatically searching large stores of data for patterns. To do this, data mining uses computational techniques from statistics and pattern recognition. On the other hand, data extraction is the process of pulling data from one data source and loading them into a targeted database; for example, pulling data from a source or legacy system and loading data into a standard database or data warehouse. Thus, the critical difference between the two is data mining looks for patterns in data.

The development of the next iteration of new model will be built by data mining tools and techniques. Data mining tools extract data by accessing massive databases, then process the data with advance algorithms to find hidden patterns and predictive information. Though there is an obvious connection between statistics and data mining because methodologies used in data mining have originated in fields other than statistics. Data mining sits at the common borders of several domains, including database management, artificial intelligence, machine learning, pattern recognition, and data visualisation. Common data mining techniques include artificial neural networks, decision trees, genetic algorithms, nearest neighbour method, and rule induction.

The author has been working with a global team of trend analysts constantly assessing change in consumer trends, organisation competency population thinking, general economic shifts and society trends. Not just the major shifts in human behaviour and habits, but the quirks, the innovations, the contrary and the cool. Known and unknown consumers of an organisation's services do not operate in isolation. And neither do the consumer trends analysts. They work collaboratively to make the connections between the disparate trends they see. Then they work with industry experts to pinpoint their implications for the markets that matter.

"The New Model" is integrated across all of developed data platforms, so it is easy to understand how consumer trends impact a particular market, category or region. Every

consumer trend, every employee consideration identified is backed by robust data and comes with clear insights into its origins, its meaning and its future possibilities.

There is no observation without implication. The further development of the New Model aims to intelligently predict what a user wants to know when searching for information about their business their life or their future.

8.1 Limitations of research

The conclusions from the literature review and case studies identified 7 critical bases, strands and levels that were at the core of implementing transformation. In the process of the research other areas were identified that needed to be explored and could form the basis of further research as the author continues to explore the topic. The overarching research concluded that there were 8 pillars that need to be applied to comprehensively track organisations in any major transformation programme.

Characteristics

Structure

Health

Energy

Personality

Emotional

Demographics

Process

The research completed in this action-based methodology focused on the key characteristics, structure, processes, energy, emotional, health and demographics. However, the ability to measure all of these pillars and attributes remained the key strategic driver of the author. The technology solution framed limited the capability of the researcher to achieve this goal as the true output would be to measure the individuals and the organisation as it responded to change. There is only so far within the research where change can be tracked organisationally and then the irrationality of human behaviour needs to be considered. The research completed demonstrated that whilst significant work has been carried out to understand organisational change,

little of it can be tracked in real time and the dynamic nature of organisational change is so intense the question is can it really be measured in real-time.

This research allows for the critical bases, strands and levels to be captured but it does not address the personality attributes of the organisation across such attributes as survival, safety, dominance, order, autonomy, equality, integration, harmony. Further the external view represented by the Energy strands are limited to known trends and insights, and a significant gap is the known unknowns and the unknown unknowns. The external market is interfacing with organisations more rapidly than before and the demands to respond have never been greater. The demand for understanding external trends and insights have never been greater. The development by the author in 2017 of a new set of measures allows now for greater external market analytics, through the use of sophisticated algorithms which will address some of these limitations in time.

8.2 Reflective Learning

In the end, this journey must not be an end in itself but a new beginning that comes from the authors beginning's end. The closure of this thesis leaves one feeling unfulfilled, as there is so much more to learn, so much more to add, so much more to reflect on. In the interactions with supervisors, the author has learnt he must seek closure on the questions asked. However, this is just a chapter in the story he wants to tell.

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Appendices

Appendix 1: List of Metaphors

<u>Metaphor</u>	<u>Key Thinkers</u>	<u>Source/ Key Point</u>
Organism	Gareth Morgan D A Morand Lawrence & Lorsch	Images of Organisation ISBN: 1-4129-3979-8 “A fluid system of talented individuals who are to perform various tasks” Organic v Stable
Brain	Gareth Morgan Chris Agyris	Images of Organisation ISBN: 1-4129-3979-8 Double-loop learning
Cybernetic	Stafford Beer Warren McCulloch Organisation Orientation Group	Cybersyn Project A Logical Calculus of Ideas Immanent in Nervous Activity A Cybernetic Model of Organisations Connecting Organisation and Culture Theory
Human	Umberto Maturana Francisco Varela	Autopoesis and Cognition Tree of Knowledge
Machine	Gareth Morgan A L Suchman Dr Nick Barter	Images of Organisation ISBN: 1-4129-3979-8 “detailed blueprints for desired changes but unrealistic expectations of control” Machine metaphor dehumanises the human element of an organisation
Viable System	Stafford Beer Raul Espejo	Original VSM model Cybersyn Project and subsequent papers
TRIZ-Type	Altschuller Darrell Mann	Original TRIZ Theory
Product-Driven	Bill Barrett Kurt Salmon Paul Rogers & Marcia Blenko (Bain)	Market-driven organisations Consumer-driven product development The decision-driven organisation

<u>Metaphor</u>	<u>Key Thinkers</u>	<u>Source/ Key Point</u>
Service- Driven	Margo Visitacion & Phil Murphy Feargal Quinn L A Schnelsinger	Forrester Research Paper (profession services) Managing Service Quality The service-driven company
Event- Driven	Microsoft Oracle	Appears to be mainly software companies who have published anything to do with event-driven organisations as software is configured to respond.
Functional	Dana Griffin Mike Pennington	http://smallbusiness.chron.com/functional-organizational-structure-advantages-3721.html Organisational Structures: An Explanation
Divisional	Mike Pennington Jonathan Murphy	Organisational Structures: An Explanation Organisational Theory & Design
Matrix	Mike Pennington	Organisational Structures: An Explanation
Strategic	J T Mahoney Gregory Kesler & Amy Kates Jay Galbraith	Strategic Organisation Designing Strategic Organisations Star Model
Distributed	SonicWall (White Paper) Bas Testernik	Protecting and Connecting the Distributed Organization Norms in Distributed Organisations
7S	Robert Waterman Tom Peters	Original Model In Search of Excellence
Diversified	Jack Welch John Matsusake Henry Mintzberg	Strategy for GE Corporate Diversification, Value Maximisation and Organizational Capabilities The Rise and Fall of Strategic Planning

<u>Metaphor</u>	<u>Key Thinkers</u>	<u>Source/ Key Point</u>
Heirarchical	Roy Payne & Roger Mansfield Daniel Katz	Relationships of Perceptions of Organisational Climate Social Influences on organisational structure (The Social Psychology of Organisations)
Flat	KBR Case Study R Carzo	http://businesscasestudies.co.uk/kbr/roles-and-responsibilities-within-an-organisational-structure/hierarchy-flat-and-matrix-structures.html#axzz2YetjySSc Effects of Flat and Tall Organisation Structure
Innovative	Henry Mintzberg David Aaker Booz & Hamilton	Future of organisations rejects planning and strategy in favour of flexibility 3 components to be innovative: selective creation, resource allocation & dynamic strategy Innovation's OrgDNA
Political	Gareth Morgan Roger Delves	Images of Organisation ISBN: 1-4129-3979-8 Organisations always have political nature as there are always hidden individual agendas
Transformational	Dr Sarah Nixon David Miller	Transformation is vital to any organisation needing to adapt to an environment Changefirst
Entrepreneurial	Robert G Cooper	Modelling entrepreneurship in the right way for the right product.
Cultural	Gareth Morgan Emile Durkheim	Images of Organisation ISBN: 1-4129-3979-8 Social values can degrade and conflict
Learning	Peter Senge	Senge 5 Theory
Industrial	Jean Tirole D. J. Teece	The Theory of Industrial Organisation Firm organisation, Industrial structure and technological innovation

<u>Metaphor</u>	<u>Key Thinkers</u>	<u>Source/ Key Point</u>
Institutional	Myer & Rowan Alastair Hughes, Kyla Moore & Nimesh Kataria	Institutionalized Organisations: Formal Structures as Myth Reshaping public sector organisations for an age of austerity
Brokerage	David Mosse & David Lewis	Theoretical Approaches to Brokerage and Translation in Development
Franchise	Steven C Michael Vinay Garg, Abdul Rasheed & Richard Priem Jack Pearce Stafford Beer	The effect of organisational form on quality Explaining franchisor's choices of organisation within a franchise structure Effective development of a franchise support organisation VSM
Focussed	Robert Kaplan David P Norton	The Strategy-focussed Organisation
Bricks and Clicks	Serge Timacheff & Douglass Rand Randall Stross Leslie Willcocks & Robert Plant	From Bricks to Clicks Netflix is beating Blockbuster with Clicks not Bricks Pathways to E-business leadership: Getting from Bricks to Clicks
Virtual	Frederick Taylor Henry Ford	Principles of Scientific Management Ford Mass Production System
Community/ non-profit	Jay Mancini, Gary Bowen & James Martin	Social organisation allows us to understand relationships and interactions

<u>Metaphor</u>	<u>Key Thinkers</u>	<u>Source/ Key Point</u>
Socio-economic System	Max Weber	The Theory of Social and Economic Organization Economy and Society
Socio-technical System	Eric Trist Fred Emery	The Evolution of socio-technical systems

Appendix 2: Link between Metaphors and Characteristics

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Organism	<ul style="list-style-type: none"> • Roles • Leadership • Power • Groups • Culture • Entropy • Structure • Function • Integration • Differentiation • Requisite Variety • Adaptability • Strategy • Innovation • Agility • Disruption 	<p>Open communication, adaptable and flexible. Significant degree of unpredictability but due to freedom of employees, internal environment can reach a degree of consistency.</p>
Brain	<ul style="list-style-type: none"> • Creative and logical side • Feedback • Direction over command • Connectivity • Response/ Feedback • Output • Strategy • Output • Innovation • Disruption • Agility 	<p>Two sides- creative and logical. No central point of control, it is enfolded onto itself</p>

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Cybernetic	<ul style="list-style-type: none"> • Connectivity • Communication • Information • Reaction/ Adaptation • Management • Decision-making • Strategy • Output • Innovation 	Various subsystems encased in the external environment. All subsystems have communications in the form of feedback loops.
Human	<p>Management Communication Output Processes Structure Entropy Creativity Knowledge</p> <p>Strategy</p> <p>Innovation</p> <p>Leadership</p> <p>Capability</p> <p>Disruption</p> <p>Agility</p>	management is the brain and organisation is the remainder of the body; nervous control; feedback results in adaptation; fosters internal environment

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Machine	<ul style="list-style-type: none"> • Processes • Efficiency • Output • Engineering (Strategy) • Image/ Brand • Interactions • Strategy • Leadership • Capability 	Engineers in complete control. Activity done by mechanical forces that respond without question to engineers' specifications and direction.
Viable System	<ul style="list-style-type: none"> • Co-ordination • Implementation • Control • Intelligence • Policy • Strategy • Agility • Disruption • Process 	Similar to Chilean government with managers able to view all variables on a computer system, make decisions and then that system executes decisions.

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
TRIZ-Type	<ul style="list-style-type: none"> • Knowledge • Innovation • Adaptability • Management • Communication • Structure • Strategy • Leadership • Agility • Disruption 	ongoing research into organisation landscape; feedback loops; decision making based upon feedback
Product-Driven	<ul style="list-style-type: none"> • Product • Process • Customer Satisfaction • Resources • Marketing • Strategy • Leadership • Agility 	dominated by management and research; Simplistic; management, research, manufacture; Talented researchers and strategic decision makers

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Service- Driven	<ul style="list-style-type: none"> • Reputation • Customer Relations • Brand • Output Value • Training • Strategy • Leadership • Agility • Disruption 	ongoing market research; development of product or evaluation of service; customer-facing; high levels of training
Event- Driven	<ul style="list-style-type: none"> • Decision-making processes • Change readiness • Adaptability • Communication • Execution • Research • Strategy • Output • Leadership • Agility 	Organisation must monitor the landscape in which desired events occur. This means information-gathering is central to success. Streamlined communication and decision-making processes.

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Functional	<ul style="list-style-type: none"> • Departments • Resources • Hierarchy • Decision-making • Processes • Strategy • Agility • Disruption 	Departmental in nature with every department having an assigned role. Geared towards high efficiency and certainty of role.
Divisional	<ul style="list-style-type: none"> • Divisions • Output • Communication • Adaptability • Resources • Management • Strategy • Agility • Output • Energy 	various departments each with specific tasks and goals

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Matrix	<ul style="list-style-type: none"> • Product • Function • Communication • Conflict resolution • Decision-making • Strategy • Output • Agility • Innovation 	product leaders and function leaders, balance of power is usually even; high levels of communication and cooperation; advanced conflict-resolution
Strategic	<p>Strategy Capabilities Structure People Rewards Processes</p> <p>Strategy</p> <p>Innovation</p> <p>Leadership</p>	Strategy defined at the start and restricts management to decisions in line with that strategy. Structure can take any form beyond this.
Distributed	<p>Contractors</p> <p>Internal Compilation Management Knowledge Suppliers</p> <p>Leadership</p> <p>Output</p> <p>Agility</p>	Very little internal management needed as no work is done in-house. Must have means of exercising external control where possible. Low staff-bases and low overheads.

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
7S	<ul style="list-style-type: none"> • Shared Values • Staff • Strategy • Skills • Structure • Systems • Style • Agility • Leadership • Output 	management focussed; elements are mutually reinforcing; adaptable
Diversified	<p>Sister-companies</p> <p>Management</p> <p>Risk</p> <p>Sustainability</p> <p>Capability</p> <p>Productivity</p> <p>Leadership</p> <p>Output</p> <p>Disruption</p>	One corporate head (parent) in control of various subsidiaries all with very different business interests. Each subsidiary has its own management structure due to the very different activities they carry out.

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Hierarchical	<ul style="list-style-type: none"> • Leadership • Decision-making • Structure • Processes • Communication • Strategy • Output • Capability 	all changes come from the top down; one-dimensional; clear leadership structure
Flat	<ul style="list-style-type: none"> • Culture • Communication • Vision • Innovation • Strategy • Capability • Leadership • Disruption 	organisation is entirely on one level where all employees exert equal management powers; all decisions made jointly

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Innovative	<ul style="list-style-type: none"> • Creativity • Leadership • Entrepreneurship • Adaptable • Functional • Multi-functional • Academic • Innovation • Culture • Strategy • Disruption • Output • Agility 	Margin/gap for current refinement in an organisation. Balance and compromise must adhere to the values of the structure. Must avoid 'over-innovation'.
Political	<p>Leadership Processes Management Culture Relationships Communication</p> <p>Strategy</p> <p>Disruption</p> <p>Agility</p> <p>Energy</p>	Typical hierarchical system with levels of authority and communication between decision-makers. Can take various political forms (democracy, dictatorship etc.)

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Transformational	<ul style="list-style-type: none"> • Innovative • Creativity • Forward thinking • Rational • Management • Strategic flexibility • Communication • Engagement • Leadership • Strategy • Leadership • Capability • Output 	Leadership and a strong model for change make processes such as transformational leadership and communication can run smoothly; Sustained personal performance via factors like strategic and realistic thinking.
Entrepreneurial	<ul style="list-style-type: none"> • Values • Management culture • Leadership • innovation • Market driven • Consistency • Strategy • Leadership • Output • Disruption 	Organic, must be fertile in order to grow and prosper; Almost analogous to organism (needs the right variants to grow); Can be aligned to business models (Salama)

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Cultural	<ul style="list-style-type: none"> • Culture • Energy • Values/ Brand • Connectivity • Strategy • Emotional • Energy 	Various in communication- leaders innovate; Communication is outstanding; Behaviour and language are key to trending culture
Learning	<ul style="list-style-type: none"> • Teamwork • Learning • Vision • Self-motivation • Knowledge • Strategy • Leadership • Output • Energy 	Highly communicated and base risen; Structural element relies heavily on systems thinking; Focus stressed on openness in an organisation (5 factors); Focuses on team learning and management assessment
Industrial	<ul style="list-style-type: none"> • Structures • Prospects • Innovation • Technology • Culture & Learning • Values • Knowledge • Leadership 	Adaptive; Relies on communication to engage; Organization structure; Formal and informal structural systems; Game theory inclined (adopts variations)

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Institutional	<ul style="list-style-type: none"> • Open systems model • 7-S application • SWOT • Risk management Matrix • Institutional capabilities (David Wilson) • Output 	<p>SWOT based elements; Economic, social and political intervention; Growth based (new doors are opened, pathways created); Strategic and institutional environment- growth; Culture orientated- new ideas and language</p>
Brokerage	<ul style="list-style-type: none"> • Capital, capital and more capital! • Communication • Analysis • Socio-economic • Politically influenced • Regulation • Legality • Disruption 	<p>top-down; decisions made by top management; actions passed down through management to workforce</p>
Franchise	<ul style="list-style-type: none"> • Flexibility & Agility • Procedures • Strategy • Control • Leadership • Output • Agility • Energy 	<p>Instant adaptation to the environment; Communication is spread out evenly; each department controls their own area of expertise</p>

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Focussed	<ul style="list-style-type: none"> • Values/ Brand • Structural • Empowerment • Culture • Strategy • Feedback • Output • Energy • Disruption • Leadership 	Degree of openness and creativity; Meticulous in its field (management and organisation); Ideas and innovation are fluid; Integration(s) are integral to any business
Bricks and Clicks	<ul style="list-style-type: none"> • Communication • Flexible • Innovative • Technological and creative • Leadership • Strategy • Agility 	Many adopt a 'Waitrose/JLP' method of business. Online and offline strategies increase revenue; Emphasis is structured on a B2C scale

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Virtual	<ul style="list-style-type: none"> • E-commerce • Power in the market • Domination • Marketing • Culture • Resources • Legality and regulations • Research • Adaptability • Consistency • Agility • Output • Energy 	<p>Hierarchical structure- bottom up, top down; Traditional and forward thinking ; Rational and agile; Structure can be entirely 'virtual' or traditional; flat</p>
Community/ non-profit	<ul style="list-style-type: none"> • Power (both local and social) • Cultural • Adaptive • Persuasive • Networked (close ties to businesses and industries) • Connectivity • Leadership • Output • Agility 	<p>Close knit infrastructure; Communication is rigid and observant; No hierarchal element, chairman based (committee)</p>

<u>Metaphor</u>	<u>Characteristics</u>	<u>Structure</u>
Socio-economic System	<ul style="list-style-type: none"> • Leadership • Charisma • Management • Regulation • Communication • Vision • Structure • Agility • Disruption 	Social interaction (internal and external); Policy led; Knowledge based (tacit)
Socio-technical System	<ul style="list-style-type: none"> • Processes • Products • Communication • Research/ Knowledge • Bureaucracy • Structure • Strategy Management 	Motivationally structured; Precision (militarisation of tactics); Communication is spread out evenly; Affects commercial awareness; Task and work analysis based

Appendix 3: Characteristics and Key Thinkers

Characteristics	Key Thinkers
Roles	Stafford Beer
Leadership	Steven Covey
Groups	Catholijn M. Jonker Jan Treur Carlo Altomonte Armando Rungi
Culture	Edgar H Schein
Entropy	Carlos Escobar Prigigone and Stengers
Structure	Mintzberg Maslow
Function	Keith Leslie Mark.A.Loch William Schaninger
Integration	David Taylor
Differentiation	Chris Fill Barbara Jamieson
Requisite variety	Paul Daugherty W. Ross Ashby
Adaptability	Martin Reeves Mike Deimler Bhushan Sethi Christy Eayrs Rory Melick
Control	SAGE Prof Dr. Stefan Ivanko Francesca Gino and Gary Pisano
Creativity	Jennifer M George
Logical	Bill McKelvey

Characteristics	Key Thinkers
Feedback	A. la Grange D.J. Geldenhuys
Direction	Paul Olk Peter Rainsford Tsungting Chung
Management	Andrew Sturdy Christopher Grey
Connectivity	Andrea J. Cullen Margaret Webster
Output	David Alman
Communication	Leanne Mills Shirley Anne Fortina
Information	Peng F
Knowledge	Hjørland, Birger
Reaction	Oracle
Decision-making	Dr. Nicos Sykianakis
Processes	Graeme Shanks Nargiza Bekmamedov Robert Johnston
Efficiency	John A. Lanier
Strategy	Thomas G. Cummings Christopher G. Worley Professor Robert Dailey
Image	Oracle
Brand	
Interactions	Erik W. Larson David H. Gobeli

Characteristics	Key Thinkers
Coordination	Amy Kates Paul J. Erickson Maurice Yolles Paul, Iles
Implementation	Raimo Hyötyläinen Oracle
Intelligence	Kurt Schlegel Rita L. Sallam Daniel Yuen Joao Tapadinhas
Policy	Kevin Chekov Feeney
Innovation	Booz Allen and Hamilton PWC
Customer satisfaction	Education Scotland ORACLE
Marketing	Janis Diekmann Oliver Som
Resources	Dr. Seung Hoon Jang
Reputation	Craig E. Carroll PhD Craig R. Scott
Customer-relations	Maike Wellenbrock
Training	Peter Senge
Change-readiness	Alannah E. Rafferty
Execution	Dr. Daniel Pantaleo Nirmal Pal
Research	David Mallon Janet Clarey Mark Vickers Jay Rao Joseph Weintraub

Characteristics	Key Thinkers
Departments	Thomas G. Cummings Christopher G. Worley
Divisions	Erik W. Larson David H. Gobeli Amy Kates Paul J. Erickson
Conflict resolution	Michele J. Gelfand Kirsten Keller Carsten de Dreu Frank Cotaе Halia Valladares Montemayor
Capability	Valerie Shanahan Prof. Thomas Garavan Dr. Ronan Carbery
Potential	Peter Senge G. Tomas M. Hult Jeff Scott VP/ Business & Technology Strategy
Actuality	Axum Management
Quality	SAS PWC
Suppliers	Dr Dawei Lu
Incentive	Leni Wild Victoria Chambers Maia King Dan Harris
Rewards	Nicolai J. Foss Diego Stea
Shared values	Robert Waterman Tom Peters Lowell Bryan

Characteristics	Key Thinkers
Staff	Lul Admasachew Jeremy Dawson
Systems	Raimo Hyötyläinen
Skills	Professor Robert Dailey
Risk	Simon Ashby Tommaso Palermo Michael Power
Sustainability	Lydenberg Dr. Tima Bansal
Productivity	CISCO (Hiroyuki Irie)
Entrepreneurship	Ylonda D. Glover Benedictine P. Dacin, T. Matear, M.
Forward-thinking	Dr Jonathan Trevor Richard Hill
Rational	IBM
Engagement	Various
Flexibility	various
Rigidity	G. Tomas M. Hult
Market-pressures	OECD
Teamwork	Laird Mealiea
Technology	Rick M.A. Hollen Frans A.J. Van Den Bosch Henk W. Volberda
Learning	Peter Senge
SWOT	
Accountability	Mckinsey Quarterly

Characteristics	Key Thinkers
Capital	Nicholas Berente Sawyer and Jarrahi
Analysis	EVELYN FOX KELLER
Legal	Gary Connor Michael McFadden
Regulation	HM Treasury
Relationships	Erik W. Larson David H. Gobeli
Empowerment	Hamidreza Asgarsani Omid Duostdar Amin Gohar Rostami M Alvesson S Sveningsson
Consistency	Jeffrey M. Saltzman
Power (Internal)	Mehrzaad Abdollahzadeh
Power (External)	David F. Larcker Brian Tayan
Persuasion	Alexander V. Hirsch Dr. Math de Vaan en Prof. Dr. Willem Burggraaf
Network	Popp, J. MacKean, G. Casebeer, A. Milward, H. B. Lindstrom, R. Louise Knight
Cybernetics	The Saylor Foundation
Bureaucracy	William F West Paul A. Grout
SWOT	Alan Clardy

Characteristics	Key Thinkers
Prospects	Margaret Meyer Paul Milgrom John Roberts

Appendix 4: High Level Characteristics

Full list of Key Characteristics

Characteristics	Found in Model/Theory	Total
Strategy	Balance, 7S, TDNA, VSM, GT	5
Systems	DSP, 7S, TRIZ, TDNA, VSM	5
Structure	Org DNA, 7S, TRIZ, VSM	4
Process	Balance, TRIZ, TDNA, VSM	4
Resources	DSP, TRIZ, TDNA, VSM	4
Skills	Hall. 7S, TRIZ, TDNA	4
Knowledge	TRIZ, TDNA, VSM	3
Innovation	TRIZ, TDNA, VSM	3
Shared Values	7S, TDNA, VSM	3
Relationships	TDNA, GT, VSM	3
Staff	7S, TRIZ, VSM	3
Leadership	TDNA, VSM	2
Culture	7S, TRIZ,	2
Entropy	TDNA, VSM	2
Adaptability	TDNA, VSM	2
Creativity	Hamel, DSP	2
Feedback	balance, VSM	2
Management	DSP, VSM	2
Connectivity	Org DNA, VSM	2
Communication	OrgDNA, VSM	2
Information	OrgDNA, VSM	2
Decision-making	OrgDNA, VSM	2
Efficiency	DSP, VSM	2
Co-ordination	TRIZ, VSM	2
Change-readiness	TDNA, VSM	2
Conflict resolution	TDNA, VSM	2
Capability	TDNA, VSM	2
Regulation	VSM, GT	2
Capital	Balance, TDNA	2
Structure	VSM	1
Integration	DSP	1
Sustainability	VSM	1
Differentiation	TDNA	1
Requisite Variety	VSM	1
Control	VSM	1
Direction	VSM	1
Output	OrgDNA	1

Characteristics	Found in Model/Theory	Total
Customer satisfaction	balance	1
Customer relations	balance	1
Potential	VSM	1
Actuality	VSM	1
Incentive	OrgDNA,	1
Flexibility	TDNA	1
Market pressure	TDNA	1
Learning	Senge	1
Accountability	VSM	1
Power	VSM	1

Appendix 5: Characteristic Links

Characteristics	Links	Number of Links
Roles	Links to structure, function, decision-making, policy, shared values, accountability, power (I), bureaucracy, systems	9
Leadership	Links to culture, structure, learning, capability, management, process, direction, strategy, output, policy, reputation, change readiness, conflict resolution, shared values, accountability, incentive, skills, power (I&E), relationships, bureaucracy, risk, reaction, innovation	24
Groups	Links to structure, legal, bureaucracy, network, learning, teamwork	6
Culture	Links to leadership, structure, co-ordination, reputation, output, shared values, relationships, risk, capital, reaction	10
Entropy	Links to system, efficiency, control, structure, output, requisite variety	6
Structure	Links to processes, management, decision making, co-ordination, roles, leadership, groups, culture, entropy, function, integration, differentiation, requisite variety, adaptability, control, feedback, communication, efficiency, intelligence, change readiness, output, incentive, engagement, accountability, analysis, control, relationships, power (I&E), network, bureaucracy, prospects, learning, capital, systems, divisions, legal, innovation	37
Function	Links to co-ordination, roles, structure, connectivity, teamwork, bureaucracy	6
Integration	Links to structure, co-ordination, connectivity,	3

Characteristics	Links	Number of Links
Differentiation	Links to strategy, structure, knowledge, communication, innovation, marketing, customer relations, change-readiness, learning, flexibility,	10
Requisite variety	Links to system, structure, regulation, control, entropy,	5
Adaptability	Links to structure, co-ordination, connectivity, flexibility, rigidity, learning	6
Control	Links to strategy, structure, management, output, entropy, requisite variety, sustainability, regulation, incentive, risk	10
Creativity	Links to systems, learning, logic, innovation, marketing, skills	6
Logical	Links to process, learning, creativity	3
Feedback	Links to structure, learning, management, connectivity, innovation	5
Direction	Links to strategy, leadership, shared values, resources,	4
Management	Links to systems, structure, resource, leadership, communication, regulation, control, feedback, process, strategy, co-ordination, implementation, policy, marketing, change readiness, conflict resolution, potential, actuality, quality, supply chain, teamwork, relationships, network, bureaucracy, reaction, power (I), innovation	27
Connectivity	Links to information, systems, function, supply chain, integration, adaptability, feedback, communication, efficiency, co-ordination, engagement, consistency, network, learning	14

Characteristics	Links	Number of Links
Output	Links to process, systems, control, efficiency, entropy, management, information, customer satisfaction, marketing, productivity, engagement, analysis, innovation, strategy, structure, culture, resource, skill, staff, capability, leadership, shared value, decision making, policy,	24
Communication	Links to structure, strategy, management, network, connectivity, staff, process, technology, differentiation, information, learning, policy, engagement, teamwork, relationships, consistency, skills	17
Information	Links to communication, technology, connectivity, output, knowledge, decision making, conflict resolution, supply chain, incentive, image, learning, innovation	12
Knowledge	Links to information, systems, learning, decision making, analysis, differentiation, intelligence, conflict resolution, capability, power (E), innovation	11
Decision-making	Links to information, analysis, output, power (I&E), roles, structure, knowledge, strategy, co-ordination, policy, resources, conflict resolution, potential, shared values, teamwork, accountability, regulation, consistency, bureaucracy, risk, innovation	21
Process	Links to structure, capability, resource, management, strategy, skill, leadership, logic, output, communication, efficiency, co-ordination, marketing, output, potential, quality, sustainability, productivity, engagement, teamwork, consistency, bureaucracy, capital, technology, divisions, legal, innovation	27

Characteristics	Links	Number of Links
Efficiency	Links to connectivity, networks, process, structure, output, resource, entropy, sustainability, productivity, analysis	10
Strategy	Links to decision making, shared vision, leadership, process, management, systems, differentiation, control, direction, communication, co-ordination, intelligence, resources, change readiness, output, conflict resolution, capability, incentive, learning, analysis, innovation	21
Co-ordination	Links to culture, strategy, structure, process, connectivity, network, system, management, decision making, analysis, function, integration, adaptability, risk	14
Intelligence	Links to knowledge, learning, communication, network, technology, strategy, structure, marketing, change readiness, innovation	10
Policy	Links to management, leadership, roles, decision making, communication, network, implementation, customer satisfaction, resources, change readiness, accountability, innovation	12
Innovation	Links to leadership, creativity, process, quality, decision making, capability, differentiation, technology, learning, intelligence, knowledge, feedback, management, output, information, process, strategy, policy, structure,	19
Customer satisfaction	Links to output, customer relation, marketing, policy,	4

Characteristics	Links	Number of Links
Marketing	Links to management, process, creativity, shared value, intelligence, output, reputation, analysis, differentiation, customer satisfaction, output, sustainability, relationships, brand, image	15
Resources	Links to capital, staff, skills, management, decision making, strategy, policy, direction, process, efficiency, output, capability, potential, actuality, incentive, sustainability, engagement, flexibility, rigidity, market pressure, learning, brand	22
Reputation	Links to customer relations, leadership, shared vision, culture, marketing,	5
Customer-relations	Links to customer satisfaction, supply chain, differentiation, reputation, market pressure, brand, image	7
Change-readiness	Links to shared value, management, policy, strategy, structure, learning, intelligence, flexibility, leadership, differentiation, reaction	11
Conflict resolution	Links to information, knowledge, management, decision making, leadership, strategy,	6
Capability	Links to resources, staff, skills, knowledge, strategy, systems, leadership, process, potential, actuality, quality, rigidity, analysis, innovation	14
Potential	Links to capability, resource, staff, process, decision making, management	6
Actuality	Links to management, capability, resource,	3
Quality	Links to management, capability, systems, process, innovation	5

Characteristics	Links	Number of Links
Supply Chain	links to management, information, technology, connectivity, customer relations	5
Incentive	Links to capital, structure, resource, staff, system, strategy, leadership, control, information, power (I)	10
Shared values	Links to culture, leadership, roles, decision making, direction, strategy, output, marketing, reputation, change readiness, learning	11
Sustainability	Links to process, systems, control, efficiency, capital, resource, marketing	7
Productivity	Links to efficiency, process, output,	3
Engagement	Links to connectivity, communication, process, structure, output, resource, teamwork	7
Flexibility	Links to adaptability, change-readiness, market pressure, resource, capital, differentiation	6
Rigidity	Links to adaptability, capability, resource,	3
Market-pressures	Links to capital, resource, staff, customer relations, flexibility	5
Teamwork	Links to management, decision making, communication, function, process, system, engagement, learning, groups	9
Learning	Links to resource, staff, skill, knowledge, shared values, strategy, analysis, leadership, creativity, logic, feedback, intelligence, change readiness, analysis, learning, capital, innovation, information, structure, teamwork, groups, connectivity, network, adaptability, differentiation	25

Characteristics	Links	Number of Links
Accountability	Links to leadership, policy, decision making, structure, roles,	5
Analysis	Links to systems, capability, efficiency, output, relationships, structure, technology, learning, strategy, knowledge, decision making, co-ordination, marketing, learning	14
Regulation	Links to requisite variety, control, decision making, management, systems, structure,	6
Relationships	links to marketing, power, leadership, structure, communication, management, culture, analysis, systems	9
Consistency	Links to connectivity, communication, network, decision making, process,	5
Power (Internal)	Links to incentive, leadership, roles, structure, decision making, relationships, divisions, management	8
Power (External)	Links to leadership, structure, knowledge, relationships	4
Network	Links to connectivity, management, systems, structure, groups, communication, efficiency, co-ordination, intelligence, policy, consistency, learning	12
Bureaucracy	Links to roles, function, management, structure, process, decision making, leadership, groups, legal	9
Brand	Links to marketing, product, perception, customer relations, staff, capital, resource	7
Image	Links to marketing, customer relations, information,	3
Skills	Links to communication, technology, leadership, creativity, learning, process, resource, capability	8

Characteristics	Links	Number of Links
Risk	Links to performance, strategy, decision making, culture, co-ordination, control, leadership	7
Capital	Links to culture, structure, learning, process, resource, incentive, sustainability, flexibility, market pressure, brand	10
Technology	Links to innovation, process, systems, communication, information, intelligence, supply chain, analysis, skills	9
Systems	Links to structures, relationship, roles, entropy, requisite variety, creativity, management, connectivity, output, knowledge, strategy, co-ordination, capability, quality, incentive, sustainability, analysis, teamwork, network, control, risk, technology	22
Reaction	Links to change readiness, culture, management, leadership	4
Divisions	Links to structure, power, process	3
Legal	Links to structure, process, bureaucracy, groups	4
Staff	Links to communication, capital, output, capability, potential, incentive, market pressure, learning, brand	9

Appendix 6: Full List of Characteristics with Number of Reference Links

CHARACTERISTICS	Number of Links
Structure	37
Management	27
Process	27
Learning	25
Leadership	24
Output	24
Decision-making	22
Resources	22
Systems	22
Strategy	21
Innovation	19
Communication	17
Marketing	15
Capability	14
Connectivity	14
Co-ordination	14
Analysis	14
Information	12
Policy	12
Network	12
Knowledge	11
Change-readiness	11
Shared values	11
Culture	10
Differentiation	10
Control	10
Efficiency	10
Intelligence	10

CHARACTERISTICS	Number of Links
Incentive	10
Capital	10
Roles	9
Teamwork	9
Relationships	9
Bureaucracy	9
Technology	9
Staff	9
Power (Internal)	8
Skills	8
Customer-relations	7
Sustainability	7
Engagement	7
Brand	7
Risk	7
Groups	6
Entropy	6
Function	6
Adaptability	6
Creativity	6
Conflict resolution	6
Potential	6
Flexibility	6
Regulation	6
Requisite variety	5
Feedback	5
Reputation	5
Quality	5
Supply Chain	5
Market-pressures	5

CHARACTERISTICS	Number of Links
Accountability	5
Consistency	5
Direction	4
Customer satisfaction	4
Power (External)	4
Reaction	4
Legal	4
Integration	3
Logical	3
Actuality	3
Productivity	3
Rigidity	3
Image	3
Divisions	3

Appendix 7: Characteristics in Literature

Total in Literature	Characteristics	Mapped against Top 10 Links	Field	Key Characteristics	Processes	Health Attributes	Energy Attributes	Not used Characteristics
5	Strategy	5		X				
5	Systems	6		X				
4	Structure	1	F					
4	Process	2	F					
4	Resources	5		X				
4	Skills	15		X				
3	Output	4			X			
3	Innovation	7		X				
3	Shared Values	12				X		
3	Relationships	14		X				
3	Staff	14						X
2	Leadership	4		X				
2	Culture	13			X			
2	Entropy	17						X
2	Adaptability	17					X	
2	Feedback	18			X			
2	Management	2			X			
2	Connectivity	10						
2	Communication	8			X			
2	Information	11			X			
2	Decision-making	5			X			
2	Efficiency	13					X	
2	Co-ordination	10				X		
2	Change-readiness	12				X		
2	Conflict resolution	17				X		
2	Capability	10					X	
2	Regulation	17				X		
2	Capital	13		X				
1	Integration		S					
1	Differentiation							X
1	Requisite Variety					X		
1	Control				X			

Total in Literature	Characteristics	Mapped against Top 10 Links	Field	Key Characteristics	Processes	Health Attributes	Energy Attributes	Not used Characteristics
1	Direction							X
1	Knowledge			X				
1	Customer satisfaction							X
1	Customer relations					X		
1	Potential						X	
1	Actuality						X	
1	Incentive							X
1	Flexibility						X	
1	Market pressure							X
1	Learning					X		
1	Accountability						X	
1	Power							X
1	Sustainability						X	

Appendix 8: Mapping

	Strategy and Vision	Change and Innovation	Resources and Leadership	Output and Value	Process and Systems	Climate and Culture	Decision-making and	Health	Capability	Energy	Disruption	Output	Agility	Emotional	Strategy	Structure	Systems and Processes	Signature Practices	Sociocultural	Style	Skills	Shared Values	Shareholder Values	
Structure	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x								
Management			x																	x				x
Process					x		x		x								x							
Learning	x							x													x			
Leadership			x																	x				
Output				x								x												
Decision-making	x		x				x				x				x									
Resources			x						x												x			
Systems					x												x							

Strategy	x														x											
Innovation	x	x				x		x		x	x	x			x		x	x		x	x	x				
Communication	x	x	x		x	x	x	x	x	x	x		x	x	x	x	x	x	x	x		x	x			
Marketing																							x			
Capability										x													x			
Connectivity			x			x	x	x								x		x	x	x	x	x	x			
Co-ordination	x		x	x	x	x	x	x	x		x	x			x	x	x	x	x				x			
Analysis				x	x		x	x									x									
Information	x				x		x								x								x	x		
Policy	x				x	x	x			x	x	x			x		x	x					x			
Network	x	x	x			x	x	x	x	x	x				x		x						x	x		
Knowledge	x	x	x		x		x	x	x														x	x		
Change-readiness	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							x	x	x	x
Shared values							x																	x		

Culture						x								x					x			x					
Differentiation																											
Control	x		x		x		x								x	x	x			x							
Efficiency	x		x	x	x				x			x	x						x	x	x	x	x				
Intelligence	x	x	x		x		x		x					x			x			x	x	x					
Incentive				x	x		x							x			x						x	x			
Capital																											
Roles				x		x	x	x									x					x	x	x	x		
Teamwork				x			x	x							x			x							x		
Relationships				x			x	x							x			x							x	x	
Bureaucracy	x	x	x				x	x									x	x							x	x	x
Technology																											
Staff	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Power (Internal)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					x	x

Skills		x	x			x												x	x		
Customer-relations				x						x										x	
Sustainability	x	x			x	x	x		x			x	x	x				x	x	x	
Engagement			x			x					x							x	x		
Brand	x			x								x									
Risk	x	x			x		x					x								x	
Groups			x			x					x							x		x	
Entropy	x				x		x					x								x	
Function																					
Adaptability	x	x	x		x	x	x	x		x	x	x			x	x	x				
Creativity		x				x				x	x	x			x				x	x	x
Conflict resolution			x									x								x	
Potential																					
Flexibility		x					x		x											x	x

Regulation	x																						
Requisite variety																							
Feedback			x	x	x	x	x	x	x		x	x		x	x	x	x	x	x	x	x	x	x
Reputation				x		x					x												x
Quality	x			x	x		x	x	x		x			x								x	x
Supply Chain																							
Market-pressures	x	x			x	x		x			x		x									x	x
Accountability	x		x	x	x		x		x	x	x	x	x		x	x	x	x				x	x
Consistency	x		x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Direction	x		x	x		x	x	x			x				x								
Customer satisfaction				x		x			x	x		x			x							x	x
Power (External)	x	x				x		x			x			x									x
Reaction	x	x				x		x			x			x									x

Legal																																																				
Integration	x	x	x					x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x								
Logical																																																				
Actuality																																																				
Productivity	x			x					x			x																																								x
Rigidity																																																				
Image	x			x												x																																				
Divisions			x	x	x	x	x			x				x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

The matrix above shows the main areas identified in the literature review against all of the characteristics included in the TDNA aspects. Modelling and changing a company's DNA holistically means weaving various characteristics with intelligence, decision-making capabilities, and a collective focus on common goals widely and deeply woven into the fabric of the organization. The best organizational model design must be adaptive, self-correcting, and become more robust over time (Senior & Swailes, 2010).

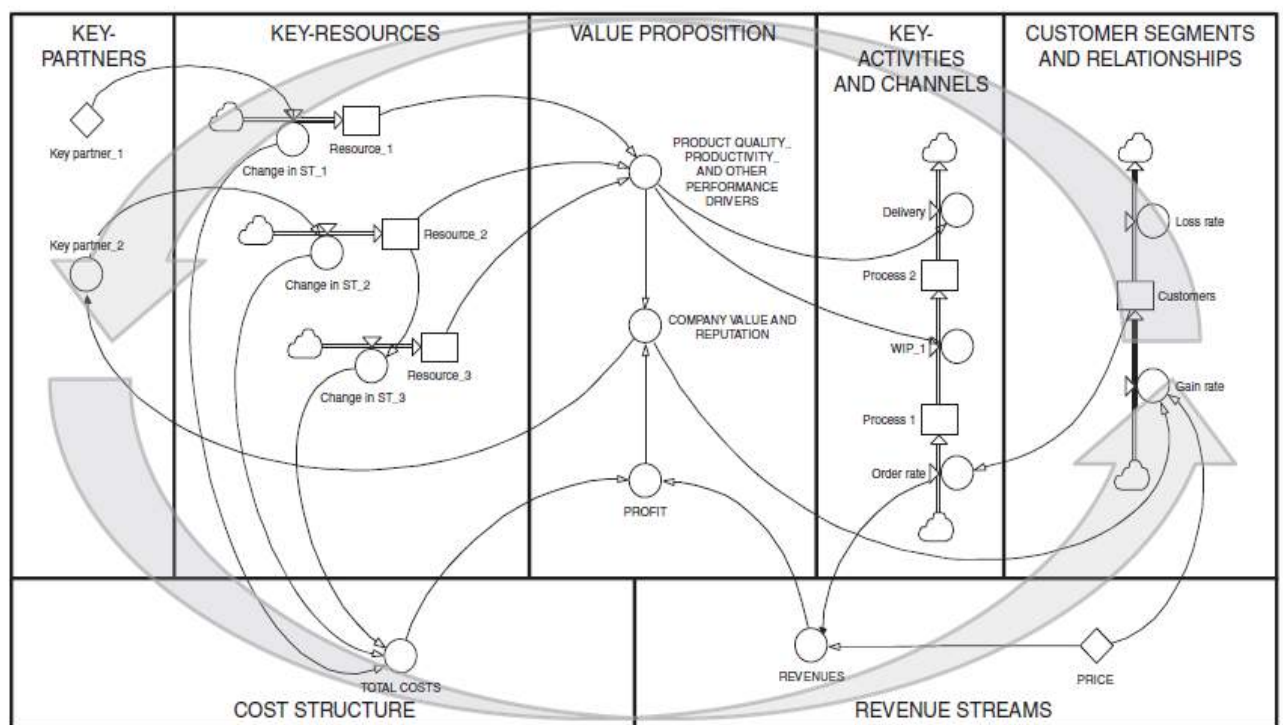
No company may ever totally master the enigma of the execution of change. But the most resilient and consistently successful ones have discovered that the devil is in the details of organization. For them, organizing to understand the characteristics that matter has truly become a competitive edge. In this research there have been 80 characteristics identified that complete the overall structure. Contained within this list are a number of characteristics that are more appropriate to be included in other organisational measures. Legal Actuality are included within any risk. Capital assessment that would contain any change process. Capital function technology supply chain and potential are part of the business case analyses. Law of Requisite Variety is a reality for organizations today. Only those that are able to be as flexible and adaptable as their environment can control their fate. Otherwise they are completely subject to the increasing variety around them. The characteristics applied with the model are designed to be logical and allow for great flexibility and adaptability to address this matter and the rigidity and differentiation sought.

Appendix 9: Re-examination of Literature 2017/2018

Cosenz, F. (2017). Supporting start-up business model design through system dynamics modelling. *Management Decision*, 55(1), 57–80. <https://doi.org/10.1108/MD-06-2016-0395>

Findings – The methodological support provided by system dynamics to business model design may effectively improve business strategy communication and performance management through both the adoption of a systemic and flexible perspective able to identify and analyse the main cause-and-effect relationships between the key-elements of the business strategy, and the use of a simulation technique that contributes in understanding how a firm operates, and its prospective performance over time.

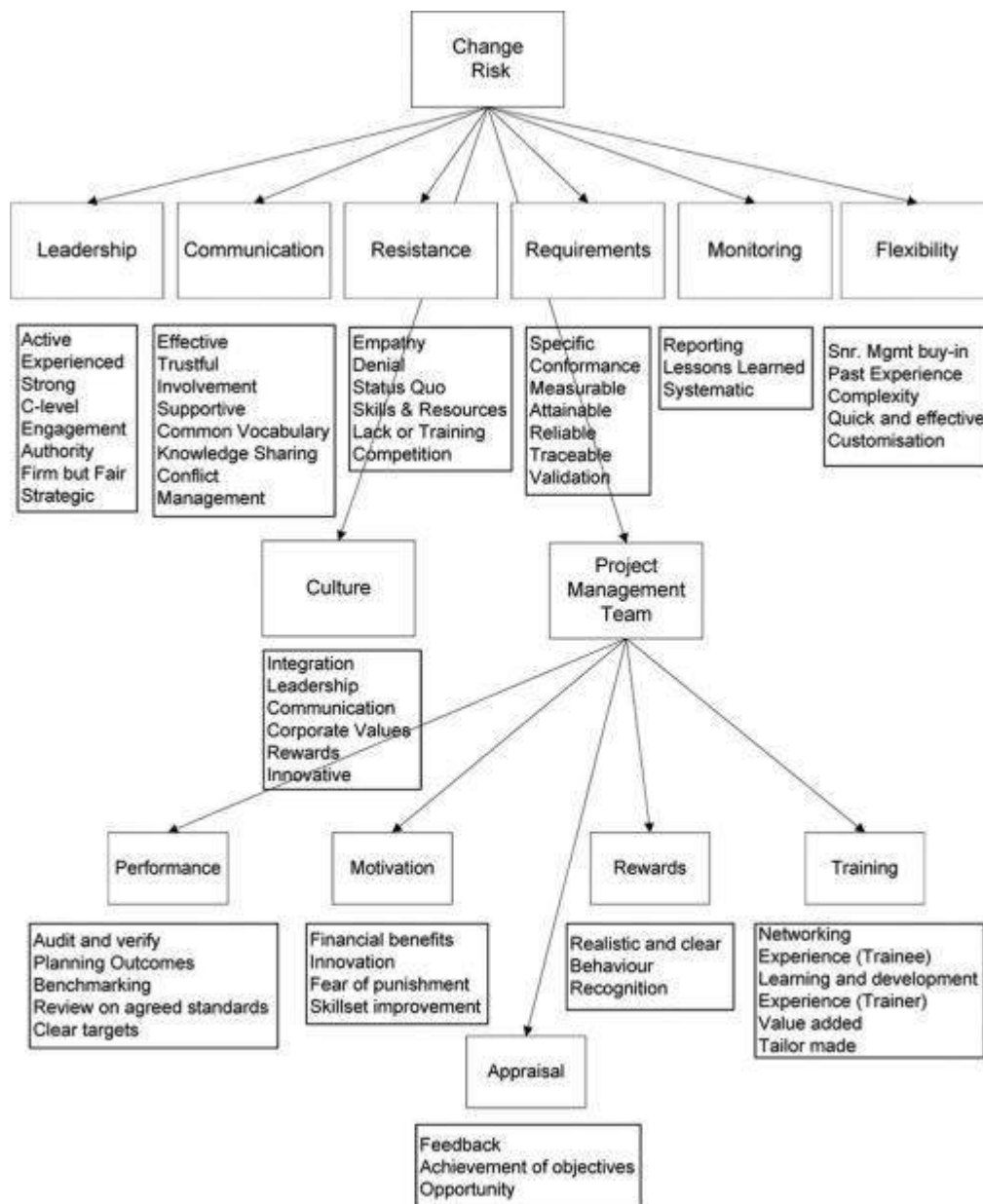
Dynamic Business Model Canvas (DBMC)



Apostolopoulos, C., Halikias, G., Maroukian, K., & Tsaramirsis, G. (2016). Facilitating organisational decision making: a change risk assessment model case study. *Journal of Modelling in Management*, 11(2), 694–721. <https://doi.org/10.1108/JM2-05-2014-0035>

Findings – Change risk factors assessment (identification and prioritisation) recommendations (see Case Study) integration of change management; project management; risk management top four risk factors, namely, leadership, communication, project management team and culture

Change risk hierarchy tree



Factors of change risk	
Factors	attributes
Leadership	active, authority, strategic
communication	effective, trustful, involvement, supportive, knowledge sharing, conflict management
culture	integration, leadership, communication
resistance	status quo, lack of training, competition
requirements	specific, conform to customers' expectations, attainable, traceable, validation
monitoring	reporting, improve from lessons learned, systematic
flexibility	snr.management buy-in, past experience, customisation

project management team	motivation, appraisal, rewards, training - sub-attributes: audit and verify, planning outcomes, clear targets, financial benefits, innovation, skillset improvement, achievement of objectives, opportunity, realistic and clear, behaviour, networking, experience (trainee), value added
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Wang, F., Chen, J., Wang, Y., Lutao, N., & Vanhaverbeke, W. (2014). The effect of R&D novelty and openness decision on firms' catch-up performance: Empirical evidence from China. *Technovation*, 34(1), 21-30.

Findings – The dimension of R&D novelty is defined as the degree of technological newness found in firms' R&D projects, while R&D openness describes the degree to which technologies are acquired from external sources. The results indicate that firms' R&D decisions regarding novelty and openness are associated with demand opportunities, market competition, technological capability, and external networks. Greater R&D novelty contributes positively to innovative output but does not affect sales growth. Greater R&D openness contributes positively to sales growth but negatively to innovative output.

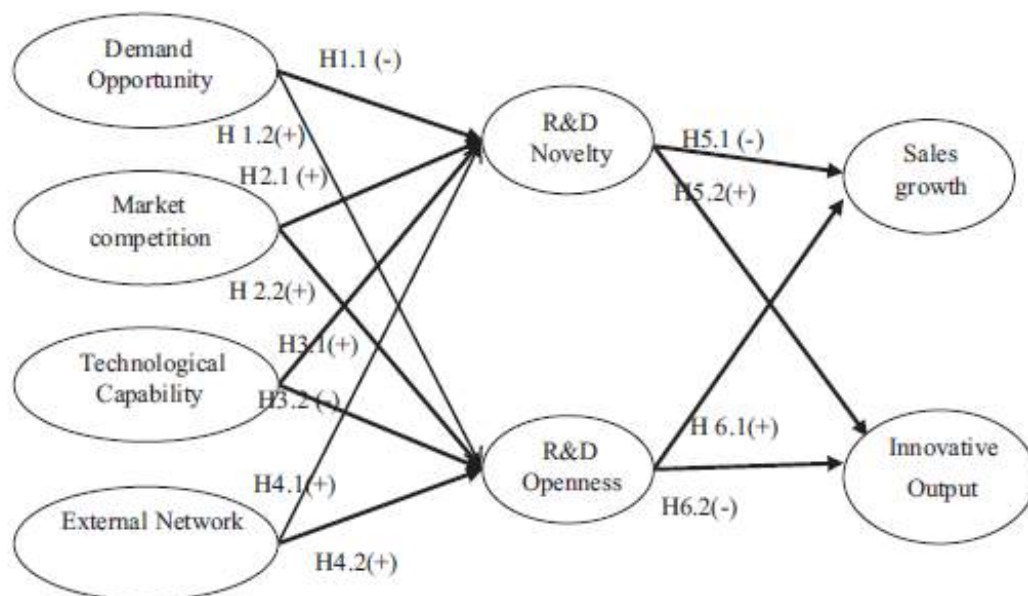
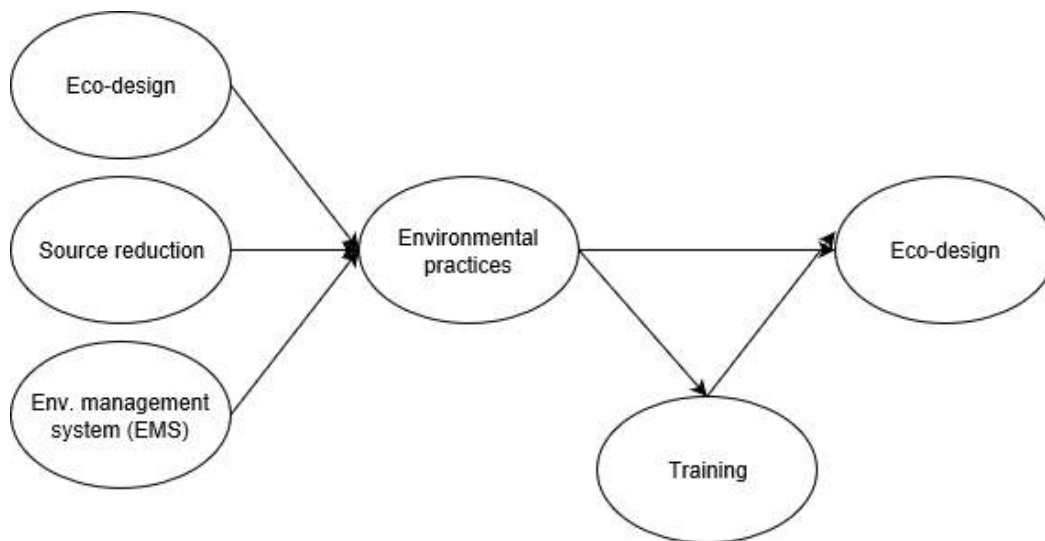


Fig. 1. A conceptual model of R&D decision making oriented towards novelty and openness for technological catch-up.

A system driven by marketing is one that puts the customer needs first, and produces goods that are known to sell. If the development is technology driven, R&D is directed toward developing products to meet the unmet needs.

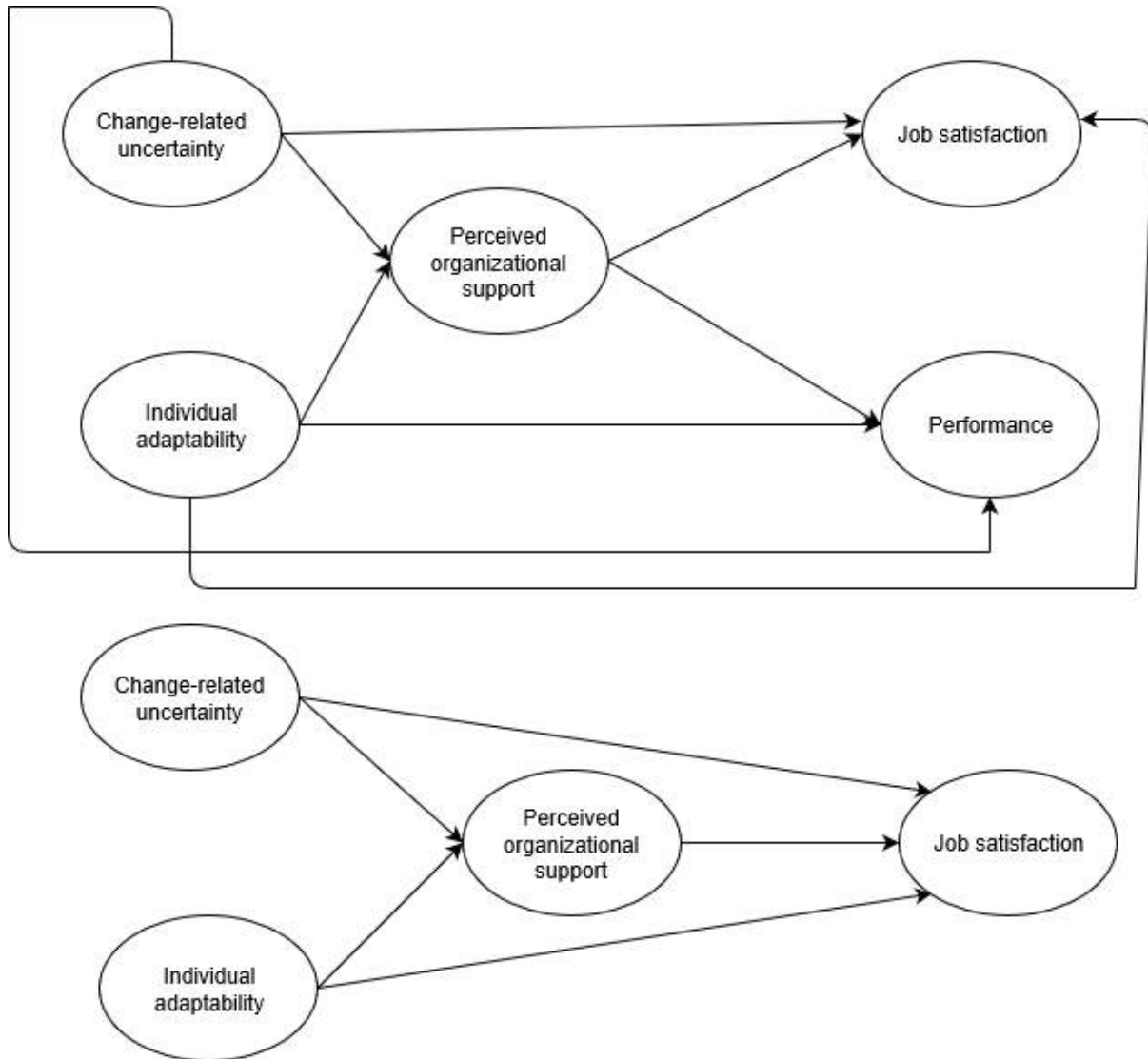
Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices: The mediating effect of training. *Journal of Operations Management*, 28(2), 163-176.

Findings – The results of this study indicate that training, specifically environmental training, mediates the relationship between stakeholder pressures and various environmental practices. Thus, development of the necessary intangible knowledge capacities is required in order to achieve effective response to pressures. Without instituted training programs, these pressures may go unheeded. (Adopted stakeholder theory and resource-based view (RBV) theory).



Cullen, K. L., Edwards, B. D., Casper, W. C., & Gue, K. R. (2014). Employees' adaptability and perceptions of change-related uncertainty: Implications for perceived organizational support, job satisfaction, and performance. *Journal of Business and Psychology*, 29(2), 269-280.

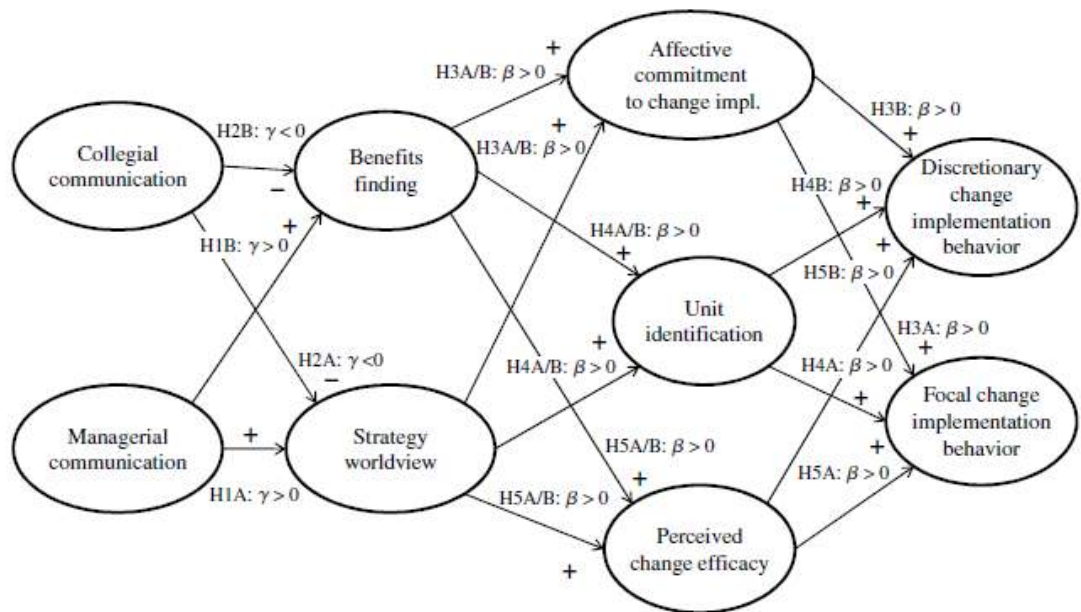
Findings – The results support the role of perceived organizational support as a mediator of the relationship between employees’ adaptability and perceptions of change-related uncertainty and employees’ satisfaction and performance.



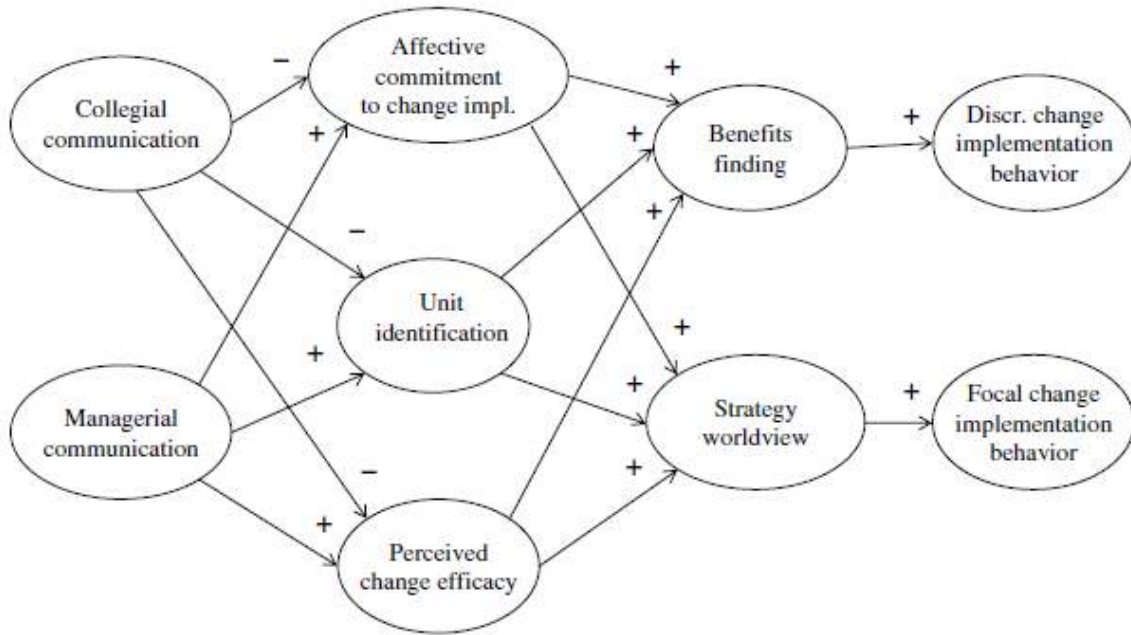
Sonenshein, S., & Dholakia, U. (2012). Explaining employee engagement with strategic change implementation: A meaning-making approach. *Organization Science*, 23(1), 1-23.

Findings – The certain types of meaning-making (strategy worldview and benefits finding) can create the requisite psychological resources that facilitate employees engaging in change implementation behaviour. The findings from this study support a Meaning-making change adaptation model (MCAM), in which employees’ interpretations of strategic change play an essential role in determining how they ultimately implement such change. Employees’ varied interpretations of change explain key psychological resources: resources that can activate employees to implement change.

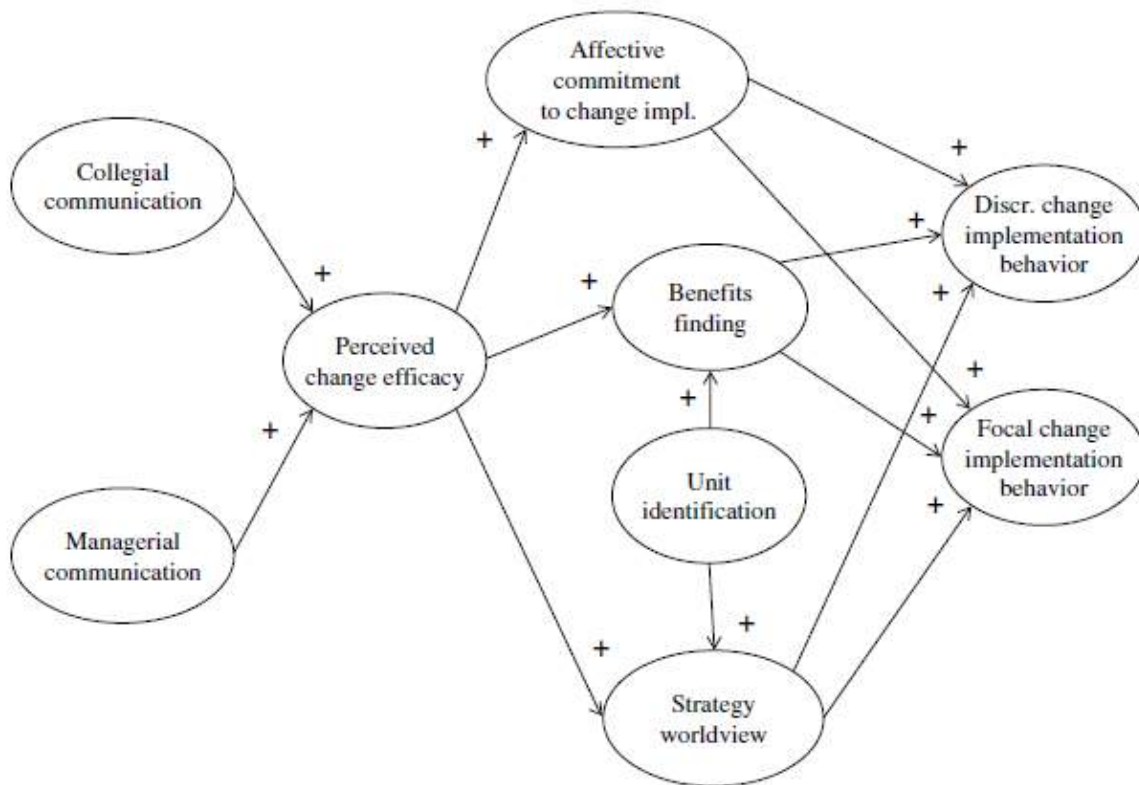
Figure 1 Hypothesized Paths in the MCAM



(a) Rival model 1: Reverse causation



(b) Rival model 2: Perceived change efficacy



Choi, J. N., Sung, S. Y., Lee, K., & Cho, D. S. (2011). Balancing cognition and emotion: Innovation implementation as a function of cognitive appraisal and emotional reactions toward innovation. *Journal of Organizational Behavior*, 32(1), 107-124.

Findings – Applying the appraisal theory of emotion and affective events theory (AET) to conceptualize the relationships between cognitions and emotions involving innovation. Two contextual factors (management involvement and training for innovation) significantly predicted employees’ collective cognitive appraisal of the innovation (perceived usefulness and perceived ease of use). Collective cognitive appraisal in turn predicted employees’ positive and negative emotions toward the innovation, which completely mediated the effects of contextual factors and cognitive appraisal on implementation effectiveness (consistent and committed use of the innovation in the branch).

This study thus provides a more ecologically valid explanation of how organisational context or the institutional environment affects collective cognitions and emotions of organisational members, who are usually the ultimate users of organisational innovations and thus determine the fate of new practices or systems.

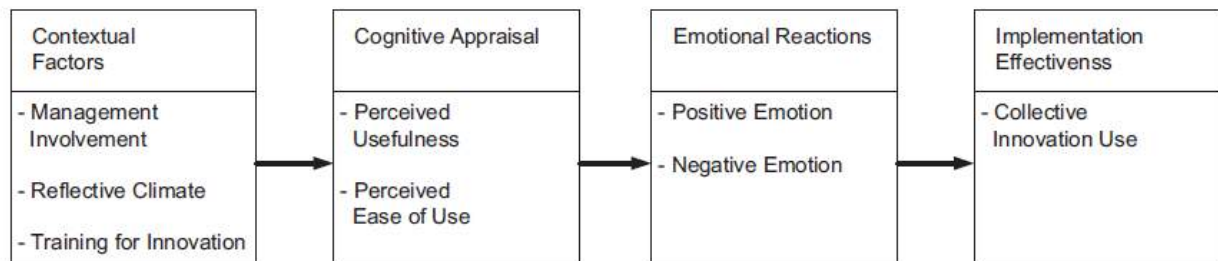


Figure 1. Theoretical framework predicting implementation effectiveness

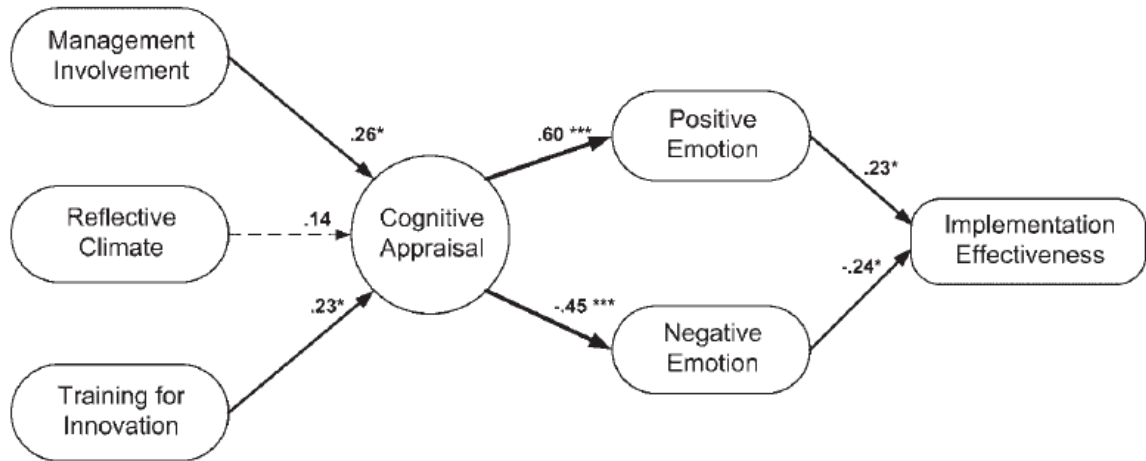
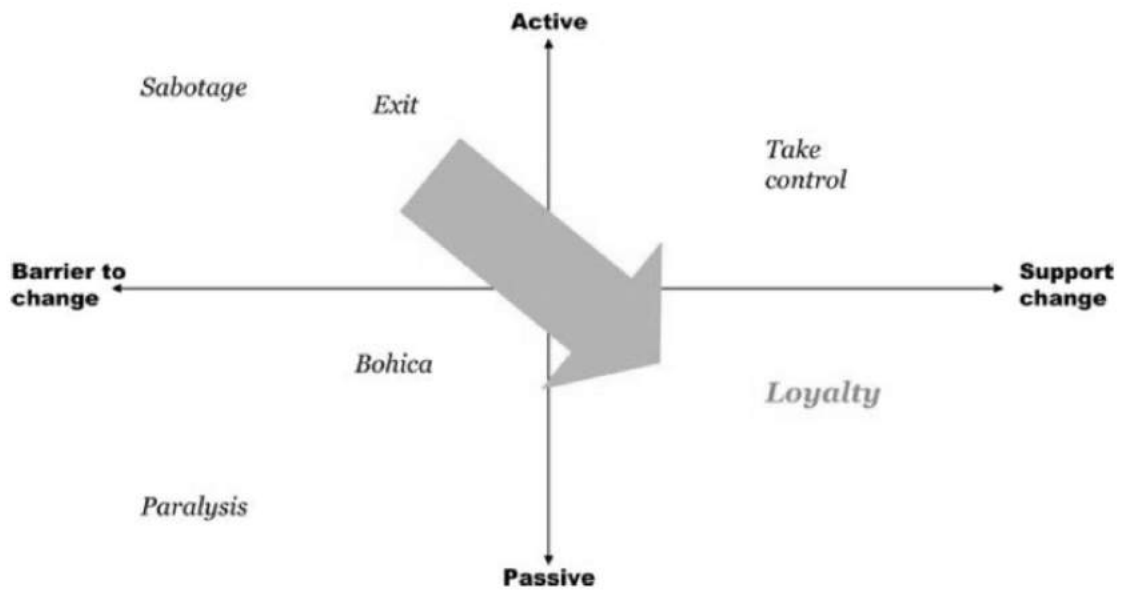


Figure 2. Collective user reaction model in the implementation process. *Note:* Solid lines represent statistically significant results. Insignificant paths are depicted as dotted lines in the diagram. * $p < 0.05$; *** $p < 0.001$

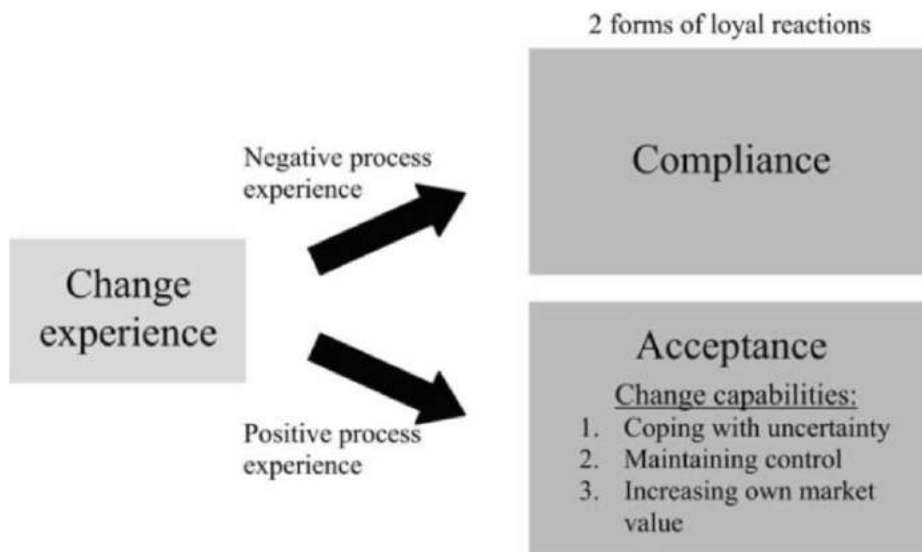
Stensaker, I. G., & Meyer, C. B. (2011). Change experience and employee reactions: developing capabilities for change. *Personnel Review*, 41(1), 106-124.

Findings – the findings suggest that experience provides opportunities for employees to develop their change capabilities, which leads to milder and more constructive reactions to subsequent change initiatives. However, negative experiences can lead to loyal behaviour that is based on cynical attitudes (Based on qualitative interview data).

How change experience influences reactions:



Experience-based change capabilities among employees:

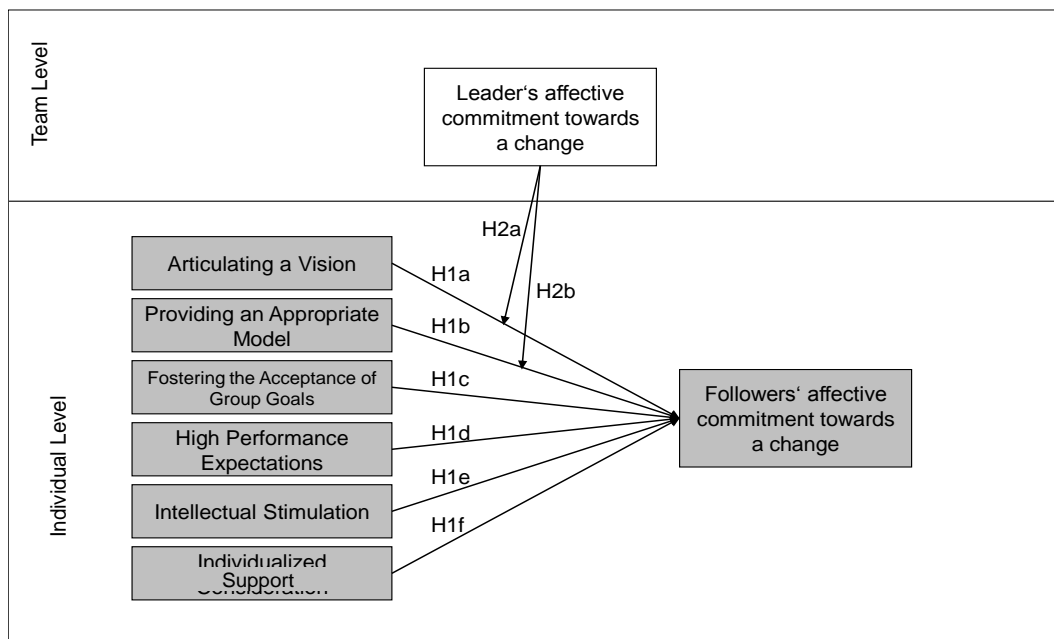


Smollan, R. K., Sayers, J. G., & Matheny, J. A. (2010). Emotional responses to the speed, frequency and timing of organisational change. *Time & Society*, 19(1), 28-53.

Findings – There are relationships between time, major change and negative emotion; time and perception of control; other factors such as fairness, disposition and emotional intelligence. Based on qualitative study (No empirical model).

Abrell-Vogel, C., & Rowold, J. (2014). Leaders’ commitment to change and their effectiveness in change—a multilevel investigation. *Journal of organizational change management*, 27(6), 900-921.

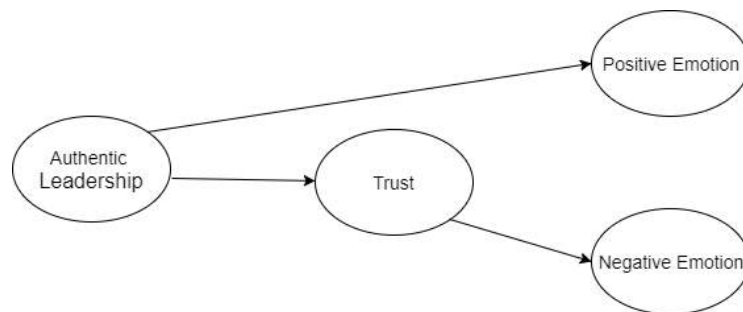
Findings – There is a significant positive effect of the transformational leadership behaviour ‘individual support’ on followers’ affective commitment toward change. Moreover, the transformational leadership behaviour ‘providing an appropriate model’ was shown as only positively contributing to followers’ commitment to change when leaders’ own commitment toward change was high.



Agote, L., Aramburu, N., & Lines, R. (2016). Authentic leadership perception, trust in the leader, and followers’ emotions in organizational change processes. *The Journal of Applied Behavioral Science*, 52(1), 35-63.

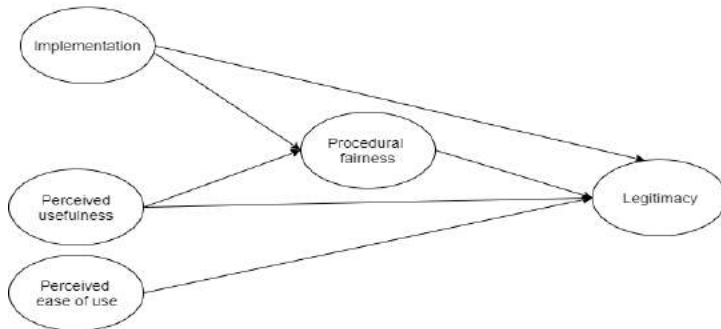
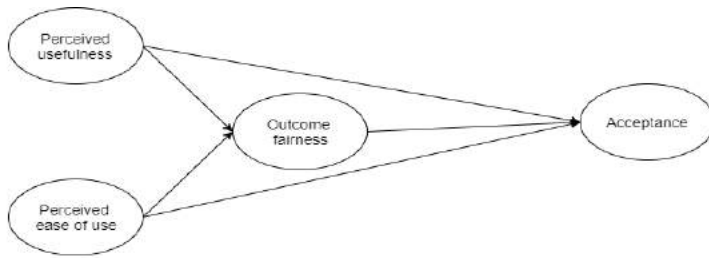
Findings – Authentic leadership is directly and positively related to followers’ trust in the leader and the experience of positive emotions. Furthermore, trust mediates the

relation between authentic leadership perception and the experience of negative emotions.



Jiao, H., & Zhao, G. (2014). When will employees embrace managers' technological innovations? The mediating effects of employees' perceptions of fairness on their willingness to accept change and its legitimacy. *Journal of Product Innovation Management*, 31(4), 780-798.

Findings - Change recipients' perception of procedural and outcome fairness mediated the impact of innovation characteristics and implementation approach on their acceptance of the innovation and the perceived legitimacy of the innovation. The results disclosed that the change recipients' fairness perceptions were a key step for their sense-making process of an innovation and its implementation. The results also indicated that studying change from recipients' perspective, as well as trying to understand their fairness perceptions, can broaden our knowledge about change.



Cohen, J. (2010). Cognitive, affective and behavioural responses to an ERP implementation: a dual perspective of technology acceptance and organisational change. ACIS 2010 Proceedings.

(Note: conference research proposal, no actual empirical test yet)

Findings – offering a theoretical perspective, to extend the understanding of multiple behavioural intentions at the pre-implementation stage by drawing on both the technology acceptance and organisational change literature.

Theoretical model:

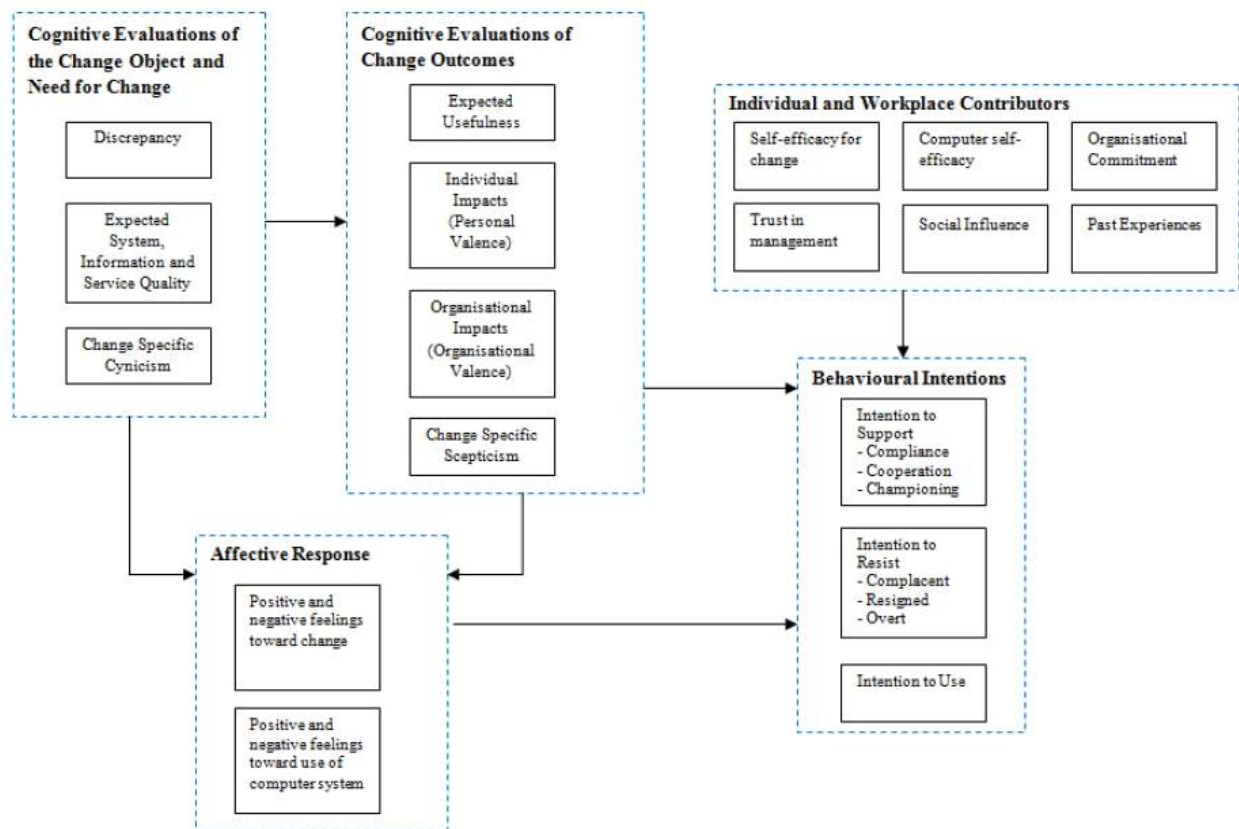


Figure 1: Research Model Predicting Behavioural Intentions

Parent, J. D., Sullivan, C. C., Hardway, C., & Butterfield, D. A. (2012). A model and test of individual and organization factors influencing individual adaptation to change. *Organization Management Journal*, 9(4), 216-235.

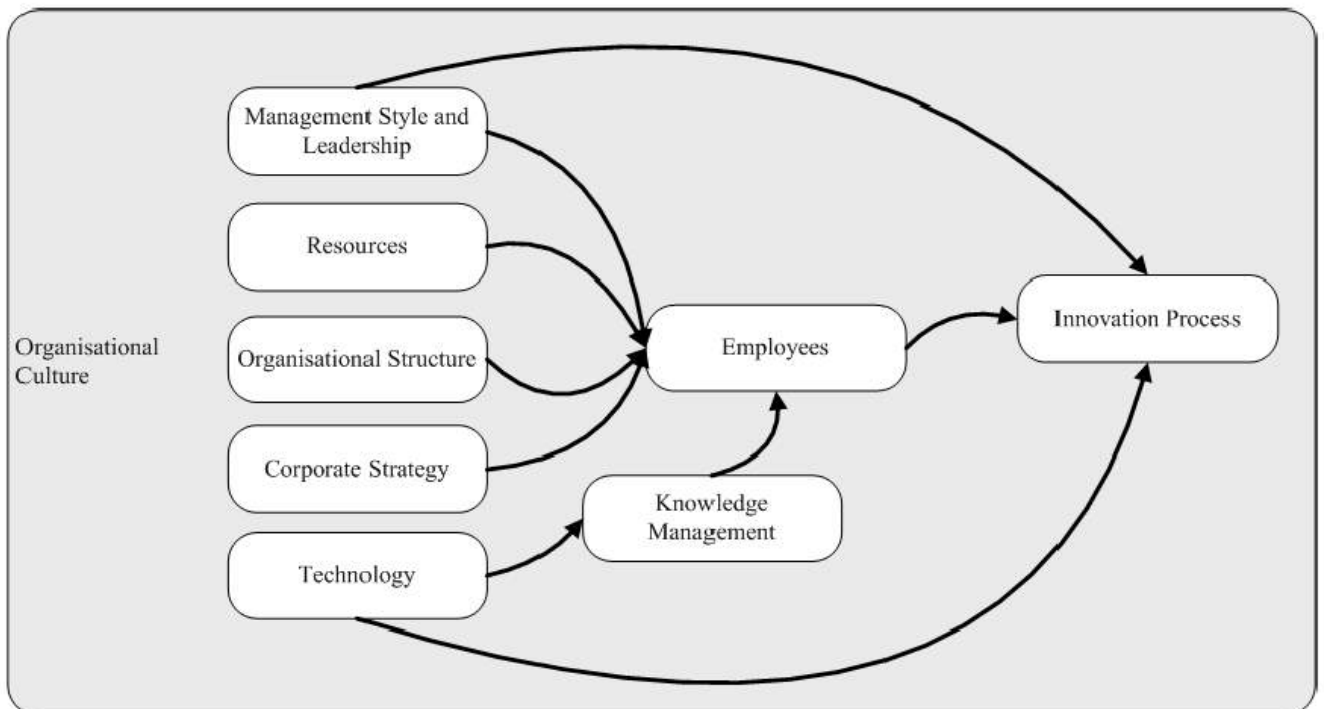
Findings – Results indicate participation, role clarity, and optimism are positively related to adaptability. Better adaptors are more satisfied with their jobs, are less likely to quit the organisation, and perceived higher performance after the change.

Smith, M., Busi, M., Ball, P., & Van der Meer, R. (2008). Factors influencing an organisation's ability to manage innovation: a structured literature review and conceptual model. *International Journal of Innovation Management*, 12(4), 655–676.

Factors and sub-factors influencing an organisations ability to manage innovation

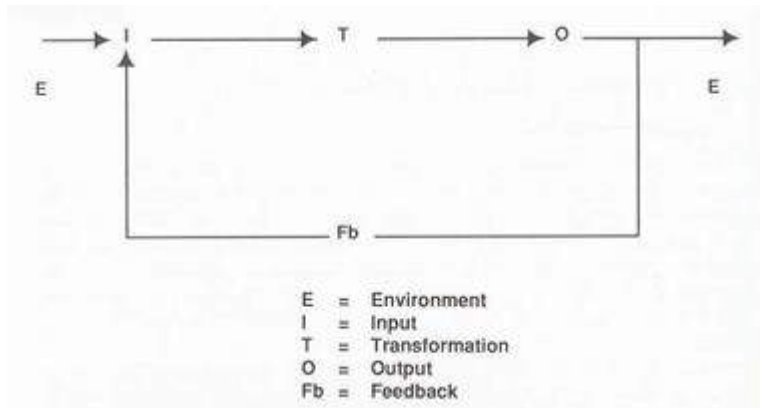
<i>Factor</i>	<i>descriptions</i>	<i>Sub-Factors</i>
Technology	An output of innovation. It is concerned with the utilisation of technology to facilitate innovation and innovative behaviour within and between organisations.	Utilisation of technology Technical skills and education Technology strategy
Innovation process	It relates to the generation, development and implementation of innovations.	Idea generation Selection and evaluation techniques Implementation mechanism
Corporate strategy	It refers to aspects of the corporate and innovation strategies of the organisation and how they impact on the management of innovation, and also the dissemination of the strategic vision throughout the organisation.	Organisational strategy Innovation strategy Vision and goals of the organisation Strategic decision making
Organisational structure	It relates to the way the various parts of an organisation are configured and how this impacts on an organisations ability to manage innovation.	Organisational differentiation Centralisation Formality
Organisational culture	It relates to the values and beliefs of the organisation and how these impact the ability to manage innovation within the organisation. It takes into consideration the organisation's approach to collaboration, communication and risk	Communication Collaboration Attitude to risk Attitude to innovation
Employees	It refers to the non-management employees of the organisation and the role they play in affecting innovation management. It takes into account the various personal characteristics associated with employees and the motivation of employees to become innovative.	Motivation to innovate Employee skills and education Employee personalities training
Resources	It relates to all the resources that the organisation has, human, financial and physical, but they are discussed in relation to the level of slack resources and how resources are managed to	Utilisation of slack resources Planning and management of resources Knowledge resources Technology resources

	impact on an organisations ability to manage innovation.	Financial resources
Knowledge management	It refers to the management and utilisation of knowledge for innovation management. This covers all aspects of knowledge, both internal and external to the organisation, and also take organisational learning into consideration as it plays a key role in knowledge management.	Organisational learning Knowledge of external environment Utilisation of knowledge repositories
Management style and leadership	It refers to the employees that have responsibility for the management of the organisation. It is concerned with a number of aspects to the way management influences the management of innovation.	Management personalities Management style Motivation of employees




Systems Theory: Bertalanffy, von, L. (1968). *General systems theory*. New York: Braziller.

https://www.utwente.nl/en/bms/communication-theories/sorted-by-cluster/Communication%20Processes/System_Theory/










Appendix 10: Screen Shots of Sample of 554 Narrative Descriptors created for the Database.

Home




1

HEALTH
















2 3 4 5 6 7 8



9

CAPABILITY

10 11 12 13 14 15 16

Appendix 12 : Case Study Instruction

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Close

Introduction to The Model

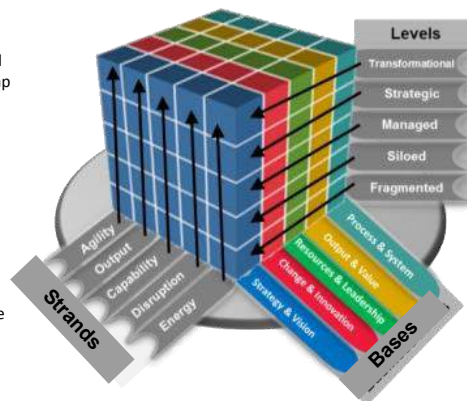
Helping you to get under the skin of the your organisation

The Model has been developed by the Author to allow organisations to better understand the dynamics of current and future performance in areas such as business strategy, leadership, team work, energy and motivation.

The Model has the unique capability of holistically understanding the complexity underlying organisational transformation at both the macro and micro level to map your current and desired states, allowing you to clearly see the transformation journey needed.

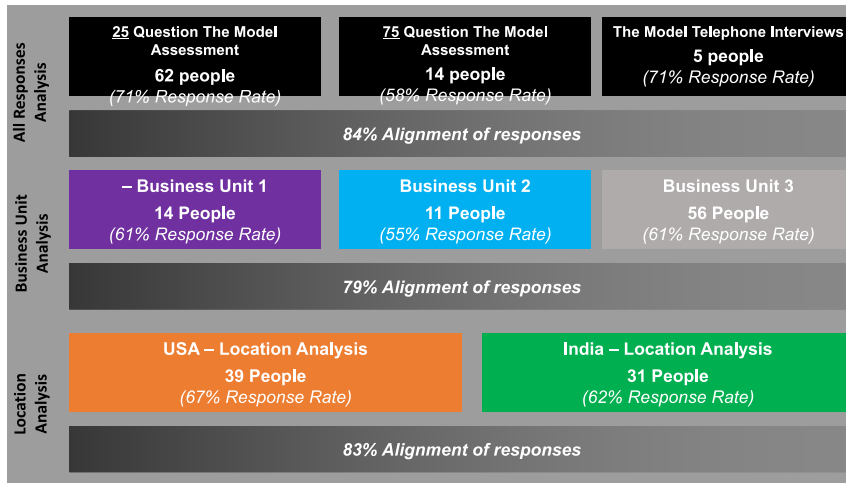
The organisation will be measured across 5 bases, strands, and levels to create a cube structure (pictured on right).

The following pages of this report will apply these measures to the answers given by a selection of the Client team, providing a deep analysis of the organisation's current and future state, summarising the areas of desired change.



Client Model Responses Overview

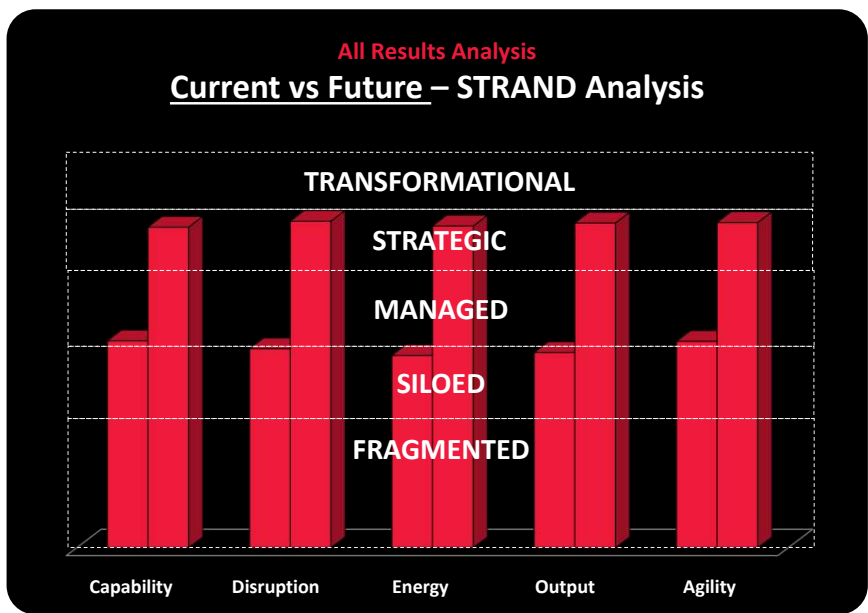
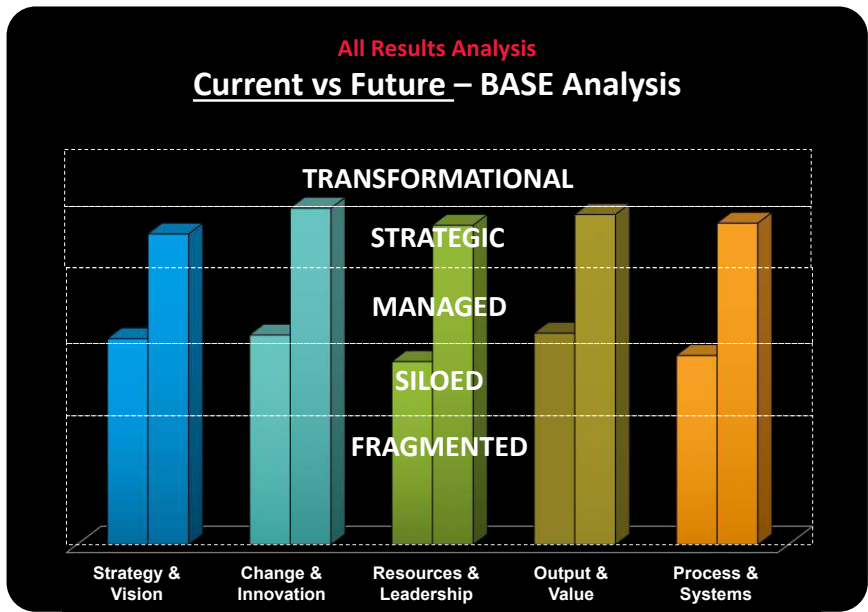
The Author and Client Model analysis has been completed using the following data sources and data groupings, as shown within the graphic below. We understand this is only a small sample of the Client business, business units and geographical sample.



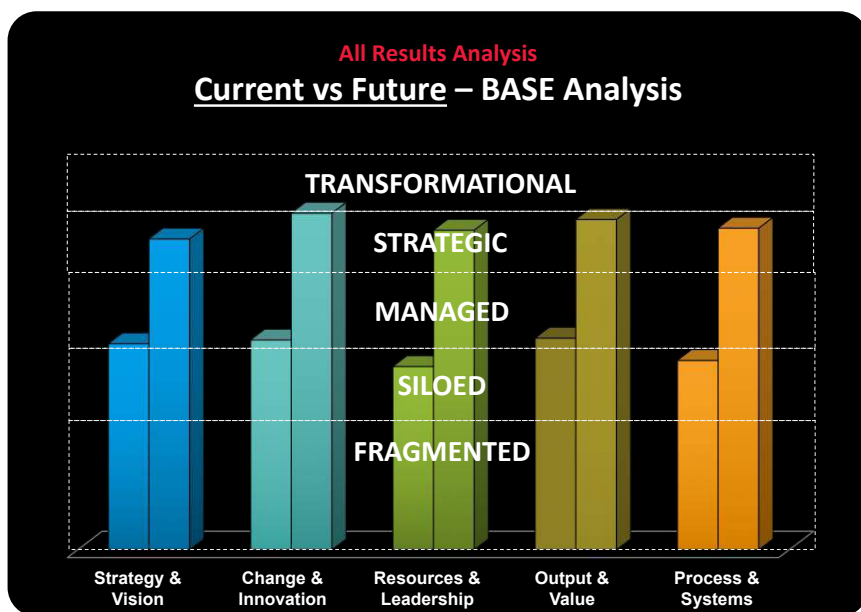
Analysis Summary

The Client - All Data Analysis:

- When analysing the all of the data collected, it is clear that the current view of the organisation is at a Siloed or Managed level. In brief this means the business currently operates at a very controlled level, with information and resources often held in individual business units/verticals with somewhat limited knowledge transfer between the verticals. Often in a organisation like this employees at all levels complete the tasks they are required to do, however may not seek to give additional discretionary effort or take it on themselves to support and drive change in the organisation. Although this keeps everything under close control it does not necessarily allow the business to be highly responsive to change, embrace new trends, enable more effective employee engagement or work well in a highly disruptive and ambiguous marketplace/ environment.
- The desired future state of the organisation is viewed at a Strategic or Transformational level. This means that the desired future is one of a highly adaptable operational business, with systems and processes that are constantly improved and updated, where leaders are trusted to make quick decisions at all levels of the business, execution is swift and leaders drive the organisation to be a market shaper.
- The feedback is consistent when analysed at a general, business unit, or geographical view point and can be seen on pages 7 and 8, showing the full analysis of the The Model Bases and Strands.
- There are key areas which we have identified as the most desired areas of change which are outlined in the detailed analysis sections of this The Model report. Where these have been identified individual detailed written analysis has been provided based on the most desired area of change either at a Client wide, business unit or geographical level.
- The qualitative feedback provided within the telephone interviews, in the majority of cases directly correlated to all of the quantitative feedback which had been received. Please see further narrative feedback on pages 61-67.



- Section 2:
- Part 1 – Overview Analysis



Most Desired BASE of Change: Resources & Leadership

What is Resources & Leadership:

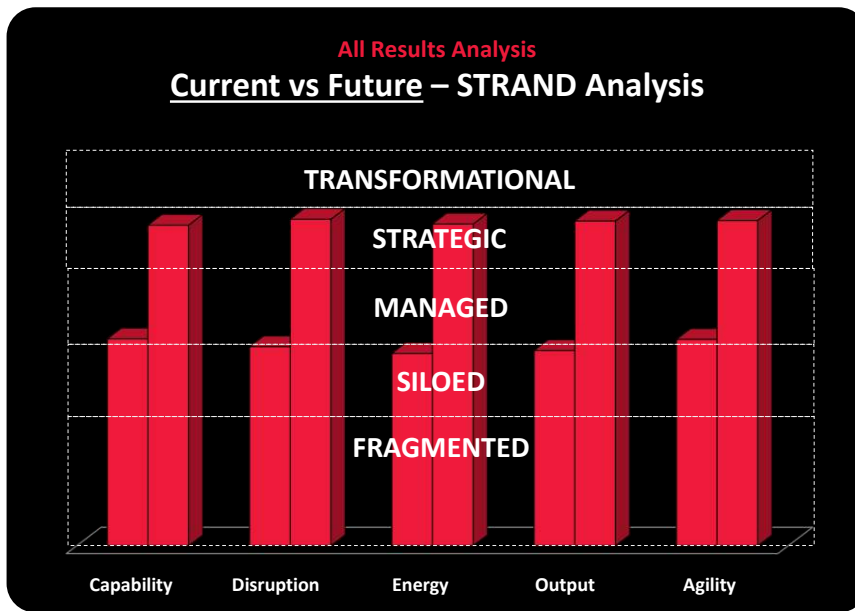
Resources and Leadership refers to the organisation's 'wealth bank' of people needed to translate the 'strategy / vision' into the reality of a successful and sustainable enterprise. This includes the wealth of skills, competencies, qualities and human values that can be contributed at all levels to 'add value'. Leaders at all levels must be able to articulate and communicate the desired future state in ways everyone can understand, relate to and commit to.

Current State – Siloed

- S1. Leaders pursue their own vision at a team or functional level. Most people have no awareness of the vision/strategy and play virtually no part in developing or implementing the strategy of the organisation in any structured way.
- S2. People are structured into functions and follow technical career pathways, seldom moving out of their discipline. Knowledge is power and technical knowledge is the most powerful form. People work in teams within the functional silos but will tend to simply hand over work to other functions should the need for their contributions arise, as opposed to working collaboratively across the boundaries. Cross-functional working will occur if the parties know each other but less so in the absence of personal connections and relationships.
- S3. Working processes may well differ across functions and sub-cultures will be evident. The focus of activity is on resolution of problems and the delivery of tactical or task-based business objectives. People will give discretionary effort if it helps their function or discipline to stand out but will be less inclined if it involves working at a business level, unless this provides exposure to the senior team. People will make decisions at the level of their perceived authority and any contentious problems or complex issues are passed up the hierarchy for resolution.
- S4. People focus on delivering what they know and what is defined by their job description and will take a short-term measure of success which will seldom have the customer at the centre of the evaluation process.
- S5. There tends to be a culture of blame, particularly across the functions, and people will work to ensure that they deliver what is expected of them and leave an audit trail to prove that they have delivered. Knowledge and experience are held in high regard and development is largely concerned with expanding these within the functional discipline.
- S6. Managers tend to focus on securing compliance to the rules and disciplines that are transparent within the business. Leadership is still overwhelmingly transactional.
- S7. There are high levels of technical and professional skill in individuals and teams but little evidence of organisational awareness, business skills or multi-skilling. People have a mindset of focusing on being very good at what they do in their corner of the organisation.
- S8. Pride in professional/technical knowledge and expertise, loyalty to the team. The historical achievements and successes of the organisation will be important.
- S9. Some people of the organisation are seen as highly competent by customers; some are not. There are islands of high professionalism and competence associated with particular teams and specialities but the inconsistency across the organisation inspires uncertainty in customer, societal and shareholder perceptions.

Desired Future State – Strategic

- S1. The business has a goal deployment process that cascades accountability down to all levels and this is intertwined with the performance characteristics, so everybody knows what they need to do and how they need to behave.
- S2. People are empowered to make decisions within their roles and in doing so will take full account of the prevailing circumstances to ensure an holistic and appropriate response is provided. Cross-functional working is the norm as work groups that comprise the people able to make a difference are created and deployed. Such work groups exist only whilst there is a need for them – they do not continue without a purpose.
- S3. There are highly effective systems in place for communication, consultation, planning, staff deployment, training and development, career progression, workplace counselling and support.
- S4. There is a high degree of flexibility and adaptivity within the business and discretionary effort is the norm.
- S5. There is a clear performance culture within the business; customers needs and expectations are monitored and reviewed on an ongoing basis.
- S6. Leaders understand the importance of creating and nurturing a performance culture and spend time and energy in doing so. Leaders have recognised the difference between commitment and compliance and create the culture where people excel because their personal ambitions are realised.
- S7. People across the business understand the strategic imperatives and drivers and routinely align their actions and behaviours to ensure that the vision and strategy are achieved. Development pathways are in evidence; these transcend organisational boundaries as the business seeks to proactively forecast and prepare for changes in customer demand and to develop a powerful capability to deal with change and ambiguity.
- S8. People across the organisation understand that customer-centricity is a powerful philosophy; they are committed to make it work in practice.
- S9. The people of the organisation conduct their roles and behave in ways that inspire trust and confidence in customers, shareholders and wider society; in short, all external stakeholders.



Most Desired STRAND of Change: Output

What is Output:

'Output' refers to the perceived level of value of the output of the enterprise from the perspective of customers and from the organisation's perspective, whether the costs of delivering this level of value permits the achievement of a satisfactory and sustainable profit margin. Outcomes are both tangible (the good reasons people buy things) and intangible (the real reasons people buy things). Business output needs to appropriately balance both, and beat competition on both. Intangibles can include peripheral outputs which can for example be accounted for in CSR activities. Leaders recognise the existence of predictable evolution patterns and the 'untapped potential' in their outputs and have set in place structures and capabilities that systematically seek to commercialise this untapped potential.

Current State – Managed

- S1. The organisation has more advanced strategic capability. It has some systems in place to pick up information from customers on what they perceive as value in the product or service and some systems in place to channel information into organisation structures, processes and systems. Consequently, output is now influenced by customer demands and needs, not just what the internal technical experts say has value.
- S2. People work collaboratively across business functions to understand customer requirements and to deliver the required outputs. Outputs are tracked at a business level and individual functional contributions are recognised and valued.
- S3. The organisation is capable of delivering an output with better resource utilisation because formal business process/business improvement programmes are initiated to remove waste from existing business value streams. The organisation is now designing out waste and has started to recognize that achieving high value in output depends upon overcoming internal functional boundaries. Organisations have standard processes in place and have begun comparing results, sharing lessons learned and transferring people more easily among projects and work areas.
- S4. The organisation is typified by people working together in organised formal ways to ensure a good organisational output is delivered. There is internal cooperation.
- S5. The organisation culture facilitates working together to deliver output. People now think in terms of the organisation output rather than the silo/team output.
- S6. Leaders are interested in their team's contribution to the organisation output and work to ensure that this contribution fits in with the contribution of other teams. Leaders engage in cross-silo working to ensure delivery of output. Leaders work to ensure process conformance, ensuring their people work to agreed processes, procedures and systems.
- S7. Continuous improvement is well established across all parts of the organisation. The organisation will actively benchmark skills against competitors.
- S8. People are concerned that work is carried out as standard operating procedures require. Conformance is valued; doing things the correct way to formal standards and performance criteria to ensure output is correct. Variability and individuality is not valued.
- S9. Output is more likely to be seen as having value in customer eyes. This leads to an improved level of efficiency of consistency of output in terms of quality and quantity. There is now a high level of consistency of output, so customer experience is likely to be highly consistent across tangible and intangible gains.

Desired Future – Strategic

- S1. The organisation has an advanced strategic capability, able to pick up and process information not just about current customer needs but also emergent needs. It can identify and analyse the needs of non-customers.
- S2. There are high degrees of collaborative working across the business and clear strategic alignment to deliver value. The business places great emphasis on having the right people with the right skills in the right place at the right time and then deploying these effectively to deliver results.
- S3. The high process and system capability of this level also enables the enterprise to deliver value very consistently. Customer and market needs are well understood and the focus on delivering the precise requirements - efficiency and effectiveness are held in equal regard. The business is organised along value streams with managers responsible for the entire order entry to delivery process. At this level, processes are highly consistent, controlled, understood, standardised and sensitive to customer needs and wants, both tangible and intangible.
- S4. There is a general strong commitment to deliver a good output. People are willing to go beyond role/job expectations to ensure good output is delivered.
- S5. The culture emphasises the importance of the customer perception of value in the output and the centrality of meeting existing and emerging customer needs, both tangible and intangible.
- S6. Leaders at all levels are now operating on two levels; leading their people and working with others across the organisation to ensure high value output. They see their team as only one component in a much wider system. They are business focused before being team focused.
- S7. High levels of job-specific skills and high levels of organisation/business skills throughout the organisation. Creating step-change solutions has become the norm.
- S8. People are genuinely interested in and concerned about what customers experience and how the organisation is perceived.
- S9. Consequently, the organisation is able to deliver output which has high value to current customers and can deliver high value for emerging customers. Customers will have consistent experiences of value from the product or service. Output produced by organisations at this stage will reliably and consistently meet market needs, and the organisation can perform business as well as technical innovations in its output.

•Section 2: •Part 2 – Detailed Analysis



All Results Analysis
All Bases and Strands

	Measurement Strand	Current State %	Desired Future %
Strategy & Vision	Capability	57.04	84.94
	Disruption	49.14	79.34
	Energy	54.40	86.58
	Output	47.41	76.54
	Agility	59.92	76.87
Change & Innovation	Capability	56.63	87.41
	Disruption	53.91	88.64
	Energy	53.17	85.02
	Output	57.70	88.40
	Agility	51.36	88.31
Resources & Leadership	Capability	47.98	79.92
	Disruption	47.16	78.85
	Energy	50.86	83.70
	Output	47.16	86.34
	Agility	45.02	86.83
Output & Value	Capability	57.04	85.51
	Disruption	54.65	88.40
	Energy	52.35	88.64
	Output	51.85	82.14
	Agility	59.34	84.86
Process & Systems	Capability	50.37	79.18
	Disruption	53.91	89.47
	Energy	39.34	74.49
	Output	49.79	88.97
	Agility	52.76	86.17

All Results Analysis

5 - CURRENT HIGHEST Rated Business Areas

Business Area		Current State	
		Score %	Band
1	Strategy and Vision - Agility	59.92	Managed
2	Output and Value - Agility	59.34	Managed
3	Change and Innovation - Output	57.70	Managed
4	Output and Value - Capability	57.04	Managed
5	Strategy and Vision - Capability	57.04	Managed

5 - CURRENT LOWEST Rated Business Areas

Business Area		Current State	
		Score	Band
1	Process and Systems - Energy	39.34	Siloed
2	Resources and Leadership - Agility	45.02	Siloed
3	Resources and Leadership - Disruption	47.16	Siloed
4	Resources and Leadership - Output	47.16	Siloed
5	Strategy and Vision - Output	47.41	Siloed

All Results Analysis

5 FUTURE HIGHEST Rated Business Areas

Business Area		Current State	
		Score %	Band
1	Process and Systems - Disruption	89.47	Transformational
2	Process and Systems - Output	88.97	Transformational
3	Output and Value - Energy	88.64	Transformational
4	Change and Innovation - Disruption	88.64	Transformational
5	Output and Value - Disruption	88.40	Transformational

5 FUTURE LOWEST Rated Business Areas

Business Area		Current State	
		Score %	Band
1	Process and Systems - Energy	74.49	Strategic
2	Strategy and Vision - Output	76.54	Strategic
3	Strategy and Vision - Agility	76.87	Strategic
4	Resources and Leadership - Disruption	78.85	Strategic
5	Process and Systems - Capability	79.18	Strategic

All Results Analysis

5 Areas of MOST Desired Change

Business Area		Current State Percentage (%)	Future State Percentage (%)	Journey Change Desired %
1	Resources and Leadership - Agility	45.02	86.83	41.81
2	Process and Systems - Output	49.79	88.97	39.18
3	Resources and Leadership - Output	47.16	86.34	39.18
4	Change and Innovation - Agility	51.36	88.31	36.95
5	Output and Value - Energy	52.35	88.64	36.30

5 Areas of LEAST Desired Change

Business Area		Current State Percentage (%)	Future State Percentage (%)	Journey Change Desired %
1	Strategy and Vision - Agility	59.92	76.87	16.95
2	Output and Value - Agility	59.34	84.86	25.51
3	Strategy and Vision - Capability	57.04	84.94	27.90
4	Output and Value - Capability	57.04	85.51	28.48
5	Process and Systems - Capability	50.37	79.18	28.81

Most Desired Area of Change: Resources & Leadership – Agility

What is Resources and Leadership Agility:

This facet is concerned with how quickly and effectively people within the organisation can change and adapt their work to meet new customer requirements or new strategic demands. High agility will be associated with people: Having a high degree of 'organisation knowledge'; knowing and understanding how the total business works, how other teams and functional divisions work and how ones own work fits into the 'bigger picture'.

Current State – Siloed

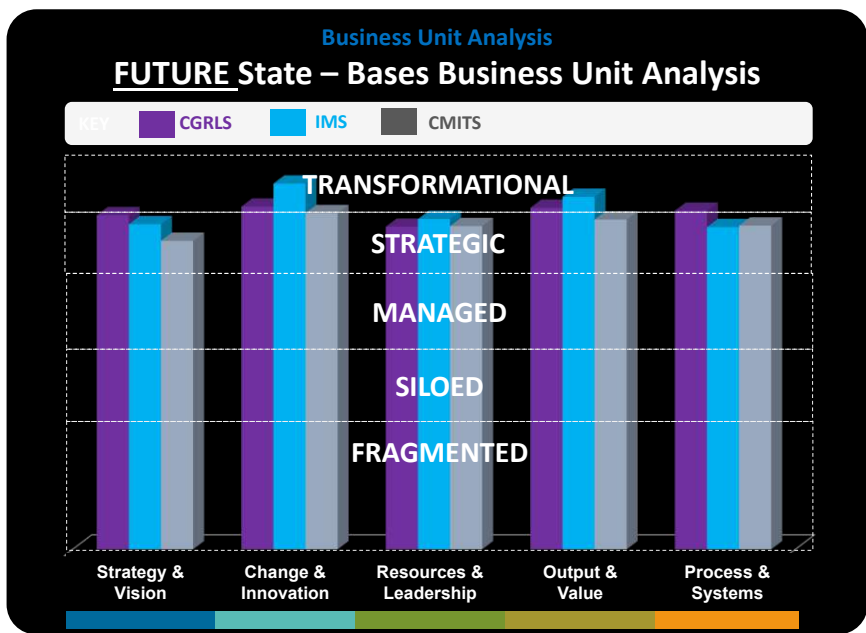
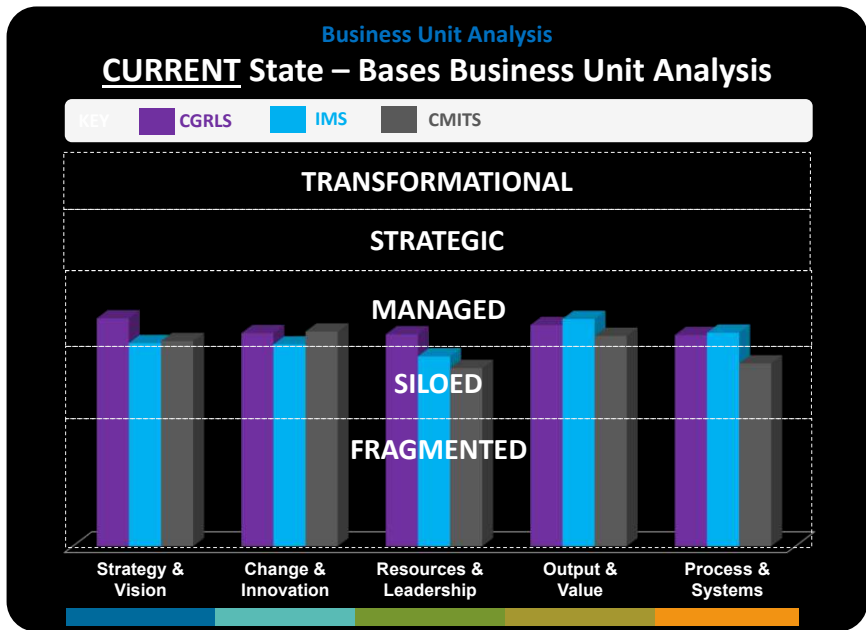
- S1. Primary focus on technical skills and maintenance of the status quo, together with internal barriers across the functional silos make it difficult for people to adapt to changes to strategy, or responses tend to be through implementation of delegated tasks.
- S2. There is a strong silo structure and culture across the business, which makes it difficult to flexibly adapt to changes in strategy at anything other than a functional or technical level unless the changes are at a strategic level.
- S3. Functionally based systems and processes hamper the ability of the organisation to mobilise people to change direction. The inherent lack of coordination across the functions mitigates against systemic learning and adaptation to change.
- S4. Changes tend to remain oriented within the specific function, and upstream and downstream causes and impacts are not readily recognised or addressed. People tend to find workarounds to cover gaps and flaws in the systems.
- S5. There is a lack of any strong unifying organisation culture so people's reactions to a change of strategy differs markedly across the organisation. Some will embrace it, others resist.
- S6. Leaders are responsive to change and will modify work processes and practices accordingly. Such changes to work processes will generally result in the identification of training needs, which will be addressed from a functional and task-focused perspective.
- S7. Changes to work processes will generally result in the identification of training needs, which will be addressed from a functional and task-focused perspective.
- S8. Although process conformance is seen as a critical imperative across the business there is a varying degree of responsiveness to customer demands and these will be incorporated into the work processes relatively inefficiently.
- S9. Shareholders are likely to have little confidence that the people of the organisation can change direction as strategy changes.

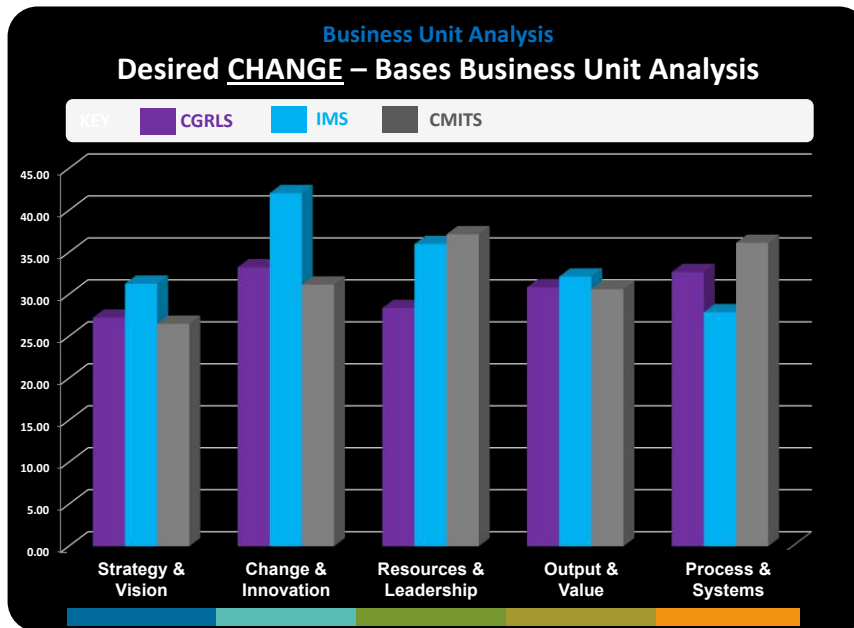
Desired Future – Transformational

- S1. The business is highly agile and people across the business are attuned to changes at the societal level. There is a widespread recognition of the need for flexibility and fluidity and an inherent capability to change direction when required.
- S2. There is fluidity across the business with teams forming to address present- and future-focused challenges. Such teams will galvanise the skills within the business and access other required skills from across a broader collaborative community.
- S3. Systems and processes are flexible and highly effective with clear monitoring of the internal and external environments. Adaptions to disruptions are made swiftly and seamlessly with a focus on generative learning at both individual and organisational levels.
- S4. Leaders and teams will routinely establish new practices and processes that will have currency across other business sectors and geographies. These new practices will be tested and embedded seamlessly to provide superior business results.
- S5. The culture emphasises excellence, it is forward looking, flexible and consistently demonstrates exceptional agility when forecasting and meeting changing circumstances.
- S6. Leaders are highly adaptable, multi-skilled and have excellent organisation knowledge, which they deploy to maximum effect when developing the same high levels of agility and capability within their teams and across the value chain.
- S7. People at all levels in the business are highly adaptable, multi-skilled and have excellent organisation knowledge, which they use to ensure that they consistently work collaboratively across the value chain.
- S8. Disruptions and barriers are seen as opportunities for improvement and the shared value of delivering excellence ensures that the drive to deliver high-value contributions is pervasive.
- S9. Shareholders are confident that the people of the organisation are adaptable and able to move fast to change.

•Section 3: •Part 1 – Overview Analysis







What is Change & Innovation:

Change and Innovation refers to the organisations capability for handling and responding to changes in its external and internal 'operating environment', as well as its ability to proactively initiate ideas for improved performance and changes to products / services to be more effective and successful. This is not just about 'responding' to what changes in the world, it is also about the organisation's ability to create new ideas, capture the potential of those ideas and implement them to change its 'environment'.

IMS Current State – Siloed

- S1. Strategy is likely to make many assumptions of a stable world and will not show a much understanding of longer-term threats or opportunities. Considerable ignorance of competitor activity. Is very unlikely to mention innovation as any part of the organisation's formal strategy.
- S2. With some runs on the board, the innovation team should now be ready to begin spreading the word, building a network of supporters and, most importantly, begin introducing some tools, systems or methods into the infrastructure. The primary aim during this 'teaming/championing' stage is to achieve broad acceptance across the organisation that innovation is a key business process rather than an ethereal, high-risk enemy. It will typically require at least one full-time person to act in the championing/networking/measuring role. At this level capability to handle change is very inconsistent throughout the organisation and hampered by silo boundaries. People within one silo may be planning to implement a change or plan to cope with a managed change but there is no real dialogue, communication or collaboration between the silos in the organisation; so planned change often breaks down and fails at silo boundaries.
- S3. It is crucial during this second stage that the innovation team is able to begin quantifying the improvements being delivered. Solving the measurement credibility problem is perhaps the toughest challenge during this phase. Repeatable success delivery is the primary capability that needs to be demonstrated before advance to the next level is achievable.
- S4. People are substantially left to do things as they have done for years. There will probably be a lot of expert opinion on what is good for customers without any objective evidence from the market or customer feedback. There is a great deal of bowing to experts who are left to do things their way.
- S5. The organisation is very unlikely to have strong unified organisation-wide cultures; so the cultures that exist within teams and specialities will tend to be very inward looking, preserving and maintaining the status of teams and technical specialists.
- S6. Leaders tend to be interested in maintaining the status quo and avoiding any disruption or change which could threaten their own power or status or that of their team. Innovators are likely to be tolerated at best. At worst they are potential trouble-makers who need to be kept under control.
- S7. Innovation skills will be a rarity. Skill sets and mindsets are focused on the present job as it's done now, as it's always been done and as it always will be.
- S8. Safety, predictability, peace, stability, glorification of technical knowledge and expertise, which has a long history behind it.
- S9. This is an organisation where innovation is almost a subversive activity and it is poor at coping with change so any prospective shareholder cannot expect new products or services that are going to help it survive in a changing world. Expecting it to develop new products/services that will capture market dominance is totally unthinkable. Hardly an attractive proposition.

IMS Desired Future State – Transformational

- S1. The organisation is able to proactively venture outside its core skill areas and into other areas. This might well mean spinning off different businesses, but is highly likely to turn the venturing job into a global-scale job. The organisation recognises that there are times when innovation is really important, and then other times when competition slows down and stability becomes the order of the day, and designs the business accordingly. At this level the organisation constantly monitors and assesses its business environment and the world at large so it is not taken by surprise by the need for change. It is constantly outward and forward looking.
- S2. The structure places innovation at the heart of the business. Everyone has a role in delivering innovation. Innovation activity is high profile, fully resourced and communicated to all.
- S3. The innovation process is supported at all stages. From idea to full implementation, every creative activity is explored, communicated, evaluated, explored and tested within a framework of systems that ensures nothing is wasted.
- S4. People constantly challenge, question and propose. People can exchange and communicate freely and without any formal barrier either within the organisation or externally.
- S5. There is a strong organisation-wide culture which places innovation and adaptation at the heart of the business. Innovation is valued as the key to success. The norm is to question how things are done and imagine possible futures.
- S6. Leaders constantly encourage and support people to innovate. Nothing is off limits. Where appropriate, teams are self-directing and drive their own agility and enhancing skills.
- S7. There is recognition that the world cycles through periods of 'punctuated equilibrium', so there are times when stability is desirable and times when disruption and change are needed. The transformational-level organisation can identify when conditions are right for both and manage both. The transformational-level organisation is highly capable of managing change, whether responding appropriately to externally triggered change or initiating change itself.
- S8. Optimism, belief in the future of the business, belief in constant change and improvement, the value of involvement and participation.
- S9. An organisation at this level of innovation is likely to be the best there is at what it does and it has the potential to be world class for the foreseeable future. An excellent investment in the short, medium and long term.

What is Change & Innovation:

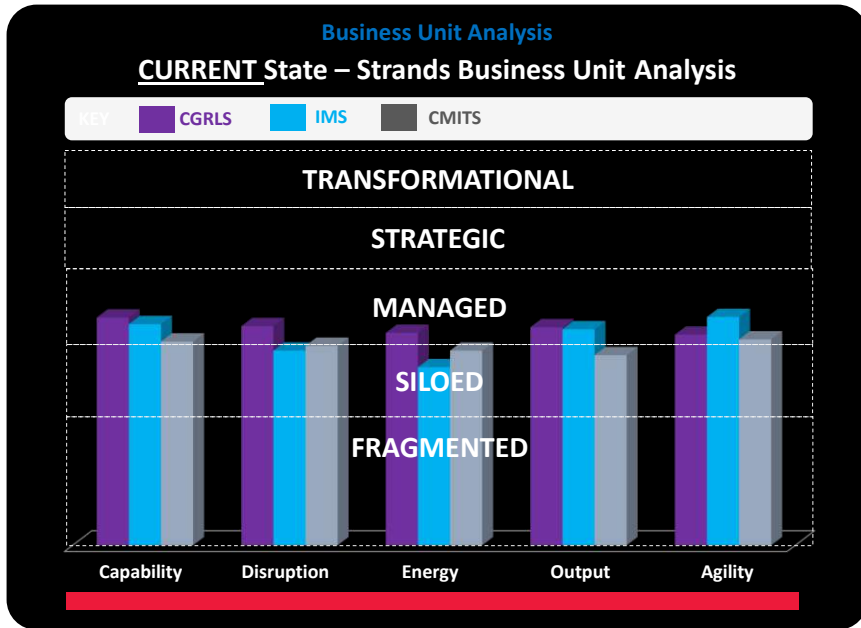
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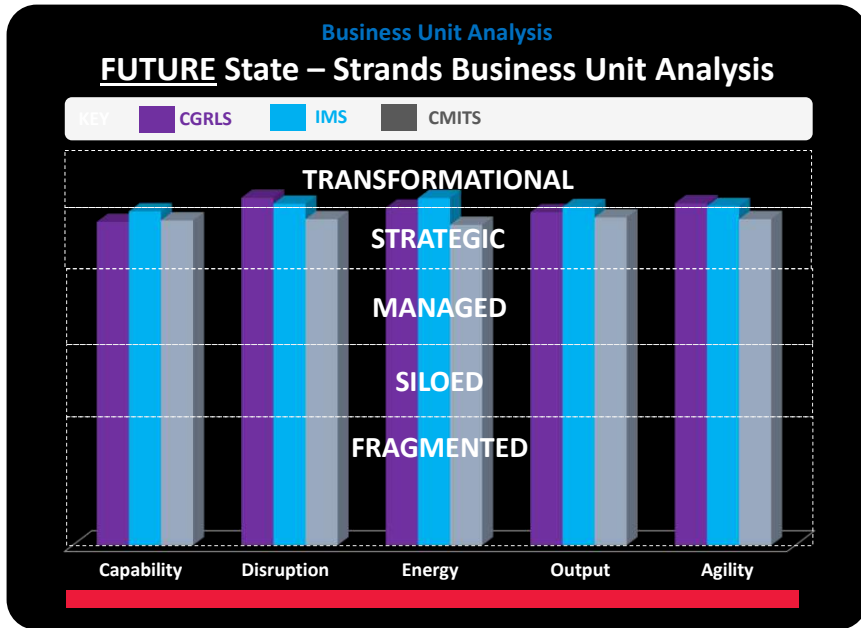
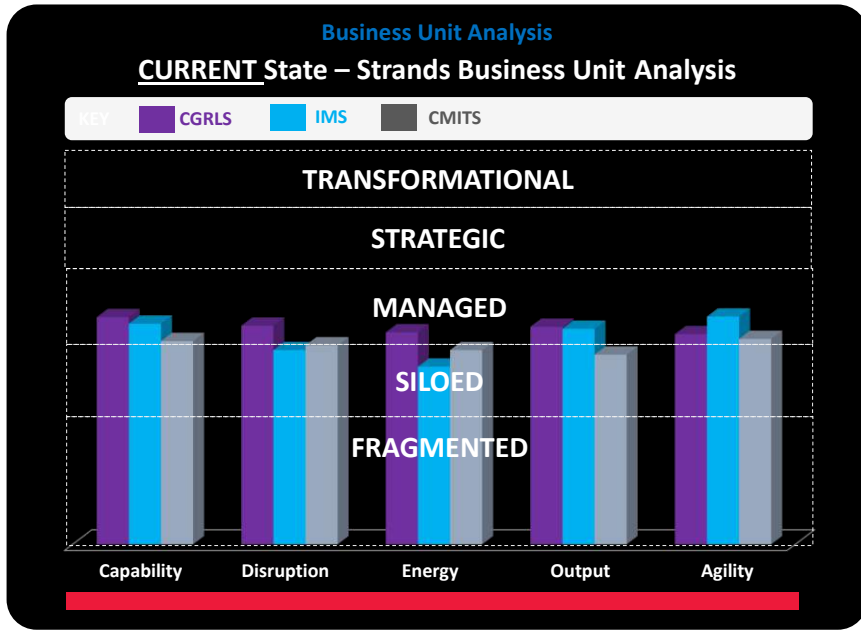
IMS Current State – Siloed

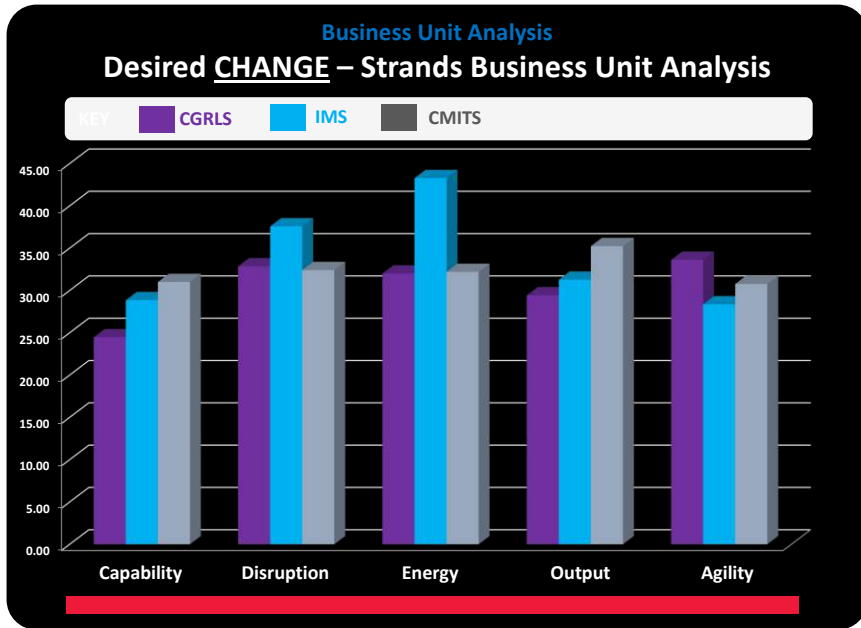
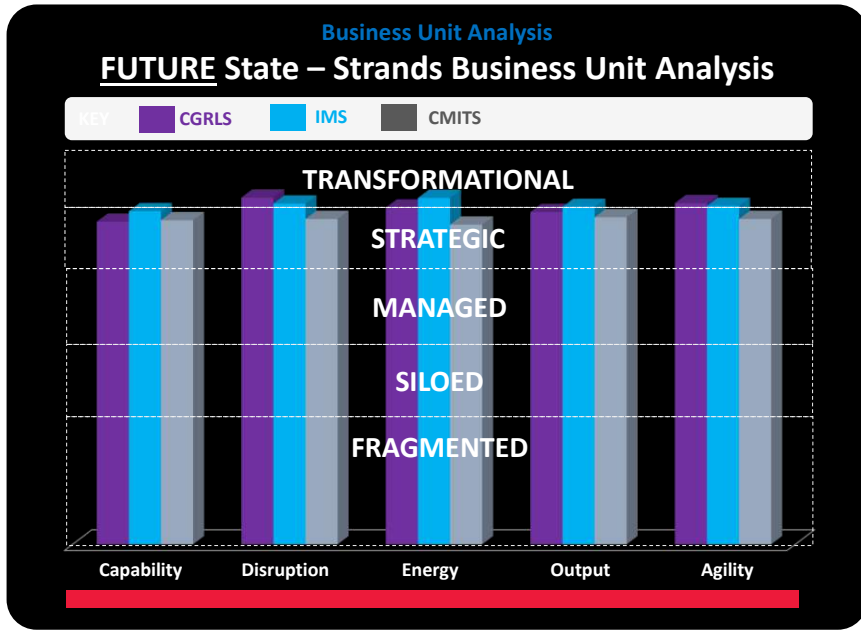
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What is Energy:

An organisation with high levels of energy contains people with commitment and passion for what they do. High energy, means there is visible drive to achieve the desired future state. The high energy enterprise will have people with high self efficacy, people who are confident in their ability to do things and, if they lack skills, confident in their ability to quickly learn new skills. The high energy organisation will have a distinct atmosphere or climate which will be tangible to any observer.

IMS Current State – Siloed

- S1. The organisation tends to be focused on maintaining its market position.
- S2. There is incremental improvement at a functional level. However, not all teams will have strong norms supporting high-energy performance, so energy levels may vary considerably from one team to another. Work is silo-based within the functions and tends to be very task focused. Teams focus on doing what needs to be done and will generally not go the extra mile unless there is an opportunity to test or stretch their technical skills. Energy put into change and improvement tends to dissipate at the point of interface between silos like a wave breaking against rocks. Thanks to the prevalence of silos, there are strong pushes to pass responsibility to others, with typically, the innovation energy being pushed out to a beleaguered R&D department.
- S3. Systems and processes are relatively undeveloped. Company-wide systems and processes are virtually non-existent. Lack of effective communication, information, training, performance management and quality systems fail to energise people so the organisation feels sluggish. People only get excited by things which relate directly to their specialism.
- S4. People may be committed to deliver a good product out of a sense of 'normative commitment' - because there is some pride in the team and some commitment to the functional specialism. This normative pressure not to let the side down will tend to overcome the individualism of level 1 because team norms will start to influence how much energy and commitment people put in to delivering the product. While people may act in ways broadly consistent with the strategy, this is not 'affective' commitment - they are complying with the strategy because there are systems in place to detect non-compliance and resistance and they fear the consequences of being found out. As a result, people tend to do the minimum required to be seen to be implementing the strategy without actually believing in it.
- S5. People work within functions and each function has its own prevailing culture and energy levels, which vary according to the degree of technical knowledge and expertise required at any given moment.
- S6. A policing-style approach by management is used who performance manage to get people to align their individual and team outputs to the strategy/vision. There is a general lack of leadership, management tend to delegate change effort activities and pay lip service to its importance and commitment leading to a lack of enthusiasm. At senior management level 'not on my watch' is the dominant attitude towards any type of radical change or major innovation.
- S7. The skill set is very traditional and fixed. People are used to working within a comfort zone and generally do not react with any zip or energy unless it's something they are very familiar and comfortable with.
- S8. There is recognition that change will inevitably occur and require a response but there is no great energy to embrace change.
- S9. Shareholders and customers are unlikely to believe the organisation can deliver products or services with any evident enthusiasm. This may feel like a 'going through the motions' encounter.

Future State – Transformational

- S1. There is a widespread genuine commitment to the strategy/vision. People enthusiastically work to realise the strategy and bring the vision to reality because they believe it is right and from a self-belief that they can do it. The vision has become self-enabling allowing individuals to express themselves.
- S2. People feel and demonstrate personal accountability for their actions in pursuit of the organisation strategy. People take full accountability, individually and collectively, to deliver requisite excellence. Teams are largely self-driven and work with pace and purpose at all times and engage suppliers and customers in collaborative, high-energy work to challenge boundaries and create new performance paradigms. Resources (time, money, people, etc.) are fully in place or can be found to support the change effort at all levels.
- S3. The business has a common approach to change and improvement that is standardised and continually evolves as new improvements and learning are shared. The company has established a 'generative system', which is self-evolving and linked to the societal system.
- S4. People are engaged in delivering an output regarded as world class, so high energy levels, commitment, belief and passion will be highly visible to customers of that output. There is real, tangible and intangible ownership of the vision; people will engage in championing behaviour such as doing more than is expected or required by managers to achieve the vision. The vision of the organisation has become a personal thing; people feel a direct personal connection between what the organisation is and what it is doing and their own personal beliefs and values.
- S5. An organisation's energy is an exciting, stimulating and challenging environment to work within. There is a self-perpetuating and infectious energy within the business and this is focused on working collaboratively to understand and meet market and societal demands. Leadership and teams are fully engaged and knowledgeable of all or most aspects of the change effort. There is total recognition and acceptance that continuous change is inevitable for the business to succeed. There is an innovation culture throughout the organisation - innovation is seen as at the heart of business success, and the actual and espoused innovation philosophy is identical. People are willing to be fully involved in driving innovations in areas outside their domain knowledge.
- S6. Management is sophisticated enough to recognise that individuals may be more or less receptive to change so the organisation is able to seamlessly assemble the right combination of change agents necessary for the prevailing change challenge.
- S7. An understanding of complex systems means that the organisation is able to make best use of existing resources to ensure that innovation energy is expended as effectively as possible - with an especially keen eye for non-linear opportunities whereby small inputs can be transformed into highly leveraged positive outputs.
- S8. There is a real passion for the business, a belief in the product/service offering and in the organisation itself. People have affective commitment; they believe in the value of what they are doing and hence energy to deliver is very high.
- S9. Shareholders and stakeholders have total confidence the organisation can deliver anything it says it will deliver.

•Section 3: •Part 2 – Detailed Analysis



Business Unit Analysis
All Bases and Strands

Bases	Measurement Strand	CGRLS		IMS		CMITS	
		Current State %	Desired Future %	Current State %	Desired Future %	Current State %	Desired Future %
Strategy & Vision	Capability	60.95	91.43	56.36	86.67	56.19	82.98
	Disruption	53.33	81.90	52.12	78.79	47.50	78.81
	Energy	59.52	90.48	49.70	89.09	54.05	85.12
	Output	57.14	80.48	44.24	83.03	45.60	74.29
	Agility	61.43	84.29	58.18	79.39	59.88	74.52
Change & Innovation	Capability	61.90	85.71	49.09	94.55	56.79	86.43
	Disruption	51.90	88.57	44.24	94.55	56.31	87.50
	Energy	49.52	87.14	55.15	90.30	53.69	83.45
	Output	59.52	84.76	58.18	95.15	57.14	87.98
	Agility	50.48	93.33	52.12	94.55	51.43	85.83
Resources & Leadership	Capability	53.33	79.52	50.91	83.64	46.07	79.29
	Disruption	55.71	89.05	45.45	75.15	45.36	77.02
	Energy	59.52	83.81	40.00	90.30	50.83	82.38
	Output	53.33	77.62	52.12	82.42	44.64	89.29
	Agility	50.00	83.81	55.15	92.12	41.79	86.55
Output & Value	Capability	62.86	84.76	60.61	84.85	54.88	85.83
	Disruption	56.67	92.38	53.33	93.94	54.40	86.31
	Energy	53.81	90.48	49.09	97.58	52.62	86.43
	Output	56.19	87.14	58.79	89.70	49.40	79.40
	Agility	54.29	83.33	69.70	86.06	58.57	85.00
Process & Systems	Capability	52.38	72.38	66.06	77.58	46.79	81.19
	Disruption	62.86	92.86	53.94	94.55	51.67	87.62
	Energy	49.52	80.00	33.94	76.97	37.86	72.62
	Output	52.86	96.19	63.03	82.42	46.43	88.45
	Agility	53.33	92.86	56.97	81.82	51.79	85.36

Business Unit Analysis

5 - CURRENT LOWEST Rated Business Areas

CGRLS - Business Unit		Current State	
		Score %	Band
1	Process and Systems - Energy	49.52	Managed
2	Change and Innovation - Energy	49.52	Managed
3	Resources and Leadership - Agility	50.00	Managed
4	Change and Innovation - Agility	50.48	Managed
5	Change and Innovation - Disruption	51.90	Managed

IMS - Business Unit		Current State	
		Score %	Band
1	Process and Systems - Energy	33.94	Siloed
2	Resources and Leadership - Energy	40.00	Siloed
3	Change and Innovation - Disruption	44.24	Siloed
4	Strategy and Vision - Output	44.24	Siloed
5	Resources and Leadership - Disruption	45.45	Siloed

CMITS - Business Unit		Current State	
		Score %	Band
1	Process and Systems - Energy	37.86	Siloed
2	Resources and Leadership - Agility	41.79	Siloed
3	Resources and Leadership - Output	44.64	Siloed
4	Resources and Leadership - Disruption	45.36	Siloed
5	Strategy and Vision - Output	45.60	Siloed

Business Unit Analysis

5 - CURRENT HIGHEST Rated Business Areas

CGRLS - Business Unit		Current State	
		Score %	Band
1	Output and Value - Capability	62.86	Managed
2	Process and Systems - Disruption	62.86	Managed
3	Change and Innovation - Capability	61.90	Managed
4	Strategy and Vision - Agility	61.43	Managed
5	Strategy and Vision - Capability	60.95	Managed

IMS - Business Unit		Current State	
		Score %	Band
1	Output and Value - Agility	69.70	Strategic
2	Process and Systems - Capability	66.06	Managed
3	Process and Systems - Output	63.03	Managed
4	Output and Value - Capability	60.61	Managed
5	Output and Value - Output	58.79	Managed

CMITS - Business Unit		Current State	
		Score %	Band
1	Strategy and Vision - Agility	59.88	Managed
2	Output and Value - Agility	58.57	Managed
3	Change and Innovation - Output	57.14	Managed
4	Change and Innovation - Capability	56.79	Managed
5	Change and Innovation - Disruption	56.31	Managed

Business Unit Analysis

5 FUTURE LOWEST Rated Business Areas

CGRLS - Business Unit		Future State	
		Score %	Band
1	Process and Systems - Capability	72.38	Strategic
2	Resources and Leadership - Output	77.62	Strategic
3	Resources and Leadership - Capability	79.52	Strategic
4	Process and Systems - Energy	80.00	Strategic
5	Strategy and Vision - Output	80.48	Strategic

IMS - Business Unit		Future State	
		Score %	Band
1	Resources and Leadership - Disruption	75.15	Strategic
2	Process and Systems - Energy	76.97	Strategic
3	Process and Systems - Capability	77.58	Strategic
4	Strategy and Vision - Disruption	78.79	Strategic
5	Strategy and Vision - Agility	79.39	Strategic

CMITS - Business Unit		Future State	
		Score %	Band
1	Process and Systems - Energy	72.62	Strategic
2	Strategy and Vision - Output	74.29	Strategic
3	Strategy and Vision - Agility	74.52	Strategic
4	Resources and Leadership - Disruption	77.02	Strategic
5	Strategy and Vision - Disruption	78.81	Strategic

Business Unit Analysis

5 FUTURE HIGHEST Rated Business Areas

CGRLS - Business Area		Future State	
		Score %	Band
1	Process and Systems - Output	96.19	Transformational
2	Change and Innovation - Agility	93.33	Transformational
3	Process and Systems - Agility	92.86	Transformational
4	Process and Systems – Disruption	92.86	Transformational
5	Output and Value - Disruption	92.38	Transformational

IMS - Business Area		Future State	
		Score %	Band
1	Output and Value - Energy	97.58	Transformational
2	Change and Innovation - Output	95.15	Transformational
3	Change and Innovation - Agility	94.55	Transformational
4	Process and Systems – Disruption	94.55	Transformational
5	Change and Innovation - Disruption	94.55	Transformational

CMITS - Business Unit		Future State	
		Score %	Band
1	Resources and Leadership - Output	89.29	Transformational
2	Process and Systems - Output	88.45	Transformational
3	Change and Innovation - Output	87.98	Transformational
4	Process and Systems – Disruption	87.62	Transformational
5	Change and Innovation - Disruption	87.50	Transformational

Business Unit Analysis

5 Areas of LEAST Desired Change

CGRLS - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Process and Systems - Capability	52.38	72.38	20.00
2	Output and Value - Capability	62.86	84.76	21.90
3	Strategy and Vision - Agility	61.43	84.29	22.86
4	Strategy and Vision – Output	57.14	80.48	23.33
5	Change and Innovation - Capability	61.90	85.71	23.81

IMS - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Process and Systems - Capability	66.06	77.58	11.52
2	Output and Value - Agility	69.70	86.06	16.36
3	Process and Systems - Output	63.03	82.42	19.39
4	Strategy and Vision - Agility	58.18	79.39	21.21
5	Output and Value - Capability	60.61	84.85	24.24

CMITS - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Strategy and Vision - Agility	59.88	74.52	14.64
2	Output and Value - Agility	58.57	85.00	26.43
3	Strategy and Vision - Capability	56.19	82.98	26.79
4	Strategy and Vision – Output	45.60	74.29	28.69
5	Change and Innovation - Capability	56.79	86.43	29.64

Business Unit Analysis

5 Areas of **MOST** Desired Change

CGRLS - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Process and Systems - Output	52.86	96.19	43.33
2	Change and Innovation - Agility	50.48	93.33	42.86
3	Process and Systems - Agility	53.33	92.86	39.52
4	Change and Innovation - Energy	49.52	87.14	37.62
5	Change and Innovation - Disruption	51.90	88.57	36.67

IMS - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Change and Innovation - Disruption	44.24	94.55	50.30
2	Resources and Leadership – Energy	40.00	90.30	50.30
3	Output and Value - Energy	49.09	97.58	48.48
4	Change and Innovation - Capability	49.09	94.55	45.45
5	Process and Systems - Energy	33.94	76.97	43.03

CMITS - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Resources and Leadership - Agility	41.79	86.55	44.76
2	Resources and Leadership - Output	44.64	89.29	44.64
3	Process and Systems - Output	46.43	88.45	42.02
4	Process and Systems - Disruption	51.67	87.62	35.95
5	Process and Systems - Energy	37.86	72.62	34.76

What is Change & Innovation – Disruption

This facet is concerned with the organisation's sensitivity to its external environment, its capacity to recognise when change & innovation is appropriate, needed and the organisation's role in either reacting to events or 'making things happen'. To respond appropriately to change, organisations need to sense when 'disruption' is occurring or likely to occur which necessitates change or provides opportunity.

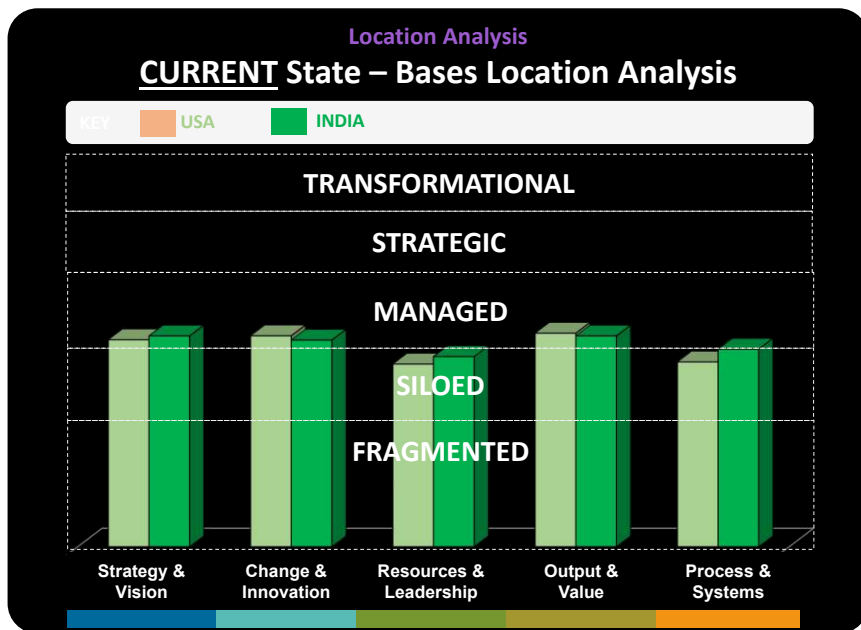
IMS Current State – Siloed

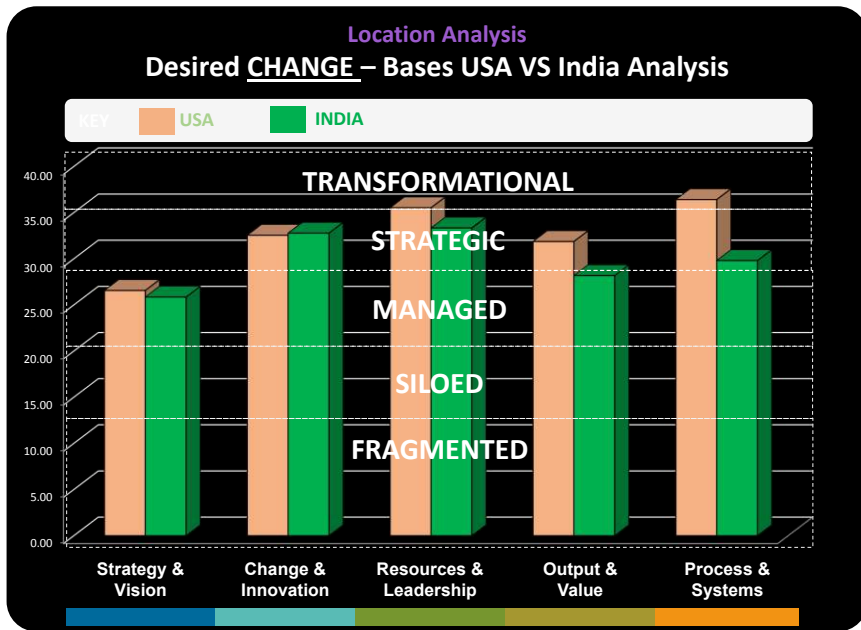
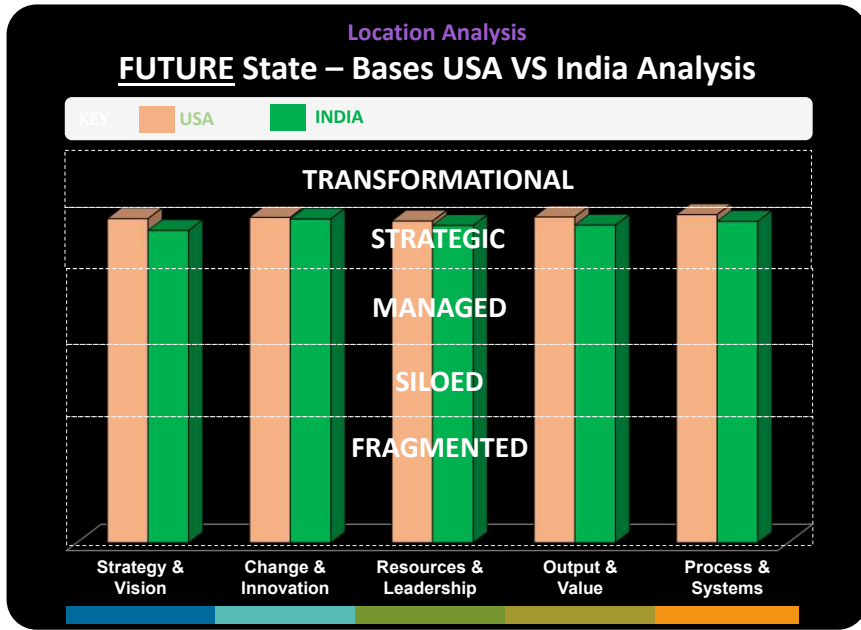
- S1. The organisation still has a reactive stance when it comes to disruption and discontinuous change, but at least it now recognizes the importance of setting up measures to identify when it has happened.
- S2. Although a sensing capability exists, the organisation has not yet understood how to design its response to external change, usually because the silos get in the way.
- S3. There is likely to be a risk-management process in place, albeit one adapted from processes used to manage the day-to-day business, and thus not entirely fit for purpose. Risk management plans are highly likely to be tick-the-box exercises rather than affecting how the organisation goes about its business.
- S4. Small-scale innovation takes place within silos but this does not have the scale or potential to transform the organisation's competitiveness. It is 'tinkering'.
- S5. Some cultures may encourage people to accept change, others will be resistant to change.
- S6. Leaders do not take much interest in innovation that is not directly relevant to their work area. Innovators are viewed with suspicion as possible subversives.
- S7. Only a few people have innovation skills and this is strongly technically focused.
- S8. The values of the organisation encourage people to try to resist change. Continuity and traditional ways of working will be valued.
- S9. Shareholders will not believe the organisation can innovate quickly.

IMS Desired Future – Transformational

- S1. The organisation is inevitably a driver of disruptive change, being fully capable of provoking existing and new markets with the most appropriate business, technical or combined innovation offering. The organisation not only responds to externally triggered change, it is also capable of causing change and disruption itself. The organisation is very likely to describe itself as 'future-proof'.
- S2. Structure is fluid and highly flexible. People at any level can communicate and work with others at any level, inside or outside the organisation, to develop new approaches.
- S3. People are well informed, can communicate easily and formal processes help innovation and change rather than hinder it.
- S4. The ability to manage and lead disruption has become a way of life.
- S5. The culture emphasises the organisation can be anything it wants to be.
- S6. Leaders inspire, challenge and support people to be creative and change.
- S7. Scenario techniques are widely used, intangible factors have become 'science' and the organisation is able to make complex situations work to their advantage - being able to identify the levers that will create the biggest positive impact with the minimum input effort. Strategists understand the implications of 'punctuated equilibrium'.
- S8. The organisation will also actively seek disruptive opportunities. The people of the organisation see change as a dynamic open system that is constantly evolving.
- S9. Stakeholders perceive the organisation as one that sets the pace for others to follow. The organisation can adapt and change its output rapidly in response to disruption.

- Section 4:
- Part 1 – Overview Analysis





What is Process & Systems

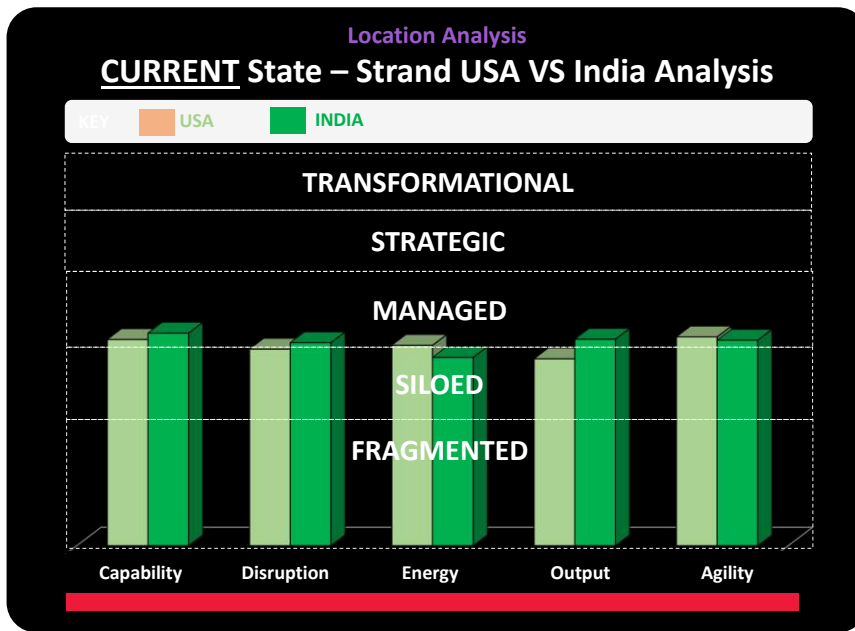
Process and System refers to the operating protocols and infrastructure through which the business intent is translated into reproducible action. Successful businesses have well understood processes and systems, totally aligned with the strategic intent of the organisation. In the successful enterprise, people understand how they should work. They know the methods to be followed in doing work. They know where to find the information they need.

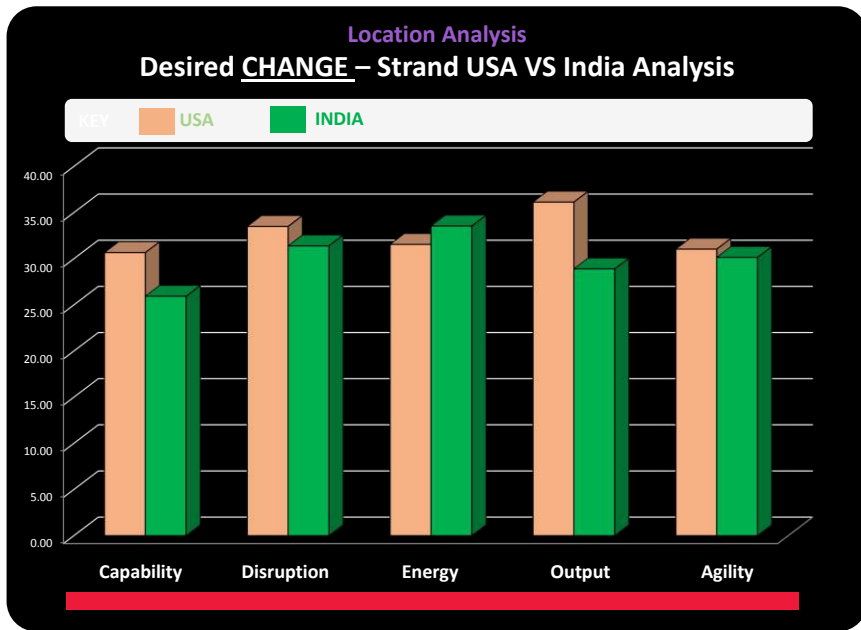
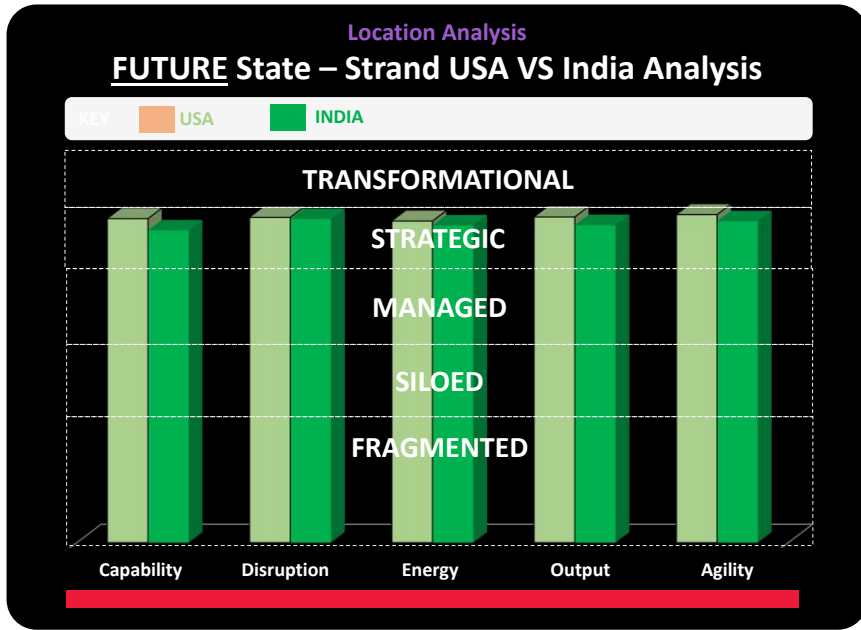
USA Current State – Siloed

- S1. An improvement program exists in generic form. Basic KPIs are used and posted visibly in some business units or functions, but generally operation-wide information and some locally-relevant KPIs are often out of date. Targets are set and progress against them monitored. Deviation needs to be justified or explained away. There is little understanding that the targets might have been set arbitrarily with little appreciation for the overall system.
- S2. Some areas are organised along value streams with first-line managers responsible for entire order entry to delivery process. Span of control is determined by function or historic reason. There is no clear rationale for determination of span of control. A team structure is in place and people will understand their place in the team from an operational perspective. Equipment/teams are rather inflexible to changing demand patterns (e.g. productivity loss if demand changes). A basic or informal job rotation system exists, mainly coordinated by a supervisor, and ensures that there is a backup in case of illness/holidays.
- S3. Common performance measures or KPIs are in place. Benchmarks and visits amongst areas within the operation occur, but the process is not systematically improved. Layout facilitates a logical flow of materials and information. Processes are formally defined. Standard operating procedures (SOPs) exist with flow charts, standards, checklists, procedures and training manuals but are not always enforced rigorously. SOPs tend not to be updated and workarounds will often become frequent.
- S4. Many visual indicators make it easy to spot problems and to gauge plant performance. Some value-stream maps exist, mainly in technical areas. There is some evidence of mistake-proofing but use is not systematic. Quality rates are measured and posted with usually clear improvement targets or action plans. Lines/cells are not optimally balanced. The organisation has standard processes in place; they have begun comparing results, sharing lessons learned and transferring people more easily between project work areas. Examples of formal problem solving (e.g. a PDCA use example) and employee involvement can be found, but they are sporadic and manager-dependent. As a consequence, some silos are viewed as high performers and others the opposite.
- S5. A strong organisational culture emerges based on a common process that covers all the important elements of the business offer.
- S6. Management has developed an overall change strategy and has started introducing the concept (Lean/Six Sigma) to the entire staff. Management knows what activities are parts of the change effort at a general level but few managers are engaged personally, so within management there is a lack of first-hand knowledge of most activities (what was done and why).
- S7. There is evidence of value thinking but elimination of NVA activities is sporadic and rarely systematic. A quality programme is in place and operators are well informed and trained. Improvement teams are formed with a critical mass of employees involved in improvement activities such as Kaizen events. Root-cause problem solving is done occasionally, but not in a systematic approach. Large-scale improvements occur only after a crisis has occurred.
- S8. The organisation is starting to explicitly value the importance of planning and control. People are expected to plan, organise and control work in a structured way.
- S9. Shareholders see the organisation is being driven by data and that processes and systems are being operated. When market conditions are favourable, the organisation will be seen to be doing well; when conditions turn for the worse, shareholders will quickly see that the management don't understand why - or what to do about it. At which point a change in senior management is the most likely get-out.

USA Desired Future – Transformational

- S1. Customers buy (tangible and intangible) outcomes and, as such, all strategy builds from here. All processes and systems in the organisation are in turn built from that strategy.
- S2. The organisation has largely affected the shift from vertical to horizontal (quite possibly in the form of some kind of matrix structure) and has built and matured processes that help manage the various interfaces between different stakeholders. Suppliers are frequently brought in to be a part of change and innovation initiatives.
- S3. Systems and processes are adaptable to changing market and customer needs. People recognise the parallel need for both optimisation and discontinuous step-change skills and know which is the most appropriate activity at any point in time. All processes are geared towards maximisation of customer value.
- S4. Problems are identified early in a new product/service development lifecycle. All functions are open to suggestion and improvement and are willing innovation participants.
- S5. The customer is central to everything the organisation does. Understanding everything about the customer - tangible and intangible - is central to the sustained success.
- S6. Multiple processes, each deployable according to the prevailing organisational circumstances. 'Change is the only constant' is understood and lived by all.
- S7. The parallel concepts of ideal solutions and contradiction-solving have become central to the organisation. The importance of IP as a strategic tool is understood and there is an active IP management plan. A critical mass of people is able to look sufficiently outside the box to see and do something about potential disruptive threats or opportunities for better ways to serve customer needs.
- S8. Systems and processes exist solely to serve customer needs. If those needs aren't being served, there is no need for this process. Risk-management planning is crucial: contingency building means a likely need to be able to build new or re-configure existing processes periodically. Periods of optimisation and discontinuous change will happen one after the other.
- S9. The organisation has highly capable processes and systems and is also highly capable of improvement so it can reliably deliver high value in the short and long term. Customers perceive that they can trust and rely on products and services which are perceived as high value. Therefore, the organisation is a very safe bet for investors.





What is Output:

'Output' refers to the perceived level of value of the output of the enterprise from the perspective of customers and, from the organisation's perspective, whether the costs of delivering this level of value permits the achievement of a satisfactory and sustainable profit margin. Outcomes are both tangible (the good reasons people buy things) and intangible (the real reasons people buy things). Business output needs to appropriately balance both, and beat competition on both. Intangibles can include peripheral outputs which can for example be accounted for in triple-bottom-line CSR activities. Leaders recognise the existence of predictable evolution patterns and the 'untapped potential' in their outputs and have set in place structures and capabilities that systematically seek to commercialise this untapped potential.

USA Current State – Siloed

- S1. Innovation is most likely to be seen as technical rather than business. The organisational focus is on stability and consistency.
- S2. Since there is no joined-up approach to delivering output that has value, the customer is still likely to be dissatisfied with the product/service offering. People focus on managing the outputs required by their task list and concentrate their time and attention within their business function. Work is seen as a series of connected tasks and people are trained to fulfil their role within the context of this chain of tasks. Functional efficiency is possible but is compromised by a lack of collectiveness or consistency across the organisation. Since some areas of the organisation will deliver technical innovation better than others, the output of the organisation as a whole often looks unbalanced.
- S3. Within the organisation, inefficiency and waste are dealt with within functional silos. The organisation is not capable of dealing with waste and sources of inefficiency that occur at silo interfaces/boundaries. Limited consideration is given to the end customer value proposition but rather to the specific outcome/output of the functional area only. At this level some processes are repeatable, possibly with consistent results; however, process discipline is unlikely to be rigorous so high variance in output exists. Inconsistent compliance is the norm. At this level metrics may exist to gauge the likely success of a new product or service against existing customer success criteria but the metrics are unlikely to have been developed by any rigorous, objective market intelligence. They are more likely to be an experts view of what a good new product or service is.
- S4. People show little interest in the organisation output as a whole. The only aspect likely to interest them is their bit – the products/services or parts thereof that their team or silo is responsible for.
- S5. Strong silo cultures will prompt people to show concern for the output of their team or silo. There is little concept of working together to deliver a good organisational output. S6. Leaders are concerned for those parts of the output that they personally or their team is accountable for. Anything else is not really important to them.
- S7. The strong silo-based, technical skill set of the organisation means that the output could be very disjointed. Because the organisation is not working as a whole, the whole product/service experience of customers may be similarly disjointed.
- S8. This is a few know best because we are the experts attitude, which is very dangerous for the survival of the enterprise because, of course, the functional experts might be out of touch or misguided. In effect there is no influencing factor of reasoned evaluation of data from the outside world moderating the opinions of the experts what output is of real value.
- S9. Output is driven by what specific technical functions or individuals think is value, not what a strategic appraisal or market intelligence says is of value to customers. The product range and/or portfolio of services offered by the organisation shows innovation in some areas but none at all in other areas. The output of innovation is still characterised by ad hoc, incremental improvement; the organisation is not delivering dramatically different products or services as a result of its innovation activity.

USA Desired Future – Transformational

- S1. Internal waste and inefficiency is used to generate new value streams that had previously not been considered. These may be both internal as well as external to the organisation as traditional cost centres are flipped into revenue generating, profit centres delivering their own value proposition. The organisation is so advanced in its understanding of current customers that it understands their needs better than most customers know themselves. The organisation is also able to anticipate what potential customers are unable to elicit and scientifically design the tangible and intangibles into whatever form the innovation might take.
- S2. Work flows are fluid and seamless, focussing on the required outputs at a systemic level within the extended enterprise.
- S3. The organisation can be described as being 'lean with muscle'; it is capable of getting value from almost all of its resources. Customer feedback is solicited and used to fine-tune the process routinely. Production and/or service operations are fully pulled by customer demand. As customer demand changes, the organisation has an inbuilt organic ability to evolve to guarantee outputs whilst constantly maximising value. The organisation at this level has a process and system which exists within a learning-innovation-control 'open system', highly responsive to customer needs.
- S4. A genuine interest in and commitment to delivering the best possible output is visible throughout the organisation at all levels and in all areas. People focus on what the organisation is delivering, how customers perceive that output and how they can enhance value themselves.
- S5. Everybody across the business is completely focused on understanding the value chain and continuously enhancing their skills and expertise to add greater value.
- S6. The organisation can consistently deliver output that has high value to customers and can rapidly adapt and change process and systems to meet emerging, unspoken and changing customer needs. The task of designing the most appropriate output for each customer has become a repeatable process.
- S7. Improvement concepts and transformation challenges are understood by a significant majority of the workforce – a learning system is in place. People understand how processes and systems operate and have a sense of urgency and commitment to improve them. Win-win solutions are consistently able to be generated and implemented as people have been taught repeatable methods for achieving them.
- S8. The organisation is customer centric. The output of the organisation is seen globally as the best there is. Its output is the gold standard other organisations benchmark against.
- S9. The organisation is able to shape the market perception of value and has a fluid, responsive organisational structure, processes and systems to consistently deliver value. The key characteristic which distinguishes the organisation is its power to shape what people value - it is no longer simply responsive to the needs of customers, it regularly influences what people think is important in a product and service.

•Section 4: •Part 2 – Detailed Analysis



Location Analysis
All Bases and Strands

Bases	Measurement Strand	USA		INDIA	
		Current State %	Desired Future %	Current State %	Desired Future %
Strategy & Vision	Capability	57.61	83.76	57.85	84.30
	Disruption	45.64	79.83	54.84	77.20
	Energy	57.09	87.35	52.90	84.73
	Output	46.50	74.36	49.89	78.06
	Agility	62.39	76.75	58.71	79.14
Change & Innovation	Capability	59.49	88.21	54.41	85.81
	Disruption	54.19	87.69	52.69	87.10
	Energy	53.50	84.96	51.61	83.66
	Output	55.38	87.86	58.49	86.88
	Agility	51.79	88.38	51.61	89.25
Resources & Leadership	Capability	46.67	77.44	50.54	81.72
	Disruption	46.67	80.34	49.03	79.78
	Energy	54.02	82.39	48.17	85.38
	Output	46.15	89.23	52.26	80.43
	Agility	44.10	85.81	47.31	86.67
Output & Value	Capability	56.75	87.86	56.99	81.29
	Disruption	55.04	88.03	53.55	87.31
	Energy	56.07	90.26	49.46	85.16
	Output	48.38	83.76	54.62	80.86
	Agility	61.54	87.18	59.57	80.43
Process & Systems	Capability	47.69	84.27	56.77	73.12
	Disruption	54.19	87.35	53.98	89.68
	Energy	40.00	73.50	42.80	73.76
	Output	46.67	88.55	53.33	86.88
	Agility	51.79	88.72	50.11	82.58

Location Analysis

5 - CURRENT HIGHEST Rated Business Areas

USA – Location		Current State	
		Score %	Band
1	Strategy and Vision - Agility	62.39	Managed
2	Output and Value - Agility	61.54	Managed
3	Change and Innovation - Capability	59.49	Managed
4	Strategy and Vision - Capability	57.61	Managed
5	Strategy and Vision - Energy	57.09	Managed

India - Location		Current State	
		Score %	Band
1	Output and Value - Agility	59.57	Managed
2	Strategy and Vision - Agility	58.71	Managed
3	Change and Innovation – Output	58.49	Managed
4	Strategy and Vision – Capability	57.85	Managed
5	Output and Value - Capability	56.99	Managed

Location Analysis

5 - CURRENT LOWEST Rated Business Areas

USA – Location		Current State	
		Score %	Band
1	Process and Systems - Energy	40.00	Siloed
2	Resources and Leadership - Agility	44.10	Siloed
3	Strategy and Vision - Disruption	45.64	Siloed
4	Resources and Leadership - Output	46.15	Siloed
5	Strategy and Vision - Output	46.50	Siloed

India - Location		Current State	
		Score %	Band
1	Process and Systems - Energy	42.80	Siloed
2	Resources and Leadership - Agility	47.31	Siloed
3	Resources and Leadership - Energy	48.17	Siloed
4	Resources and Leadership - Disruption	49.03	Siloed
5	Output and Value - Energy	49.46	Siloed

Location Analysis

5 FUTURE LOWEST Rated Business Areas

USA – Location		Future State	
		Score %	Band
1	Process and Systems - Energy	73.50	Strategic
2	Strategy and Vision - Output	74.36	Strategic
3	Strategy and Vision - Agility	76.75	Strategic
4	Resources and Leadership – Capability	77.44	Strategic
5	Strategy and Vision - Disruption	79.83	Strategic

India - Location		Future State	
		Score %	Band
1	Process and Systems - Capability	73.12	Strategic
2	Process and Systems - Energy	73.76	Strategic
3	Strategy and Vision - Disruption	77.20	Strategic
4	Strategy and Vision - Output	78.06	Strategic
5	Strategy and Vision - Agility	79.14	Strategic

Location Analysis

5 FUTURE HIGHEST Rated Business Areas

USA – Location		Future State	
		Score %	Band
1	Output and Value - Energy	90.26	Transformational
2	Resources and Leadership - Output	89.23	Transformational
3	Process and Systems - Agility	88.72	Transformational
4	Process and Systems - Output	88.55	Transformational
5	Change and Innovation - Agility	88.38	Transformational

India - Location		Future State	
		Score %	Band
1	Process and Systems - Disruption	89.68	Transformational
2	Change and Innovation - Agility	89.25	Transformational
3	Output and Value - Disruption	87.31	Transformational
4	Change and Innovation - Disruption	87.10	Transformational
5	Process and Systems - Output	86.88	Transformational

Location Analysis

5 Areas of LEAST Desired Change

USA – Location		Current State Score %	Future State Score %	Desired Change Score %
1	Strategy and Vision - Agility	62.39	76.75	14.36
2	Output and Value - Agility	61.54	87.18	25.64
3	Strategy and Vision - Capability	57.61	83.76	26.15
4	Strategy and Vision - Output	46.50	74.36	27.86
5	Resources and Leadership - Energy	54.02	82.39	28.38

India - Location		Current State Score %	Future State Score %	Desired Change Score %
1	Process and Systems - Capability	56.77	73.12	16.34
2	Strategy and Vision - Agility	58.71	79.14	20.43
3	Output and Value - Agility	59.57	80.43	20.86
4	Strategy and Vision - Disruption	54.84	77.20	22.37
5	Output and Value - Capability	56.99	81.29	24.30

Location Analysis

5 Areas of **MOST** Desired Change

USA – Location		Current State Score %	Future State Score %	Desired Change Score %
1	Resources and Leadership - Output	46.15	89.23	43.08
2	Process and Systems - Output	46.67	88.55	41.88
3	Resources and Leadership - Agility	44.10	85.81	41.71
4	Process and Systems - Agility	51.79	88.72	36.92
5	Change and Innovation - Agility	51.79	88.38	36.58

India - Business Unit		Current State Score %	Future State Score %	Desired Change Score %
1	Resources and Leadership - Agility	47.31	86.67	39.35
2	Change and Innovation - Agility	51.61	89.25	37.63
3	Resources and Leadership - Energy	48.17	85.38	37.20
4	Output and Value - Energy	49.46	85.16	35.70
5	Process and Systems - Disruption	53.98	89.68	35.70

What is Resources & Leadership – Output

This facet focuses on the degree of consistency of key product and core process knowledge across the business. At one extreme, the business may be heavily reliant on a few core 'knowledge workers' who hold the essential knowledge needed to make the product / deliver the service or manage the process. At the other extreme, this key competitive knowledge can be dispersed among many people in the organisation, shared effectively between them and kept in a secure form so it is not lost if individuals leave the organisation.

USA Current State – Siloed

- S1. The organisation strategy is not a major consideration for many people across the business as they tend instead to focus on the output of their team or division. Outputs tend not to be aligned or coordinated.
- S2. Cross-functional work does occur but only in response to an identified requirement which is addressed by functional knowledge holders, each bringing their technical expertise to bear on the problem in hand.
- S3. There is a degree of coordination within functions, and processes are mapped out to drive consistency of process and consistency of output. There are, however, still areas where mapped-out processes are not followed.
- S4. People focus on the output of the team or division, not the organisation output; the overriding concern is to deliver 'our bit' with limited interest being expressed in the overall organisational output.
- S5. Output is focused at team and functional level and provides a cohesive team at the task level, but is generally weak at the organisational level.
- S6. Leaders are concerned with the output of their team or division and show little interest in any other aspect of the output they are not responsible for directly.
- S7. Skills development and deployment is focused at team and functional level and provides a cohesive team at the task level, but generally weak at the organisational level.
- S8. Competition between technical experts is common and shared values tend to be locally or parochially focused, resulting in inefficiencies.
- S9. Shareholders will perceive variation in the output of the organisation and so have varying and inconsistent outputs.

USA Desired Future – Transformational

- S1. People are completely focused on and committed to achieving the output of the organisation. Outputs are measured through the value chain, both internally and externally, and people place significant attention on ensuring a coordinated and aligned output.
- S2. Teams are high-performing as the norm and there is a personal accountability to deliver throughout the business. Outputs are measured on a range of levels and throughout the extended value chain.
- S3. Work flows are fluid and seamless, focusing on the required outputs at a systemic level within the extended enterprise. Working practices and behaviours set the market datum point as does the actual deliverable.
- S4. People work together seamlessly and fluidly across all parts of the business and extended value chain to deliver the output. Perceived barriers are addressed swiftly in a coordinated and aligned manner. S5. The culture inspires exceptional performance from all parties within the value chain to consistently achieve the best possible output.
- S6. Leaders focus on the organisational output and work collaboratively throughout the extended value chain to ensure that the culture of excellence is embedded and sustainable at all levels.
- S7. Highly effective skills development focused on the output of the organisation is embedded and quality outputs set the datum point for competitors.
- S8. A very strong performance ethic is evident throughout the business and this is focused through collaborative endeavours to deliver a future-focused and market-leading business.
- S9. Shareholders have confidence that the people of the organisation will deliver high-value output.

About: The Model Client Telephone Interviews

- As part of the Analysis we completed 5 telephone interviews in which all 5 respondents were from the Business Unit 1.
- The information provided was done so in a confidential manner and as such all information/feedback has been anonymised and contains no names or information which can be directly associated to any individual.
- However all the information provided is done from a personal viewpoint and is not guaranteed to be a fully accurate representation of the Client business, business unit or geographical location.
- This narrative based information which was obtained through the interviews is provided to give Client insight into the thoughts of leaders. This is for the benefit of the organisation and should be respected as such.

**Please note: The quantitative information provided within the telephone interviews as be included within previous relevant analysis.*

Telephone Interviews

Strategy & Vision - Key Narrative Feedback

Capability:

"Response time to change in the market is good. We have the ability to sense what is coming up in the market. There are certain pockets where it is done very well and certain pockets where not so well."

"In the last 3 years we have been hugely strategic and changed direction, being very sharply focused and defined."

Disruption:

"Certain area's/pockets are able to respond strategically to disruption, but other area's may not be so invested and thinking strategically."

Energy:

"In all the companies that I have been with, I don't think I have ever worked for a leadership team that have as much energy as the Client leadership."

Output:

"The core board have certain criteria on how they want to grow the business but doesn't get connected with the operations at ground level."

Agility:

"We react quickly and are nimble. We have the ability change."

"The organisation does not want to go out and make things happen unless there is an opportunistic way to do it. Opportunistic meaning we are often 12 months behind."

Telephone Interviews

Change & Innovation - Key Narrative Feedback

Capability:

"Change and Innovation is in our DNA"

Disruption:

"What we lack is the technology orientation when thinking of disruption. What can we automate, what can we digitalise. We are not yet equipped in that area on an organisational scale."

"Each silo waits for something to happen before it thinks about reacting or putting something in place"

Energy:

"Once something is decided upon it can take a long time to put a strategy in place."

Output:

"Internal marketing is very good and spins out a lot of material in a very short time"

Agility:

"Too much work to take a step back, respond to the market, become transformational and sense what is going to happen in the market before it happens."

Telephone Interviews

Output & Value - Key Narrative Feedback

Capability:

"Effort is there but people still working in siloes. The organisation needs to be more collaborative and learn to adapt what is being delivered more efficiently and effectively."

Disruption:

"Client are not ones for causing disruption in the marketplace".

Energy:

"Energy is there at a silo level, rather than a strategic, horizontal, end to end servicing level"

Output:

"Accenture advertise heavily (using Tiger Woods) which brings them clients, whereas you rarely see Client advertising."

Agility:

"Feedback from customers is taken on board. We act very fast and positive to customer requests/demands and we do a good job of it."

Telephone Interviews

Resources & Leadership - Key Narrative Feedback

Capability:

"Competitors may throw 400 bodies at something new, whereas Client may only throw 10 or 20. It's about scale... if you're going to do this you have to invest heavily."
"Collaboration is an issue, it has to be reminded over and over again."

Disruption:

"Flexibility of an area can depend on the level on investment in that area. Certain business units with more investment are more able to bring in resources and leverage external resources to be more adaptable and flexible to come with disruption."

Energy:

"Leaders are great at building up the energy of the workforce and motivating them."
"The passion and energy of the leadership is very infectious."
"Every time I come from speaking with Tiger or Amit, I am twice as passionate as I was before I went in!"

Output:

"We are focused on what we are good at, rather than what we could be good at."

Agility:

"We need to adopt a more change agent culture and understand the market impacts around how we could develop and grow as a company."

Telephone Interviews

Process & Systems - Key Narrative Feedback

Capability:

"Employees have a deep understanding of the processes and systems that are in place"
"Some of our internal systems need to be strengthened"

Disruption:

"I want Client to get to the point where disruptions in the market do not cause disruptions in the organisation."

Energy:

"Great leadership, very passionate and opportunistic. There are quite a few people in the organisation, even at my level and below that are very aligned and passionate."

Output:

"We should speak to our customers and ask what they would like to see as a final output. Then we can collate that info and look to see if we can change the process to meet this."
"We need to practice what we preach"

Agility:

"Processes and systems aren't reviewed regularly – It's more when someone high up decides that something needs to be done."
"If there is a customer request to change something, it is looked at very closely and very quickly."

Telephone Interviews

General/Other - Key Narrative Feedback

Other General Feedback:

"I'm glad collaboration was picked up as a focus area in the sales meet as this is an area that will take us from where we are to the next level. Otherwise we could fail."

"If we begin to bundle together certain areas, such as process expertise, analytics and technology, we will create extremely unique offerings."

"If they opened the door more to a wider environment outside of Client they would get more insight and vision into what they need to do, instead of employing same types of people."

"Client is same group of people relying on external advisors to make major decisions."

"When it grows to a 5/6 billion dollar company, how we currently operate just won't work. We are stronger than 3 years ago but we haven't made the giant leap."

"Too much focus on metrics. Doesn't allow people to step back and analyse."

"8 times out of 10 Client take the safe route. Not very good at making big bets."

Appendix 13 : TransformationDNA® Business Current Analysis

Welcome to the TransformationDNA® CURRENT STATE Online Analysis.

This measures your view of where you think your organisation is CURRENTLY POSITIONED. It will contribute towards the overall measurement of your organisation's current state.

This Analysis contains 25 Questions. These are presented in 5 pages with 5 questions on each page. Each page represents one of the five following categories.

1. Strategy & Vision
2. Change & Innovation
3. Resources & Leadership
4. Output & Value
5. Process & Systems

Each question has 5 possible answers. Please choose the one that best fits your organisation IN ITS CURRENT OPERATING STATE.

Note: You must answer all questions to complete this analysis.

Note: If you accidentally exit the page on the analysis, just simply click on the link in your email to be redirected back to the last page you were on.

This analysis should take you no more than 30 minutes to complete.

All data collected is kept anonymous. Please refer to our Terms and Conditions below regarding data protection.

There are 25 questions in this analysis

STRATEGY & VISION

1 [1]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- There is a business strategy but it is operationally led with a tendency to follow the market.
- There is no unifying vision or strategy for the organisation.
- The organisation has well developed systems in place for detecting changes in the marketplace.
- There is an aligned strategy and business initiatives drive the direction and priorities for strategic activity.
- The vision and strategy for the organisation are clear, compelling and inspirational and the business is clearly transformational.

2 [2]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- The strategy is not sufficiently robust to deal with unexpected pressures or changes.
- The organisation is not only a driver of disruptive change, but responds flexibly and fluidly to changes which it sees as opportunities.
- The organisation has a very well developed strategic management capability and can adapt and change strategy swiftly and effectively.
- Disruptions and change are addressed at a tactical level or within functional teams leading to a disjointed approach.
- The organisation has structures in place to detect disruption or change in the external environment and is able to respond appropriately.

3 [3]

Which of the following best describes your organisation at the current time?

*

Please choose only one of the following:

- There are high levels of commitment and engagement and people drive for success with passion and determination.
- There is evidence of enthusiastic compliance and pockets of commitment across the business. People strive to do well.

- People focus on delivering to plan and do not seek to excel if it means challenging the status quo.
- There is a compliance with the strategy at a team level but not necessarily across business processes beyond the team level.
- People work enthusiastically to deliver the strategy and there is real and tangible ownership and championing of goal delivery.

4 [4]

Which of the following best describes your organisation at the current time?

*

Please choose only one of the following:

- The business demonstrates capability to deliver its goals in a coordinated manner with continually improving output.
- People comply with the strategy that has been handed down because that is the way it is done.
- The strategy is complied with to achieve output but the approach is disjointed and overly tactical.
- There is a clear and fuzzy strategy that is highly adaptive in meeting customer needs and anticipating and/or creating market change.
- There is an advanced strategic capability to deal with customer needs and emergent trends within the marketplace.

5 [5]

Which of the following best describes your organisation at the current time?

*

Please choose only one of the following:

- The culture emphasises the importance of adaptability to meet changing conditions and inherently values flexibility.
- A culture of customer focus exists but at a team level.
- The organisation has an empowering culture which informs, involves and encourages people to act to deliver the strategy.
- There is a common view that the organisation can struggle on without the need for a long-term plan.

Customer focus and the level of collaborative working creates a culture where people are willing to work together to achieve business goals.

CHANGE & INNOVATION

6 [1] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

The innovation strategy is very proactive and the business ventures into disparate functional and business domains.

There is no formal strategy for innovation in the organisation.

Technical innovation occurs but is likely to be influenced by fads from the marketplace and unlikely to be at a business level.

Innovation is externally focussed on new and merging customer and non-customer needs.

Innovation tends to be focused on what the organisation is good at rather than what the market necessarily needs.

7 [2] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

Small scale innovation takes place but generally at the level of 'tinkering'.

Innovation takes place around the needs of valued customers to enhance product and service levels.

People view innovation with suspicion and change tends to be feared.

Innovation skills are highly developed and the organisation is able to make complex situations work to its advantage.

Many people in the organisation are actively engaged with innovation in many forms.

8 [3] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

Energy levels vary by function and are driven by the degree of technical expertise required at any time.

Energy levels to deal with disruption are measured at a business level and disruption or change invokes a coordinated response.

- There is a lack of energy in the organisation to fight change which is seen in a negative light.
- Innovation is seen as the heart of business success and the actual and espoused innovation philosophies are identical.
- Change is welcomed and the organisational energy has an entrepreneurial dimension.

9 [4] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- The strategy is to be the very best in the market and to continue that position into the future – change capacity is central to the strategy.
- The strategy focuses on innovation but designing solutions for identified opportunities is prone to failure.
- The strategy recognises the importance of innovation for higher value output although this is targeted in specific product areas.
- The organisation has no plan to use feedback (customer or other) in designing new products.
- The strategy does not clearly identify how output and customer information will be used to focus innovation efforts.

10 [5]

Which of the following best describes your organisation at the current time?

*

Please choose only one of the following:

- People will respond to change within their comfort zone but there is a high degree of blaming others.
- Firefighting is the normal response to change.
- People act with energy and pace to get new ideas implemented in the business.
- People cope well with planned change but disruptive change tends to cause paralysis in the system.
- People grasp opportunities quickly and constantly challenge, question and propose new ideas.

RESOURCES & LEADERSHIP

11 [1]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- Managers focus primarily on developing capability to do what needs to be done so learning is transactional.
- Leaders are focussed on developing task and leadership capability and recognise the importance of emotional intelligence.
- There is limited focus on development unless it is to address the immediate needs of the task in hand.
- Leaders exhibit high levels of self-awareness and drive to learn and encourage others to do the same.
- Leaders across the business challenge themselves and others to continually learn and develop new skills.

12 [2]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- Disruption within the business is interpreted from within functional silos by subject matter experts.
- Disruption is expected and people in positions of authority are encouraged to deal with it in an aligned and coordinated manner.
- Communication lines are flexible and people are encouraged to work collaboratively and are empowered to deal with disruptions.
- The business is not effectively structured to deal with disruption and responses tend to come from traditional knowledge holders.
- People are accountable for dealing with disruption and follow the principle of 'fail fast and learn quickly'.

13 [3]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- Internal boundaries between functions are clear but cross-functional working is the norm.
- Teams work with pace and purpose and engage suppliers and customers in high energy work to create high value performance.
- Energy is directed to delivering tasks as opposed to understanding and delivering the strategic goals of the business.

Work is silo based and tends to be task focussed so cross-functional opportunities are missed or ignored.

People from all disciplines and functions work collaboratively to understand and deliver customers' requirements.

14 [4] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

Knowledge holders are held in high regard and tend to focus their activities on their field of interest and expertise.

Shared values focus on working together to deliver added value outputs and a harmonious working environment.

A strong performance ethos is evident throughout the business and is focussed to deliver a future oriented and market leading position.

Competition between technical experts is common and shared values tend to be locally or parochially focused.

Shared values interlink task and process management and hold efficiency and effectiveness in equal regard.

15 [5] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

Leaders are responsive to change and will modify work practices and processes accordingly with a task or technical focus.

Leaders are focused on developing the capability and capacity to deal with change as and when required.

Leaders focus on the task in hand and follow routines and procedural guidelines to ensure task delivery.

Leaders are highly adaptable, multi-skilled and have excellent organisational knowledge which they deploy across the end-to-end processes.

Leaders are able to swiftly adapt their behaviours to meet the changing demands placed upon them.

OUTPUT & VALUE

16 [1] Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- There are basic statements about the need to deliver value but there is limited consistency in translating these into operational plans.
- The strategy recognises the importance of customer satisfaction and customer perceptions of value.
- The business commits to achieving high value outputs by collaborative working and forward thinking.
- The business strategy is concerned with managing the status quo with no real desire to deliver incremental improvements.
- Initiatives are launched to constantly challenge and disrupt the status quo and thereby secure market leadership.

17 [2]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- The organisation is boundary-less – there are no internal silos and different functions are highly permeable.
- The business is strongly divided into functional silos and disruption in silos is dealt with locally rather than across the business.
- Structures are highly ineffective in coping with disruption and people do not work effectively together to deal with change.
- The business has begun to recognise and learn to cope with conflicts and difficult interfaces between functional silos.
- People recognise that delivering a high value product can only be achieved by actively breaking down silos and removing barriers.

18 [3]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- Skill levels are highly variable which means that output levels vary in consistency.
- Leaders work to drive a consistent approach and energy across the business to ensure value is delivered.
- There are different levels of energy and commitment across the business due to inconsistent leadership approaches.
- Leaders inspire and motivate at all times and teams are largely self-directing and very self-motivated.

Leaders communicate enthusiasm and belief in the delivery of the right customer outcomes and benefits.

19 [4]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

The business tends to have a delayed reaction to changes which results in decreased output levels.

The ability to respond with agility is based on planning, modelling and a prior knowledge of domain scenarios.

The business looks ahead in systematic ways and analyses current and anticipated trends so that it can respond quickly.

Functional silos can react to change but a coordinated business-wide approach is unusual.

The organisation responds with total flexibility and fluidity within a market place it has largely shaped itself.

20 [5]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

Leaders work across organisational boundaries to secure highest value outputs.

Leaders empower people to make decisions and act and agility is seen as a primary driver of success.

Leaders will show concern to manage output only if it impacts upon their team and their overall focus is stability.

Leaders tend to focus on what interests them personally and will not consistently drive performance.

Leaders will act to improve the output and the contributions of their teams.

PROCESS & SYSTEMS

21 [1]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

Some areas of the business are organised along value streams or processes but this is not the norm.

There is a clear hierarchical structure with separate business units arranged to maximise efficiency of delivery to customers.

- Functional divisions in the organisation cut across value streams or processes and there is limited process management across functional boundaries.
- The business is structured around customer-oriented value streams or processes with clear process management support.
- The silos have been replaced by a value focused structure that delivers excellent service at a holistic level.

22 [2]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- The hierarchical structures make it difficult for the business to adapt to sudden, non-linear change.
- The business is able to seamlessly re-organise or re-structure to accommodate internal and external disruptions or change.
- Strong internal divisions make it difficult to alter business process or systems.
- Structures still cut across value streams but there is an improved approach to coordination within the technical functions.
- The structure facilitates major changes to processes and new structures are built around key processes and value streams.

23 [3]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- Energy is evident within the functions or teams but tends to dissipate at the points of interface with other areas of the business.
- Functional teams work with passion and enthusiasm and coordinate with their immediate upstream and downstream partners.
- Successful business units have high morale and this is maintained through collaboration across the various functions to deliver value.
- The business operates collaboratively meaning energy is routed through the end-to-end processes to deliver customers' needs.
- The structure is continually in a flow state and everyone is a willing, engaged and committed participant.

24 [4]Which of the following best describes your organisation at the current time? *

Please choose only one of the following:

- The business is looking towards delivering customer value although this tends to be delivered through vertical integration.
- Structuring tends to be focused around tasks within departments and not along value streams or processes
- Structures are built around end-to-end processes and deliver seamless and flexible service to customers .
- The predominant management and business processes are 'push' although evidence of flow is emerging in some business units.
- Business structures are largely strategic and suppliers are seen as important contributors to performance.

25 [5]

Which of the following best describes your organisation at the current time?

*

Please choose only one of the following:

- Change is a necessary aspect of doing business - design and control of change is a clear management responsibility.
- The culture emphasises customer focus and continuous improvement .
- Lack of a strong organisational culture inhibits agility in changing processes and systems – some will change whilst others will not.
- A culture of common practice is emerging and there are increasing levels of coordination across business functions.
- The organisation is adaptive, and shapes the market with a consistent focus on delivering excellence throughout the end-to-end processes.

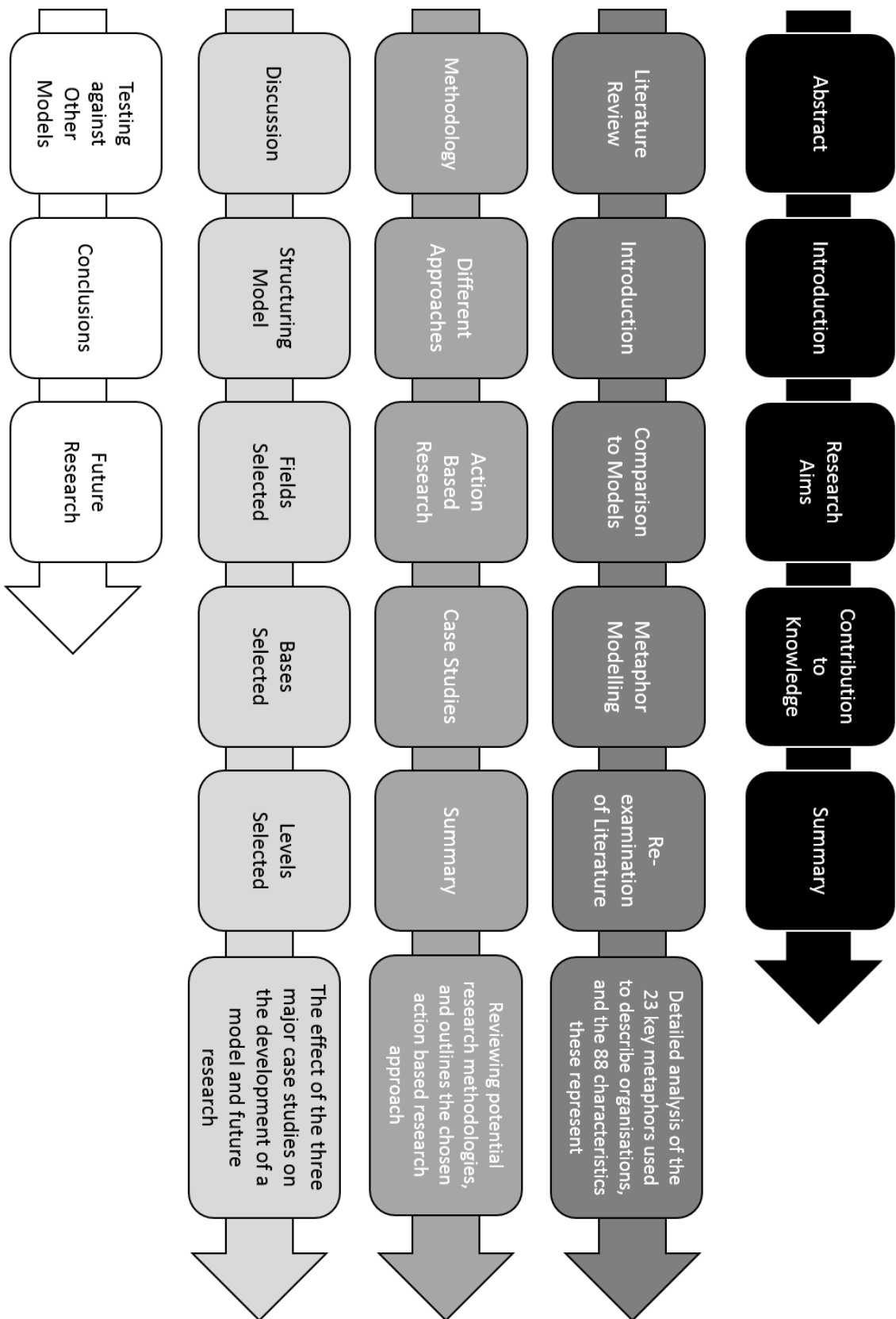
Thank You for completing this CURRENT STATE Analysis.

31.12.2015 – 19:00

Submit your analysis.

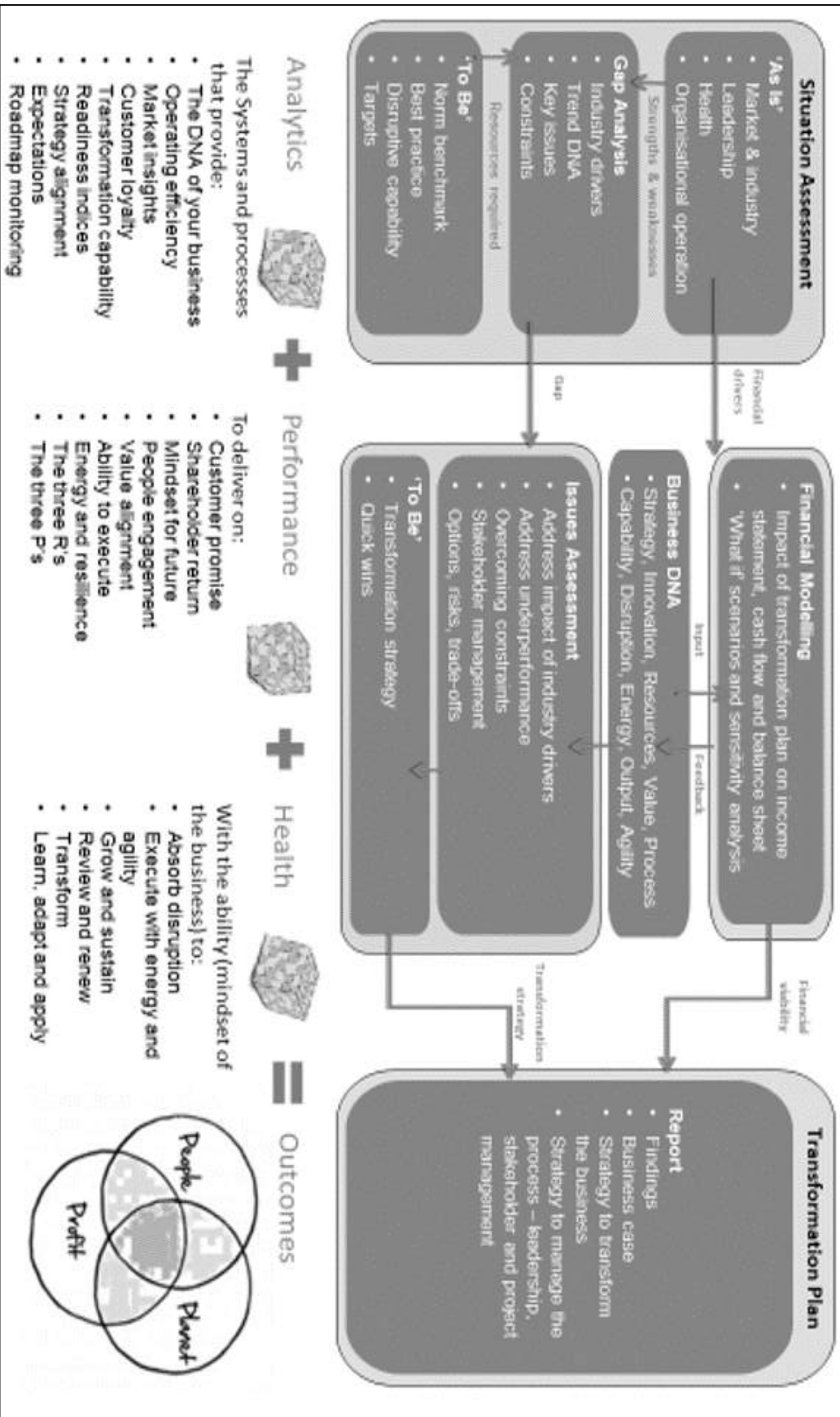
Thank you for completing this survey.

Appendix 14: Expanded Figures

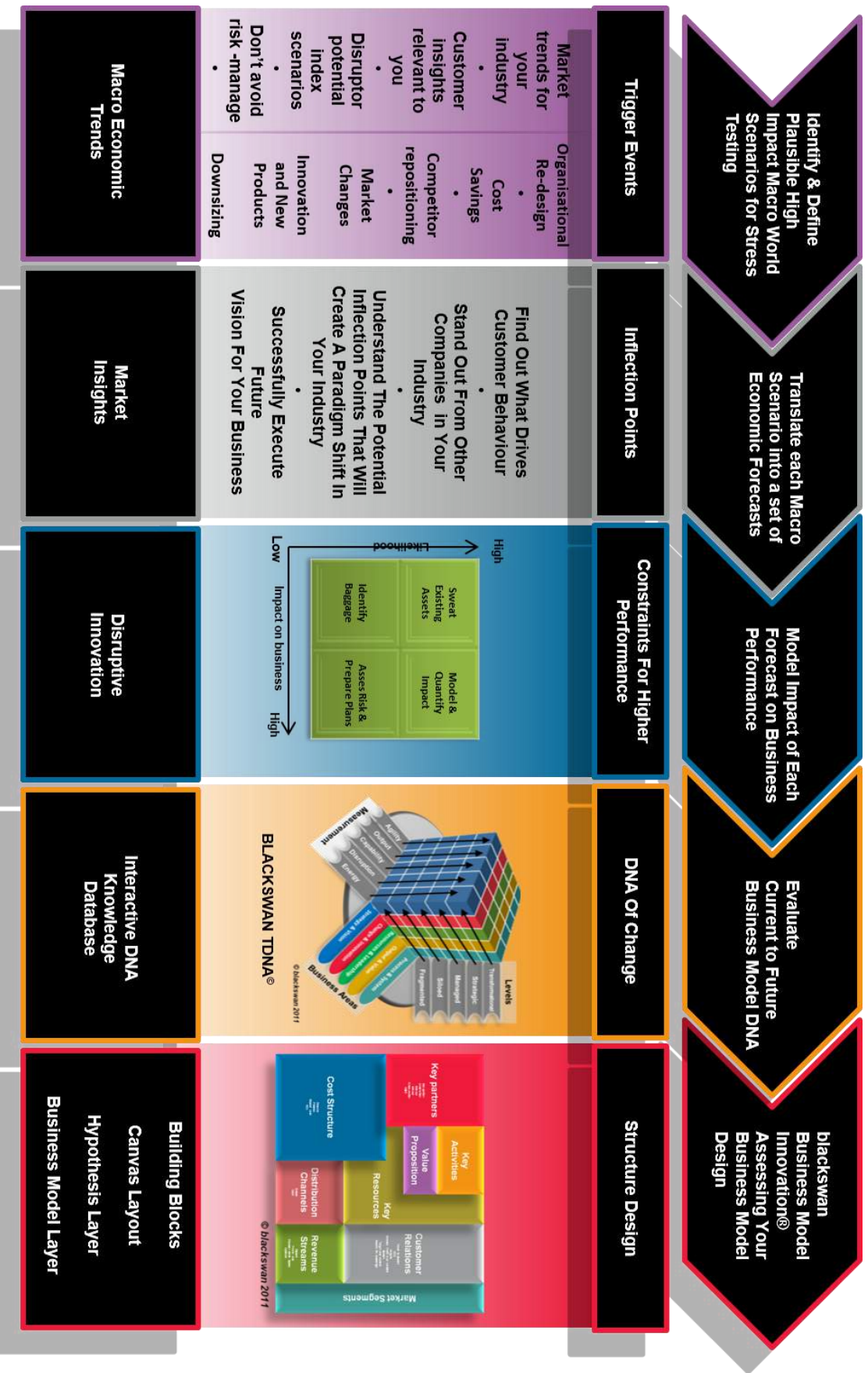


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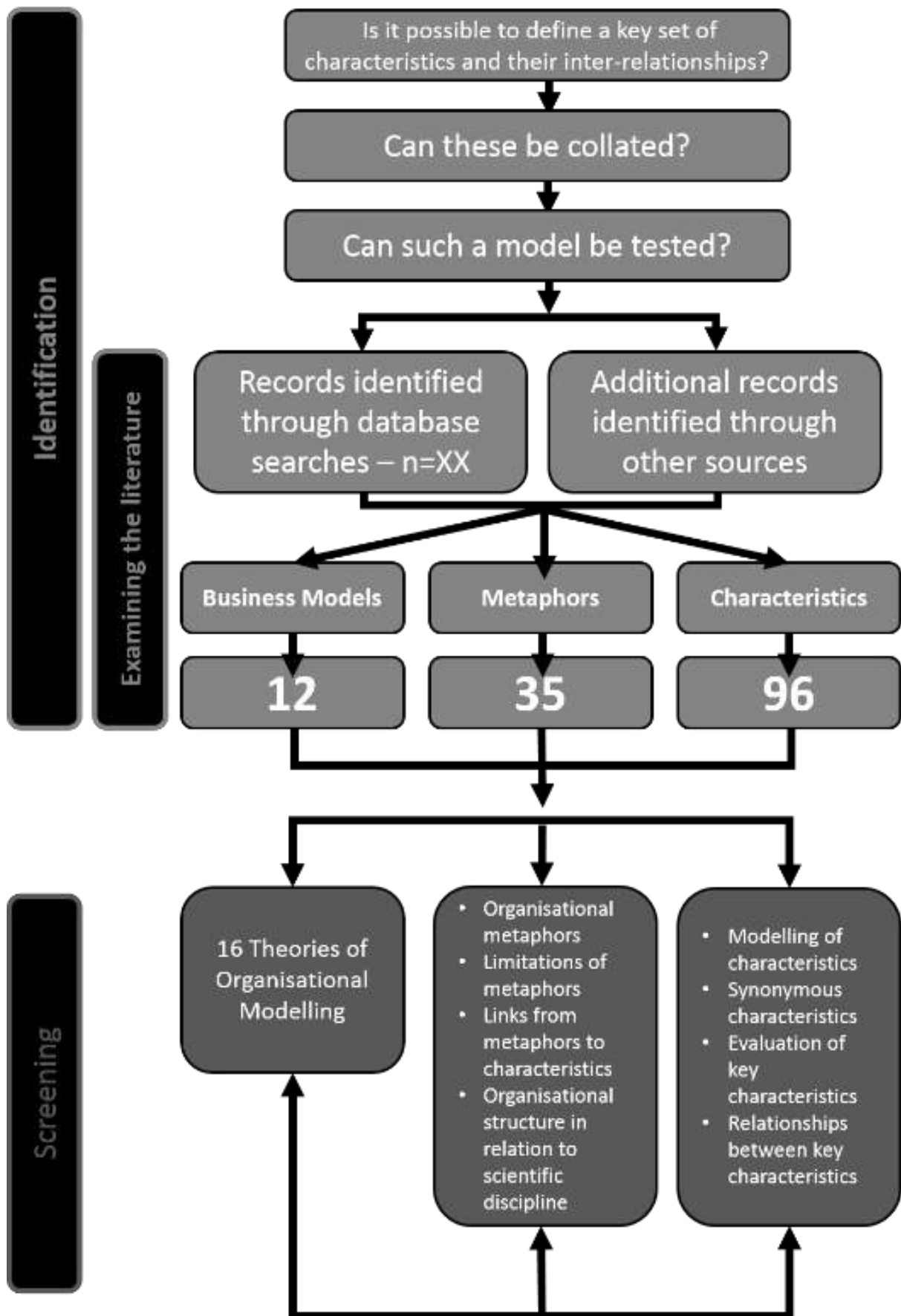
We Will Start With a Vision at the Macro

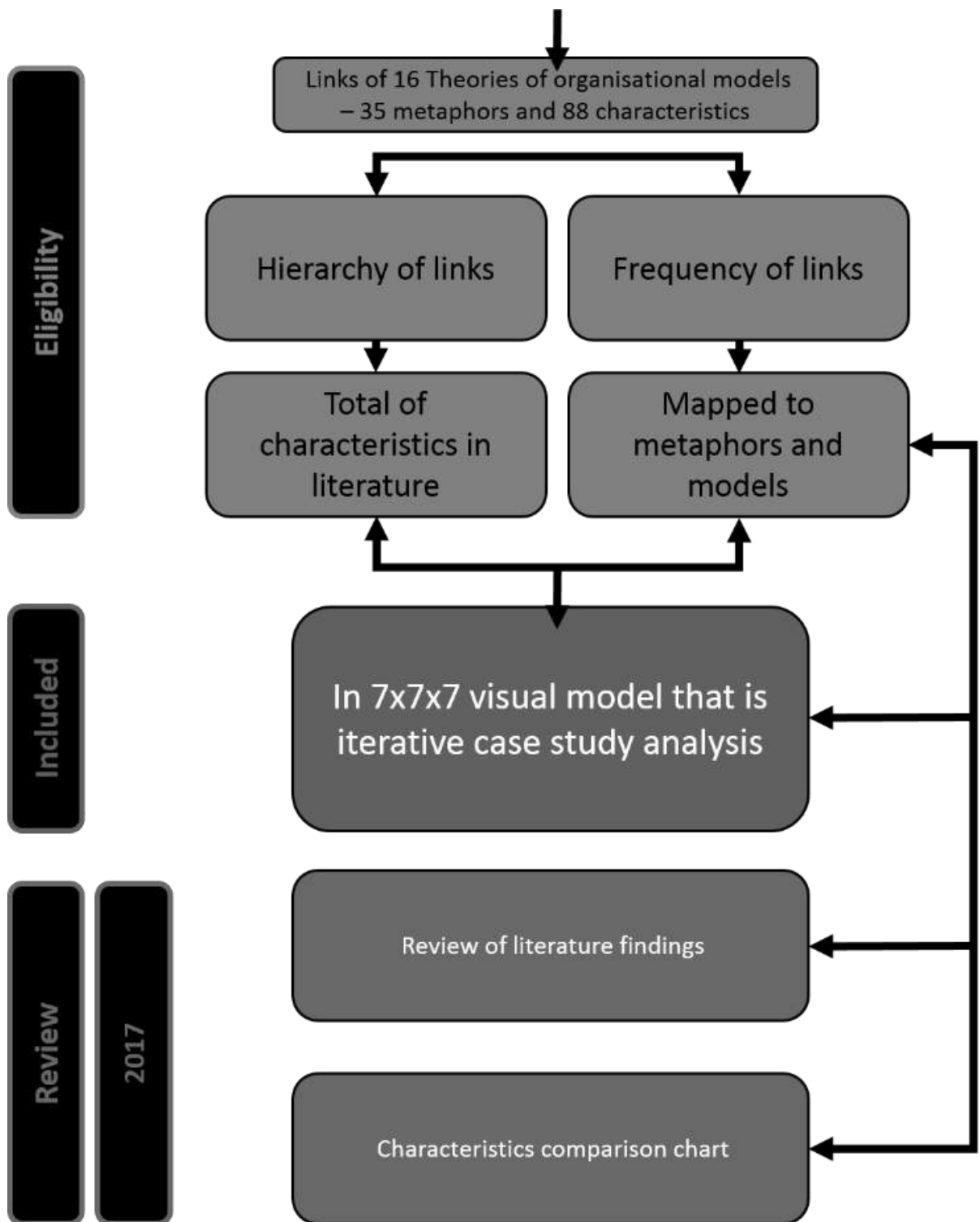


The Transformation Model (Author's own work, 2010)

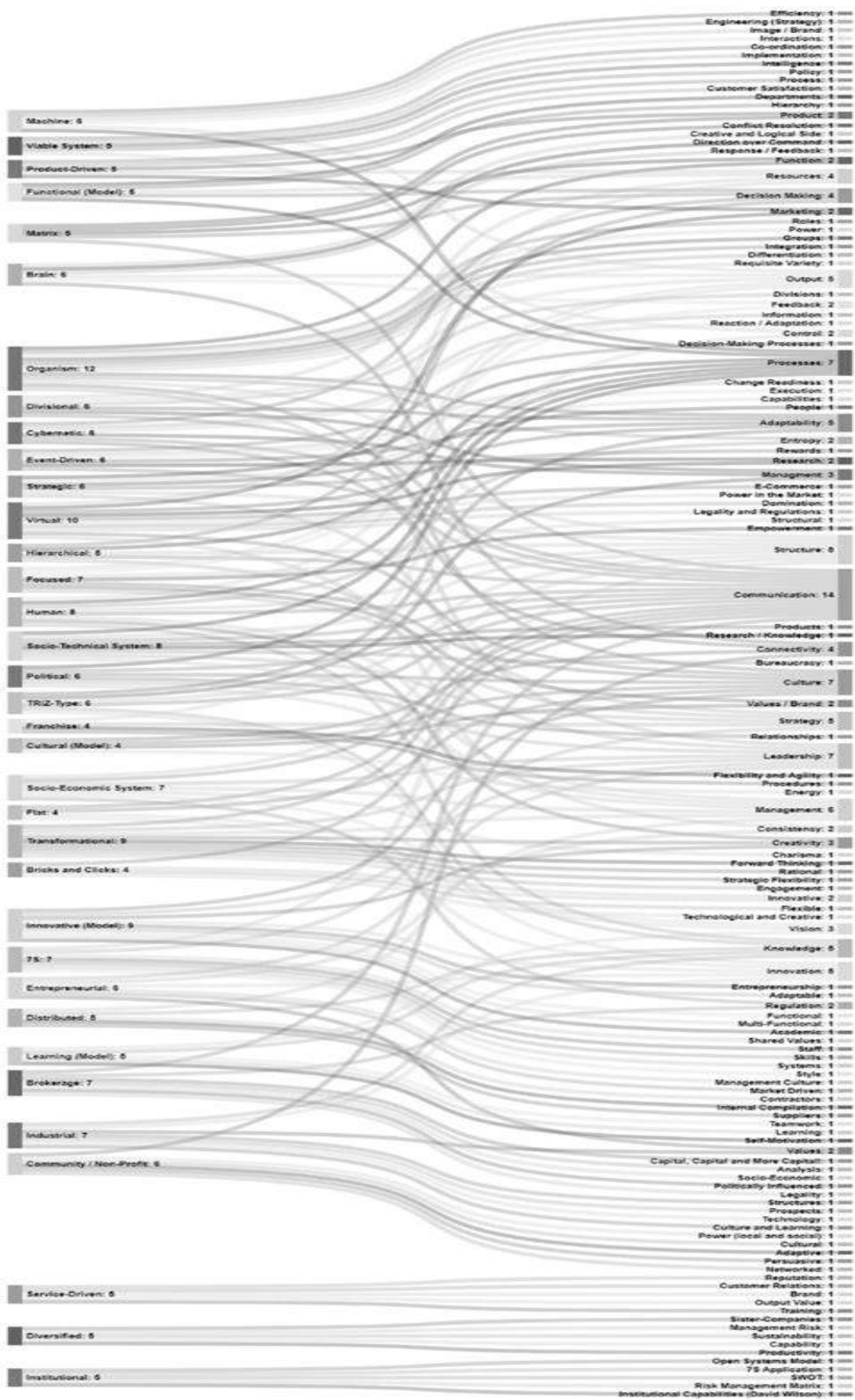


The Culture Transformation Model (Author's own work)

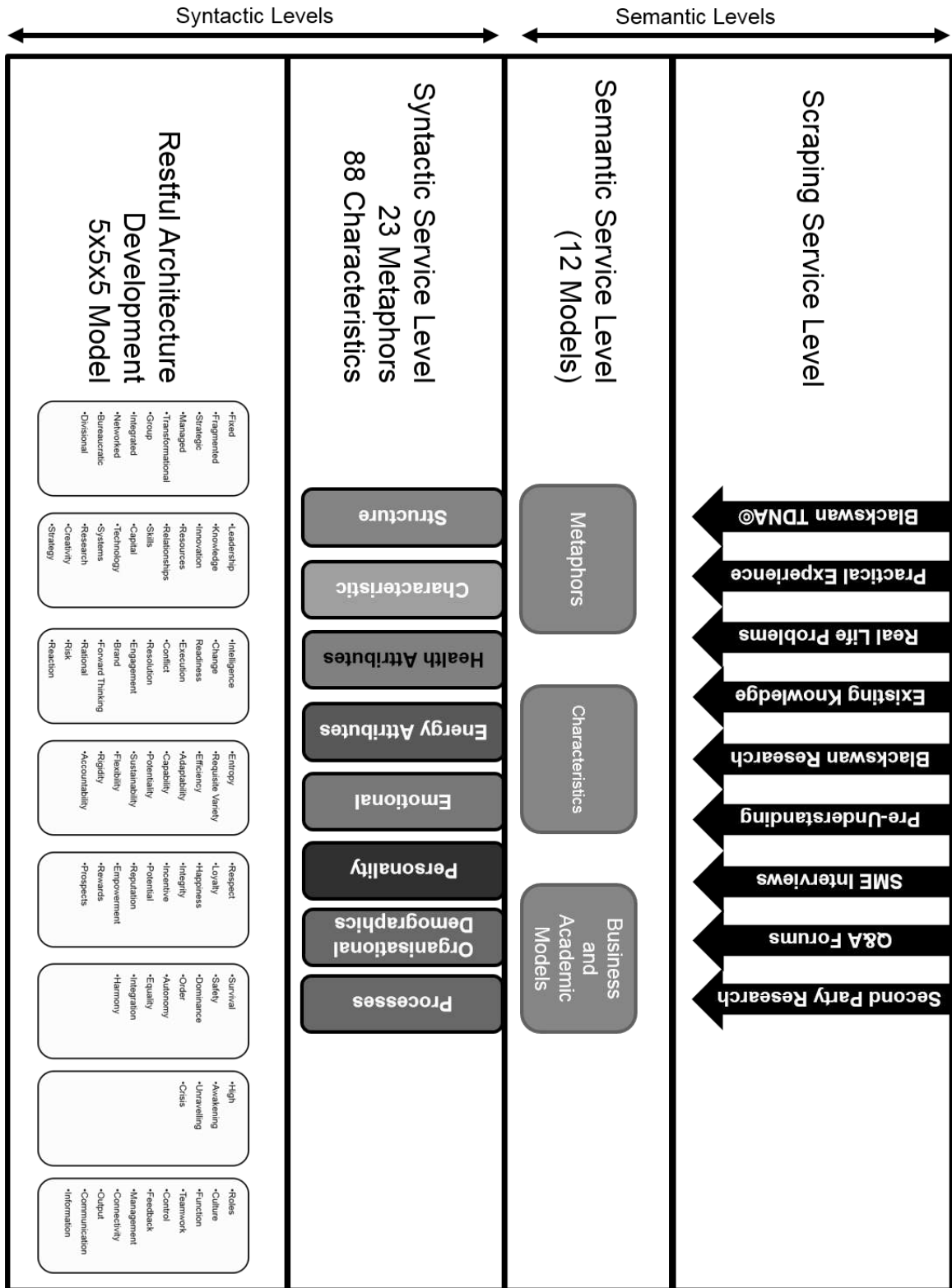




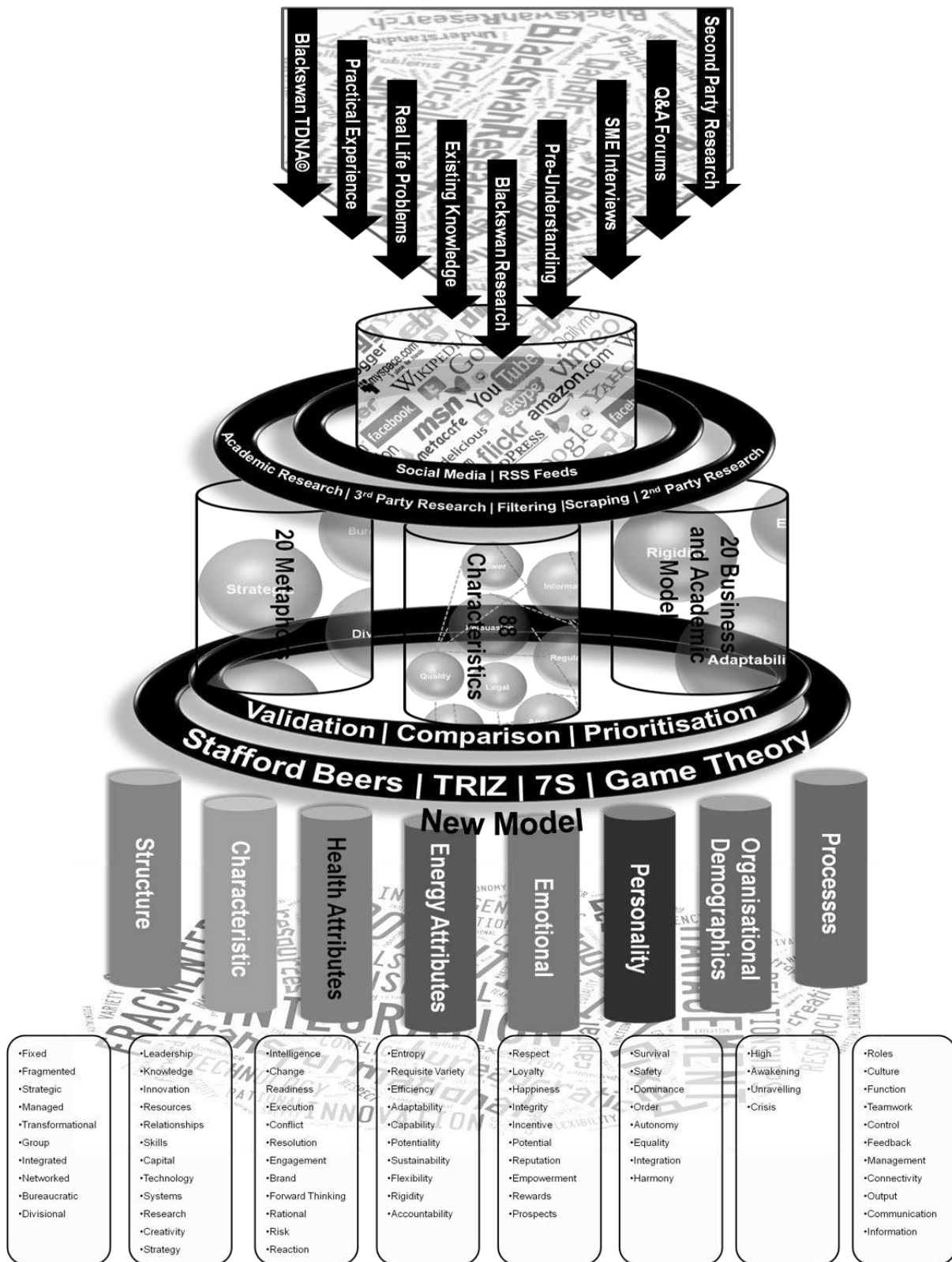
Literature Review Methodology (Author's own work)



Connections between Characteristics and Metaphors



Semantic Scraping Framework



The Methodological Process

Base/Standard	Fragmented	Sliced	Machine	Managed	Optimising	Strategic	Transformational
Strategy and Vision	No link between different parts of the organisation and input is ad-hoc and individualistic.	The development of strategy is managed within different business units or teams.	The development of strategy is aligned across the organisation, although there is little external scanning.	The organisation is able to identify key issues impacting on world events and technology.	The organisation routinely and systematically scans external environments and this will inform the strategy.	The organisation is proactive and starts by looking into the future. It provides a sense of direction, continuity and effective staffing and leadership.	The transformational business vision is not about winning today's game, but about creating the rules by which tomorrow's game will be played.
Change and Innovation	No formal innovation process capability. Any innovation successes therefore are more likely the result of luck than judgement.	There are some 'runs on the board' - innovation and change are beginning to build some champions, and there is a network of supporters.	There is a basic innovation process in place and this is consistent across the organisation.	Innovation capability evolution starts when there is a clear innovation process in place and goals are set.	Innovation is visible within the organisation and senior managers will aim to implement it throughout the organisation.	Innovation is now highly visible on the senior management radar screen and there is probably going to be someone with full-time responsibilities for innovation within that team.	The organisation is able to proactively venture outside its core skill areas and into other areas.
Resources and Leadership	People are seen as assets to be used by the business. Recognition is given to those with long service and specific technical knowledge or skills.	People are structured into functions and follow technical career pathways, seldom moving out of their discipline.	People prefer to work within their functional disciplines, however, they are willing to collaborate to achieve organisational objectives.	People will work within their functional disciplines but will readily work across organisational boundaries to ensure that the job gets done.	People actively look for opportunities where value can be added through collaborative working.	People across the business understand the strategic imperatives and drivers and routinely align their actions and behaviours to ensure that the vision and strategy is achieved.	The business is vibrant and full of energy. People understand their accountabilitys and are empowered to make decisions which deliver required results for the customer.
Output and Value	The business is incapable of providing a consistent level of customer service or providing a consistent quality of product.	The business is capable of delivering consistent levels of customer service and product quality to customers. Customer service and quality are measured through KPIs.	The organisation uses KPIs to measure the consistency of customer service across the organisation.	The business is able to attain consistent levels of customer service and can deliver consistent product quality to customers.	High levels of customer service and delivery are the norm across the organisation.	People understand that delivering a high value product can only be achieved by actively breaking down the internal silos and removing them across the organisation.	The organisation has reached a position where customers view its products, services and the organization itself as the Global Standard.
Process and Systems							

Database: Key Characteristics

Case Strand	Fragmented	Stead	Machine	Managed	Optimising	Strategic	Transformational
SV - Capability	There is no unifying vision or strategy for the organisation.	There is a business strategy but it is operationally led with a tendency to follow the market.	The business strategy is aligned to business initiatives but tends to prioritise operational activity over strategic activity.	Business initiatives drive the direction and priorities for strategic activity.	The strategy is well aligned and communicated across the business and systems in place for detecting changes in the marketplace.	The organisation has well developed systems in place for detecting changes in the marketplace.	The vision and strategy for the organisation are clear, compelling and inspirational and the business is clearly transformational.
SV - Disruption	The strategy is not sufficiently robust to deal with unexpected pressures or changes.	Disruptions and change are addressed at a tactical level or within functional teams leading to a disjointed approach.	Disruptions are addressed at an operational level and there is no formal system in place to detect disruptions.	The organisation has structures in place to detect disruption or change in the external environment and is able to respond appropriately.	The organisation is able to detect disruptions and is able to adapt quickly.	The organisation has a very well developed strategic management capability and can adapt and change strategy swiftly and effectively.	The organisation is not only a driver of disruptive change but responds flexibly and nimbly to changes which it sees as opportunities.
SV - Energy	People focus on delivering to plan and do not seek to excel if it means challenging the status quo.	There is a compliance with the strategy at a team level but not necessarily across business processes beyond the team level.	People generally comply with the strategy across the organisation, although they may not be enthusiastic about it.	There is evidence of enthusiastic compliance and pockets of commitment across the business. People strive to do well.	People comply enthusiastically across the organisation and are generally committed to their work.	There are high levels of commitment and engagement and people drive for success with passion and determination.	People work enthusiastically to deliver the strategy and there is real and tangible ownership and championing of goal delivery.
SV - Output	The strategy is complied with to achieve output but the approach is disjointed and overly tactical.	People comply with the strategy that has been handed down because that is the way it is done.	The organisation is able to deliver its current goals but it does not aim to improve itself regularly.	The business demonstrates capability to deliver its goals in a coordinated manner with continual improving output.	The organisation aims to continually improve its existing strategy but does not focus on keeping up with emergent trends.	There is an advanced strategic capability to deal with customer needs and emergent trends within the marketplace.	There is a clear and fuzzy strategy that is highly adaptive in meeting customer needs and anticipating and/or creating market change.
SV - Agility	There is a common view that the organisation can survive on without the aid of a team level.	A culture of customer focus exists but.	Customer focus exists across the organisation and people will work.	Customer focus and the level of collaborative working creates a culture.	People actively look to collaborate and want to achieve goals for customers.	The culture emphasises the importance of adaptability to meet changing.	The organisation has an empowered culture which informs, involves and

Base Strand	Fragmented - Siloed	Siloed - Machine	Machine - Managed	Managed - Optimising	Optimising - Strategic	Strategic - Transformational
SV - Capability	The organisation needs to develop a strategy of some sort, even if this is purely operationally led.	The organisation needs to start aligning the strategy with business initiatives whilst prioritising operational activity.	The organisation needs to develop its strategy so that it is aligned with the organisation's strategic activities.	The organisation needs to align its strategy with major changes that are occurring within the external environment.	The organisation needs to develop a strategy for detecting changes within the marketplace.	The organisation needs to develop a transformational strategy that will allow the organisation to shape the market.
SV - Disruption	Individual silos need to address disruptions and decide upon their own course of action.	The organisation needs to address disruptions at an operational level when they become apparent within the organisation.	The organisation needs to develop structures that will be able to detect disruptions within the market.	The organisation needs to be able to detect disruptions quickly and adapt to them accordingly without haste.	The organisation needs to develop a strategic management capability that is able to implement changes with efficiency whilst ensuring effectiveness.	The organisation needs to drive disruptive change and be able to respond fluidly to disruptions which could provide it with opportunities.
SV - Energy	The organisation needs to ensure compliance within teams even if this does not necessarily spread across the organisation.	The organisation needs to ensure that people across the organisation comply with the strategy, although they may not be enthusiastic about it.	The organisation needs to improve the enthusiasm levels within the organisation.	The organisation needs to develop strategies that encourage people to strive to do well.	The organisation needs to be able to monitor the commitment and engagement of people across the organisation to ensure they are working with passion and determination.	The organisation needs to ensure that people have ownership of their work and that the organisation champions goal delivery. People will strive to do well throughout the organisation and are more than willing to put in discretionary effort.
SV - Output	Individual silos need to develop strategies that aim to deliver the silo's necessary output.	The organisation needs to be able to deliver its current goals effectively.	The organisation needs to be able to work in a coordinated manner to make some changes that will help to improve upon the organisation's output.	The organisation needs to continually improve upon its existing strategy but these do not need to focus on keeping up with emerging trends.	The organisation needs to develop an advanced strategic capability to deal with customer needs and emergent trends within the marketplace	The organisation needs to develop a clear and fuzzy strategy that is highly adaptive in meeting customer needs and anticipating and/or creating market change
SV - Agility	Individual teams need to develop a culture of customer focus.	The organisation needs to develop a customer focus across the	The organisation needs to develop a culture of collaborative working.	The organisation needs to develop a culture in which people will	The organisation needs to develop a culture which emphasises the	The organisation needs to develop an empowering culture which