DEVELOPING A CUSTOMER-FOCUSED APPROACH  
(DaCfA)

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Abstract

The themes of poor communication, lack of measurement and erratic supply-chain performance are common issues that we either encounter in our every-day working life, or have read about in our professional journals. In 2001 a large business within Case X initiated a programme to tackle a number of these issues by embarking on a mission to improve internal service quality which eventually led to a sizeable number of ServQual activities across a wide-range of services engaging in excess of 2,000 individuals.

A common theme seen during this programme were that departments had difficulty describing who their customers were, the services they provided to those customers, coupled with this was a lack of measurement of the attributes that were or thought to be important to the customer. This eventually led to the research into a toolset that can assist organisations to understand the supply-chain that they operate within. The toolset is styled, Developing a Customer-focused Approach (DaCfA) a Model and Toolset (suite of matrices and templates) designed to capture and facilitate the review supply-chain information.

This Research takes the DaCfA Model, and Toolset developed within Case X, and through a suite of case studies applies both to inside and outside the Case X environment as well as in the internal and external supply-chain. This Research shows that the DaCfA Model and Toolset have made a valuable contribution to knowledge.

Research, enhanced by literature identified a number of themes (referred to as Theoretical Themes) that were observed within business units undertaking DaCfA activities, these themes were independently observed within the write-ups of the case studies that participated in this Research.

The Research concludes that the research aim and objectives were fully achieved and the following contribution to knowledge concerning:

- The DaCfA Model
- The DaCfA Toolset, specifically around the:
  - Customer/supplier interfaces and relationships
  - Measurement definition
- A set of themes (styled Theoretical Themes) that are readily observed within organisations undertaking a Customer-focused activity.
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<td>Business Excellence</td>
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<tr>
<td>BPM</td>
<td>Business Process Management</td>
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<tr>
<td>CRM</td>
<td>Customer Relationship Management</td>
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<tr>
<td>DaCfA</td>
<td>Developing a Customer-focused Approach</td>
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<tr>
<td>DNA</td>
<td>Desoxyribonucleic Acid</td>
</tr>
<tr>
<td>EFQM</td>
<td>European Foundation for Quality Management</td>
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<tr>
<td>Go-Co</td>
<td>Government Owned Contract Out</td>
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<td>LA</td>
<td>Local Authority</td>
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<td>MoD</td>
<td>Ministry of Defence</td>
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<td>OC</td>
<td>Organisational Continuum</td>
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<td>QFD</td>
<td>Quality Function Deployment</td>
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<td>RO</td>
<td>Research Objective</td>
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<td>TCS</td>
<td>Total Customer Satisfaction</td>
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<tr>
<td>TT</td>
<td>Theoretical Theme</td>
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<tr>
<td>TQM</td>
<td>Total Quality Management</td>
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<td>SLA</td>
<td>Service Level Agreement</td>
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<td>VoC</td>
<td>Voice of the Customer</td>
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Declaration

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.
Acknowledgements

I would like to thank the case study organisations for their support without which this Research would not have been possible. I would also like to thank my colleagues at Case X for their continued encouragement and assistance.

To my supervisors Dr Debbie Reed and Professor Michael Kaye, for their wise counsel, support, encouragement, but above all their patience. I am eternally grateful.

To Lynn, thank you for being there for me.
Chapter 1

Contextual Setting of this Research

INTRODUCTION
The purpose of this Chapter is to describe the context of the Case X environment from which this research arose; to articulate the motivation behind the research and to clearly define the research aim and objectives.

CONTEXT SETTING OF THE RESEARCH
Unlike many conventional organisations, Case X, because of the nature of its business, has a limited external customer base, mainly concerned with a narrow section of the Ministry of Defence (MoD). It does, however, have numerous internal customer interfaces which operate in similar respects to those in an external customer/supplier relationship.

Case X operates from two main sites, situated approximately five miles apart. The sites are respectively five and three miles in circumference, with many hundreds of facilities occupied by many thousands of people. These facilities require maintenance and the people housed within them need to be ‘watered and fed’. It does not take much imagination to visualise a highly service-orientated business. Case X identified that the understanding and management of these internal customer relationships were essential to its financial well-being.

The relationship and formal contract with its customer is such that Case X is always looking for ways to improve the business and mutually share the realised benefits. One such identified improvement was standardising the way in which internal customer perceptions were measured and, as a consequence, services improved. It was through this improvement initiative that this Researcher was formally asked to identify various modes of improvement ‘tools, techniques and methodologies’.

As a result, the ServQual approach (Parasuraman, Zeithaml, & Berry (1988)) to understanding the Customer/Supplier relationship was identified as an approach that had the flexibility to be applied at Case X across its various internal customer relationships. A pilot activity of this approach was initiated by this Researcher on September 11th 2001, an infamous day that is etched on the minds of everyone for so many of the wrong reasons; Case X had embarked on its journey to develop an approach to Customer Satisfaction. It was during this pilot activity within Case X (referenced as Case Xa) that this Researcher identified the difficulties that teams were having in identifying both their
customers and the services they were providing to those customers. During this pilot activity this Researcher identified the need for a new tool, which he subsequently designed, developed and applied - this was the first version of the Customer Matrix (Figure 4.1, p. 96). The approach of the Customer Matrix was closely followed by the identification of the need for the Supplier Matrix, which was similarly design and development by this Researcher. Ultimately, the concept was developed fully by this Researcher which led to the design and application of the Developing a Customer-focused Approach (DaCfA) Model and Toolset, the testing of which is the subject of this thesis.

Corneliu (2011, p. 895) comments that the terms Customer Satisfaction and Service Quality are often confused, with the former derived from customer contact with the service; and the latter being an intrinsic attribute of the service. Corneliu continues that quality is a subjective dimension, which everyone appreciates through different filters. Markovis & Raspor (2010, p. 195) state that customers are likely to view service as a selection of attributes that may, in different ways, contribute to their purchase intentions and perceptions of service quality. According to Anon (2012, p. 6), with the growing popularity of Customer Satisfaction Measurements, more and more companies are using this type of information in their Strategic Planning Process. Atrek & Bayfaktaroglu (2012, p. 424) comment that quality of service depends on who provides the service, when and where, how and to whom; they continue that quality is a phenomenon in business-life because it is a determinant of customer satisfaction and cost minimisation. Forst (2002, p. 13) identifies that most large organisations recognise the importance of measuring and monitoring internal customer satisfaction, and understand that measuring satisfaction levels among customers provides a quantitative baseline for comparing results over extended periods of time to enable fact-based decision-making. Customer satisfaction depends upon how well an organisation delivers products and services to external customers, but equally important is the delivery of services to internally-based customers and, as a consequence, to the bottom-line (Meisinger, 2003, p. 8). Rampersad (2001, p. 341) supports this by commenting that to realise customer satisfaction everyone within the organisation should consider continuous improvement as something normal. He articulates that the central questions are:

- Which products or services do we provide?
- Who are the customers?
- What do they want (what are their requirements)?

These three questions were to become extremely important as the early work in Case Xa proceeded and would lead eventually to the development of the DaCfA Model (described in Chapter 4, Figure 4-2) the testing of which is the subject of this research.

**CONTEXT OF LITERATURE THEMES**

Terms such as Service Quality are often used without a real understanding of the meaning of that term within the context of service or product provision. According to He & Li (2011, p. 78) the major purpose of service quality investment is to improve customers’ perceptions of an overall service
quality and enhance their services experiences. The literature reviewed will describe service quality as focusing on the needs of the customer, which are mainly concerned with the non-tangible, softer aspects of quality, such as satisfaction data, which Oakland & Oakland (1998, p. 188) believe is only really stated to be appreciated since the late 1990s. The measurement of such is from a perception view point, which is described as being every part as powerful and sometimes more revealing as that from a financial or hard measurement perspective. (Phillips, 1997, pp. 4-7).

Service quality will be discussed in very generic terms, and will focus on the ServQual Model as developed by Parasuraman et al (1982, 1985 and 1988). The concept of who is the customer; what do they need and with what are they provided, sets the basic concept of both the ServQual and the Developing a Customer-focused Approach (DaCfA) models. It will be identified that the principle of service quality, is not about exceeding the customers’ expectations, but understanding them and delivering what they need, when they need it.

Too often organisations undertake customer satisfaction surveys and are either surprised by the poor response rate or shocked by the results of such surveys; organisations also undertake measurement of service provision without understanding the context and synergies of the data being collected. How & Sorooshian (2013, p. 111) articulate that service quality is related to customer satisfaction and that consumers who are satisfied with the perceived service quality will eventually lead to satisfied customers. He & Li (2011, pp. 81-82) argue that, unlike product quality and price, service quality has the advantage of being hard to imitate, which in turn suggests the significance of service quality for winning customers with overall service quality referring to consumers’ overall perception of the gap between expectations and actual service performance.

This research will identify the difficulties that organisations have with the context of customer/supplier identification and the measures required to articulate the full interaction between products supplied and those delivered to the customer. The concept of customer interaction identified within the literature, is designed into the DaCfA Toolset. Through the writings of Chen & Paulraj, (2004) the literature will describe that a broader and more effective business performance measurement approach should also include indicators of operational performance, which reflect more directly the effectiveness and efficiency of the operations within the organisation, whereas the financial measures tend to be a reflection of factors outside the organisation’s boundaries. The key theme from the literature is establishing of the right measures, to measure the right things.

The literature will also show that focusing on and improving the internal supply-chain will ultimately have a positive impact upon the external supply chain. Therefore this research will show that the DaCfA Toolset is not focused solely upon the external supply-chain and it easily applies to the internal customer and internal supplier focus.
Communications as such is not addressed as part of the DaCfA Model or Toolset, however aspects of poor communication (both a strategic (leadership) and tactical (grounded) context) have been identified by the application of the various DaCfA artefacts within the case studies that form part of this research.

Two of the forms of control discussed within the literature review are Charters and Service Level Agreements (SLA). The Charter will be described as setting the generic principles of the service being delivered and the SLA as the specific agreements between a customer and service provider. Controls will be discussed from two specific positions those used to tie in the financial and performance of the product or service being provided to the customer (Charters, SLAs, Contracts) and those designed to ensure repeatability of the product or service being delivered, to ensure that customers receive the same tomorrow as they did today (as a examples Processes and Procedures).

The Pilot Activity (Case Xa) that was conducted as a lead-in to this research highlighted that ‘service providers’ are not as ‘customer-aware’ as they ought or should be, and that basic good practice of setting customer expectations in the form of a ‘standard’, as an example a Charter or SLA, as well as delivering to that ‘standard’ and measuring that the ‘standard’ has been achieved, are fundamental phases of good business practice that are not always applied, or understood. Literature will be reviewed to understand if this theme is observed by other researchers, as well as the suite of case studies that forms part of the research.

This research will describe that through the application of the DaCfA Model and Toolset organisations can become more customer-aware.

**RESEARCH AIM AND OBJECTIVES**

The motivation to carry out the research and to establish the portability of the DaCfA Model and Toolset outside of the Case X environment as well as in the context of the external supply-chain, led to the development of a Research Aim and a set of four Research Objectives, which ultimately lead to a contribution to knowledge.

**Research Aim:** To test and validate an approach that will contribute to the field of relationship management. This approach is the Developing a Customer-Focused Approach (DaCfA).

To facilitate the delivery of this Research Aim, four Research Objectives (RO) were set:

**Objective 1:** To test an approach to internal supply-chain identification, the DaCfA Toolset, for application within the Case X environment;
Objective 2: To test the DaCfA Toolset in organisations other than Case X;

Objective 3: To test the DaCfA Toolset in fields other than those associated solely in an internal supply-chain context; and

Objective 4: To identify a set of themes (styled Theoretical Themes) that can be readily observed within organisations initiating a Customer-Focused activity.

CHAPTER SUMMARY AND THESIS STRUCTURE
The research sequence has been mapped against the Research Objectives and is shown pictorially in Figure 2-1 (Chapter 2, p. 7) this illustrates the timeline of the research against the context of the research sequence through which a contribution to knowledge is claimed.

This chapter provides an overview of the research context, the high level themes from literature as well as the Research Aim and Objectives.

The Research Thesis is structured in eight chapters as follows:

Chapter 1 – describes the contextual setting of the research; it introduces the concept of the DaCfA Model and Toolset.

Chapter 2 – articulates the Research Framework, set within seven distinct research steps.

Chapter 3 – frames the literature review in the context of the DaCfA Model and concludes by describing a number of Theoretical Themes associated to the DaCfA Model.

Chapter 4 – describes the motivation for the research as well as the DaCfA Model and Toolset.

Chapter 5 – analyses the data gathered concerning the DaCfA Toolset, set in the context of the DaCfA Model

Chapter 6 – focuses the analysis on the achievement of the four Research Objectives.

Chapter 7 – concludes the findings and demonstrates the contribution that this research has made to Knowledge.

Chapter 8 – identifies and recommends threads for further research.
INTRODUCTION

This Chapter discusses the research approaches that formed part of the research framework, through which the Research Aim and Objectives were delivered. The chapter has been intentionally placed earlier than usual within this thesis to facilitate the reader’s understanding of the chronology of the research and in particular, the manner in which Theoretical Themes (discussed at p. 39) were generated. Therefore the Origin of the theoretical themes is described within the research methodology before being addressed within the literature review (Chapter 4).

This research utilised a number of qualitative, quantitative and quasi-quantitative methods and techniques to build up the baseline of data. These methods and techniques include Action Research, Case Studies, Literature Review (narrative review), Theme Review, Data Gathering Instruments and Statistical Analysis, together with the adoption of certain quasi-statistical techniques (the use of numbers instead of adjectives when claiming something is typical, rare or acceptable (Yin, 2011, p. 79). The advantages and disadvantages associated with each of these approaches are discussed.

To understand the concept of research, there is a need to understand the desired outcomes of the research and the influences that can have a bearing upon those outcomes. Influences may come from the relationship of epistemology and ontology to the research, which is to say for this research, the pre-conceived knowledge of the organisation about customer-supplier relationships. It is acknowledged that the Researcher will possess a bias towards the DaCfA Model and Toolset; and therefore will have a tendency to favour the DaCfA Toolset, compared to other approaches (if available). It is this pre-conceived knowledge of the organisation and the bias of the Researcher that the Research Methodology will try to eliminate or reduce and control as far as is possible.

The style and context of the research undertaken can be influenced by the environment within which that research has to operate. To fully appreciate the extent of the research framework employed, there is a need to understand the benefits and potential drawbacks of the use of the particular research tools, techniques, methodologies and philosophies associated with the research project. Likewise, there is a need to understand the environment within which that framework will operate, and the issues that might be caused by a particular combination of methods.
The Research flow is illustrated in Figure 2-1, below, which sets out pictorially the research steps undertaken to deliver the research objectives (set within the research timeline). This research takes two specific avenues of activity:

1. Concerned with the testing of the DaCfA Toolset (steps 1, 2, 3 and 4D of Figure 2-1) applied within a workshop environment controlled through a case study protocol, Appendix C (step 1). Feedback on the DaCfA Toolset is solicited through a suite of Instruments, Appendix I (step 2). Data analysis is performed in a number of contexts (data triangulation) to provide evidence on the effectiveness and usability of the DaCfA Toolset (step 3), leading to conclusions on the achievement of the Research Aim and Objectives, which will ultimately lead to a contribution to knowledge (step 4D).

2. Associated with the Theoretical Themes observed within organisations undertaking a Customer-focused activity (steps A, 1, B, C and 4D). The initial themes (from Pilot step Xa) are framed using literature into 23 Theoretical Themes (step A). Using a theme identification protocol, Appendix L the case study write-ups (from step 1) reviewed for the presence of the 23 TTs (step B). The Reviewer output is analysed in a number of different contexts (quasi-quantitative data triangulation) (step C), leading to conclusions on the achievement of the Research Aim and Objectives, which will ultimately lead to a contribution to knowledge (step 4D).

Figure 2-1: The Research Framework Flowchart. Source: Author.
It will be argued that the research method applied was a mixed-method approach, although heavily biased towards a qualitative research framework (with quantitative and quasi-quantitative data sources available) deployed within a case study environment. The Research sits within the realm of action research by the inductive approach for developing the DaCfA Toolset and the Theoretical Themes. Moreover, this Research is concerned with issues in the real world, with each case from a different sector, involving participants from the same organisation.

**ETHICAL ISSUES FOR THE RESEARCH**

The subject of ethical research is much more to the fore today than it was even 10 years ago. There are examples of fields of research, such as within the NHS and social services, where there has always been a strong ethical dimension when considering, for example, patient or client data. Only in recent years have such ethical considerations been the focus of management or business research. Robson (2011, p. 198) distinguishes between ethics and morals, ethics are usually taken as the guiding principles of what ought to be done, whereas morals are concerned as to whether or not a specific act is consistent with the accepted notion of right or wrong.

Robson (2011 p. 200) and Bryman & Bell (2007, p. 128) citing Diener & Crandall (1978) identify a number of areas where the transgression of research ethics generally occur, or questionable practices in social research arise:

- Involving people without their knowledge or consent;
- Withholding information regarding the true nature of the research;
- Deceiving the participants;
- Exposing participants to physical or mental stress;
- Invading participants privacy;
- Withholding benefits;
- Not treating participants fairly;
- Harm to participants (e.g. physical, mental, career prospects);
- Lack of informed consent;
- Invasion of privacy; and
- Deception.

To ensure that for this research, none of these questionable practices arose, a full ethical review for the research was undertaken (Appendix F) and before each Case Study could commence an Informed Consent Letter was signed by all relevant parties. The following describes the ethical approach applied in this research.
The Ethical submission included the completion of an Ethical Check List, which indicated:

- the class of individuals or units of people to be engaged during the research;
- the primary and secondary data used, such as questionnaires, researcher’s notes and completed workshop exercise material;
- the methods of codification so that published and/or stored material cannot be directly attributable to an individual; and
- the requirement that before any engagement can commence with an organisation or body, an Informed Consent Letter must be constructed outlining the nature of the research and the circumstance under which it shall be undertaken.

The Informed Consent Letter, in Appendix F, clearly states that the organisation or individual may withdraw from the research at any stage and material will not be used without the prior permission of the organisation/individual. Each Case Study organisation within this research and referenced through this Thesis had an Informed Consent Letter in place (duly signed by all parties) before formal research contact took place.

**BUILDING THE RESEARCH FRAMEWORK**

The Research Framework Flowchart as shown at Figure 2-1, (p. 7) is developed throughout this chapter, illustrating the theory related to the various research methods selected as well as describing the controls and inputs that are applied to each step of the research framework flowchart and the resulting outputs and outcomes. For the fully articulated workflow see Figure 2-13 and the research framework Appendix K. There are seven steps to the research framework, excluding the Pilot activity that does not form part of this research. Each of these steps is described below.

**Step 1 - Testing the DaCfA Model and Toolset**

This first step of the research framework (Figure 2-2) is concerned with identifying the organisations in which the DaCfA Toolset should be tested, both internally and externally to Case X, as well as those organisations that operate in the internal or external supply-chain (all contexts are essential to provide evidence that the objectives of this Research are met).

This step of the Research has two key elements to:

- provide a rationale for the selection and profiling (to provide evidence that research objectives criteria have been met) of participating organisations; and
- ensure that the selected research approach is sound for the type of research being undertaken.
### Action Research

Action Research is the ‘spiral process’ which alternates between action and reflection. It may be paralleled to a problem-solving approach, applying continuously refining methods, data and interpretation in light of the understanding developed in earlier cycles. Robson (2011, p. 190) describes action research as a spiral process of cycles of Planning – Acting – Observing – Reflecting. Bryman & Bell (2007, p. 427) subscribe to the concept of a problem solving approach, where the researcher and ‘client’ collaborate in the diagnosis of a problem, and the development of a solution based upon the diagnosis.

The credit for the conceptualisation of Action Research stretches back to Kurt Lewin circa 1946. Huxham & Vangen (2003, p. 384) offer action science and action learning as having similar meanings, that of intervention within organisations, with the aims of bringing about practical transformation and of advancing knowledge.
DeLuca, *et al* (2008, p. 49) cite the Hult & Lennung (1980) definition of action research that it: “Simultaneously assists in practical problem-solving and expands scientific knowledge, as well as enhances the competencies of the respective actors, being performed collaboratively in an immediate situation using data feedback in a cyclic process aiming at an increased understanding of a given social situation, undertaken within a mutually accepted ethical framework”.

Bryman & Bell (2007, p. 428) cite a description for action research from Eden & Huxham (1996), where they describe the characteristics of action research in terms of outcome:

- With implications that relate to situations other than that which is studied;
- That are concerned with theory, as well as being usable in ‘everyday life;’
- That lead to the generation of emergent and grounded theory, (emanating from incremental steps in data); and that the
- findings will have practical implications.

Teddlie & Tashakkori (2009) describe action research, as:

“A type of research in which investigators aim to improve society and its institutions and which sometimes involves the investigators’ curiosity about their own workplace”.

Action research is of particular relevance to this Research as it is the method by which the DaCfA Toolset was tested and any modifications to the toolset, as an example the addition of a column and row to capture risk were applied to the Customer, Supplier and Relationship Matrices (Figures 4-6, 4-7 and 4-8, pp. 102-104).

Reason (2006, p. 188) offers the concept that creating knowledge is a “practical affair”, therefore action research is concerned with issues in the real world, rather than the traditional academic research viewpoint of trying to answer a theoretical question. He continues that the focus on practical purposes draws attention to the moral dimension of action research.

Due to the very nature of action research, the interaction with real people in real situations, ethical issues within the context of the research environment require understanding before the research should proceed. These issues have been covered above. Moreover, the practice of action research is not a value-free process, and therefore requires being as transparent as possible about the moral choices that are made (Reason, 2006, p. 192).

According to Gergen (2003, p. 41) action research is gaining momentum within the social sciences. Averill (2006, p. 25) offers examples of how, the practical application of action research can change
the view of research from being a dry academic exercise with no local relevance, to a research design that combines the rigour of good inquiry with the practicality of community-based problem-solving. A distinguishing feature of action research offered by Huxham & Vangen (2003, p. 386) is the tight coupling of research and action and the deliberate involvement of the researcher in changes to the situation being researched. Bourner & Frost (1996, pp. 11-18) highlight that the outcomes of an action learning project will be affected depending upon the participants being drawn from within the same organisation or if they are drawn from different organisation and different industries.

**Qualitative, Quantitative and Mixed-Methods Research**

According to Nancarrow, Barker & Wright (1996, p. 27) qualitative and quantitative research methodologies were seen as mutually exclusive; even rivals within certain schools of academia. The fields of research associated with mathematics and physics tend to favour the harder quantitative approach; whilst those from the social sciences tend to subscribe to the less quantifiable, or softer qualitative approaches (Milliken, 2001, p. 71).

There is a much wider school of thought that the qualitative and quantitative approaches are better-employed as a mixed-method approach to utilise the synergies within the two methods to provide a robust research approach (Seymore (1989, p. 25); Cahill (1996, p. 18); Hyde (2000, p. 88); Milliken (2001, p. 75); Di Pofi (2002, p. 167); Amaratunga, Bladry, Sarhar & Newton (2002, p. 30); Johnson, Onwuegbuzie & Turner (2007, p. 128) and Denscombe (2008, p. 280)). However Bryman (2007, p. 21) concludes that there has been “insufficient attention paid to the writing-up of mixed methods research”. He identifies that the integration of qualitative and quantitative data can be impeded by the different timelines that such studies operate under. This Research did not incur the same issue as described by Bryman and the integration for the two data sources aided, rather than hindered the Research as a qualitative statement is often used to support a quantitative Instrument Return rating.

For those that wish to label or categorise many of the everyday ‘quality’ tools and techniques neatly fall within the scope of these two distinctive methodologies. Quantitative examples include: histograms; pareto analysis; scatter diagrams; tally/check charts; range charts; run charts; control charts, whereas qualitative approaches include: brainstorming; cause and effect; interviews; case studies; flow charts. Those of a quasi-quantitative nature, that is to say they use numbers but are attributed in a qualitative manner include: ServQual; surveys; questionnaires. This research utilises both qualitative and quantitative methods throughout this as well as a mixed method approach.
**Quantitative Research**

The quantitative research perspective recognises both the *Positivist*¹ view and the *Postpositivist*² and is therefore suitable for any research environment.

Quantitative research, according to Teddlie & Tashakkori (2009, p. 154) and Robson (2011, p. 20) involves the collection of numeric data and by means of deduction between theory and detailed research to prove or disprove a prescribed hypothesis. They articulate a generic linear process, which they suggest will never be operated in its purest form, which indicates the deductive nature of quantitative research. For this research, two aspects of quantitative analysis was carried out - a survey instrument was developed (p. 29) to analyse the applicability and effectiveness of the DaCfA Toolset and the observation of the various Theoretical Themes identified (p. 43) within case study write-up was quantitatively reviewed and analysed.

To operate in a deductive mode of enquiry, Hyde (2000, p. 88) argued that the researcher should look for alternative descriptions of the hypothesis rather than to stick to those that follow the lines of the initial enquiry. Hyde continues that the deductive process remains intact if new data is available to test early proposals, particularly if that data was not encountered during the theory building process. It is argued by Teddlie & Tashakkori (2009, p. 12) that the final element of the deduction process is actually for the researcher to induce, based upon their findings, a revision to the theory. The articulation of the Theoretical Themes, discussed later within this chapter (p. 40) takes the form of induced themes developed via a deductive approach from the pilot activity within Case Xa and literature.

According to Bryman & Bell (2007, p. 16), quantitative research is concerned with a set of four “preoccupations, or centric themes” which, precipitate rigour into the approach:

- **Measurement**: the provision of a ‘yardstick’; the foundation of the quantitative methodology;
- **Causality**: an emphasis on understanding why things are the way they are;
- **Generalisation**: the opinion that the research findings represent a wider area outside that of the research environment and
- **Replication**: the ability to reproduce the results in similar environment using similar respondents.

Robson (2011, pp. 18-19) discusses similar ideas as measurement and quantification; focus on behaviour; generalisation and detailed specification of procedures.

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¹ That social science should adopt scientific method such as in an objective, value-free environment, with the rigorous testing of hypotheses by means of data in the form of quantitative measurement.
² Postpositivism recognises and addresses several of the criticisms of positivism; for example a recognition that the researchers’ value systems play an important part in how the research is undertaken and the data analysed.
In this Research, an instrument-based (quasi-quantitative) approach was adopted to gather data regarding the usability and effectiveness of the DaCfA Toolset (templates and matrices) artefacts.

Although the analysis of the captured data (covered later within this Chapter, p. 33) was of a quantitative nature, the completion of the artefact instruments also called for a narrative to support any numeric ‘rating’. Therefore, this data source was also of a qualitative nature applying the Bryman & Bell (2007, pp) centric themes associated to quantitative research to this research the results are:

- **Measurement**, various instruments for the basis of all data capture;
- **Causality**, that with the data analysis of the numeric responses and the narrative review of the written responses and a triangulation between the various instrument inputs (described later within this chapter, p. 28) a good understanding of the usability and effectiveness of the DaCfA Toolset was achieved;
- **Generalisation**, the analysis of the instruments provided detail of the transferability of the DaCfA Toolset across various organisational profiles as scalable using the developed Organisation Continuum Profile tool, and
- **Replication**, delivered through the use of a suite of documented instruments.

**Qualitative Research**

Strauss & Corbin (1998, p. 10) describe qualitative research as any type of research that produces findings that are arrived at by non-statistical methods or means of non-quantification. This is supported by Teddlie & Tashakkori (2009, p. 25) who articulate that qualitative research is an inductive process. Gilmore & Carson (1996, p. 22) citing Patton (1980) described the data from qualitative research as providing the depth and detail in descriptions of situations, events and interactions between people and things; whereas Ali & Birley (1999, p. 104) stress that the term qualitative, has no precise meaning and should generally be considered as an “*umbrella term to cover a variety of techniques*”. Knox (2005, p. 122) explains that qualitative and quantitative methods are at polar opposites. Nonetheless qualitative research has become an acceptable, if not mainstream, form of research in many academic and professional fields (Yin, 2011, p. 6).

Qualitative research is sometimes criticised by quantitative researchers as being too subjective which Bryman & Bell (2007, p. 422) argue is a “*reflection of the researcher’s own views*”, they continue “*sometimes it is even difficult to establish what methodology the researcher actually undertook and how they arrived at the research conclusions***. Bryman & Bell (2007) stress that the research process can start in an open-ended way and entail gradual narrowing down of the research question. Martinsuo (2001, p. 539) reasons that by narrowing down the scope, the depth of the topic may increase, which could lead to a loss of intent to the original question, Martinsuo continues that there is a “*tendency for qualitative research to become descriptive instead of analytical, which can lead to a lack of applicability of the research*”.
Qualitative methods are an array of interpretative techniques, e.g. focus groups, surveys, discussion groups, which, according to Gilmore & Carson (1996, pp. 21-23), are well suited to the characteristics of service provision.

Because qualitative research is by its nature often an inductive process, and more often than not, inductive theory development is associated with qualitative research, Bryman & Bell (2007, p. 633), Hyde (2000, pp. 83-84) argued that the results of qualitative enquiry most often “remain untested”. Hyde describes inductive reasoning, as a theory building process that commences with observations of specific instances and builds into generalisations regarding the ‘phenomenon’ in question, which is supported by Bryman & Bell (2007:14) who emphasise the process of drawing general assumptions from observations.

However, research methods are not mutually exclusive, quantitative research benefits from the use of qualitative data and visa-versa, and in the majority of cases of qualitative research, there is quasi-quantification. Bryman & Bell (2007, pp. 638-639), articulate this point by identifying the use of narrative to give the impression of quantification that is, many, often, seldom, rarely. Yin (2011, p. 79) refers to quasi-statistical where a numeric based answer is given instead of an adjective when, as an example, a claim that something is typical. Later a term Quasi-statistical Mean is introduced in this context referring to the creation of a mean of means, which, although not statistically sound, can be used as an indication of scale.

The various stages of the research framework (Figure 2-1) utilised the use of surveys (DaCfA Toolset Instruments), focus groups and case studies; the results of which were captured in the form of various case study write-ups the narrative analysis of which were fed into final analysis discussed in Chapter 5.

**Mixed-Methods/Triangulation**

Mixed methodologists advocate the use of a combination of quantitative and qualitative tool(s) or technique(s) to answer the research question; in social science research this can be seen as the third paradigm Denscombe (2008, p. 280). Di Pofi (2001, p. 156) and Johnson, Onwuegbuzie & Turner (2007, p. 123) argue that an incomplete view is obtained if the research methodology relies on one paradigm such as a quantitative method. Mixed methods can take a number of forms, which Johnson *et al* (2007, p. 124) class as a “pure mixed approach”, consisting equally of quantitative and qualitative techniques. Strauss & Corbin (1998, p. 31) argue that researchers should think of a mixed method in terms of interplay between qualitative and quantitative methods. Denzin & Lincoln (2008, p. 12) articulate that mixed method designs are a direct descendant of classical experimentation and they adopt a hierarchal approach.
T Teddlie & Tashakkori (2009, pp. 26-27) introduce the use of two methodological applications, which they describe as a **parallel mixed design**, where the quantitative and qualitative elements of the approach are applied simultaneously, they start and finish together or with some phased time lapse where one element starts or ends later than the other. The other method is the **sequential mixed design** where each element of the approach starts in a defined order after the previous element has completed. It is this parallel mixed design approach that this research has used. Quantitative data was captured as part of the DaCfA Instrument Survey and narrative qualitative review was undertaken from Instrument comments by workshop participants, and Case Study Write-up reviews. There has also been a quasi-statistical approach (Robson, 2001, p. 158) where Reviewer observations of Theoretical Themes within Case study write-ups have been assigned (through an algorithm) a percentage and strength rating (see p. 47).

The main advantage to employing a multi-methods approach is in achieving ‘triangulation’, to enhance the credibility of the study. Robson (2011 p. 158) states that triangulation: “*it is a valuable and widely used strategy involving the use of multiple sources to enhance the rigour of the research*”.

According to Bryman & Bell (2007, pp. 636-647) triangulation is a means by which the “*results of an investigation employing a method associated with one research strategy are cross-checked against the results of investigations from another research strategy*”. They continue that there is always a possibility that one of the research strategies will not realise the supporting results planned. In such cases, they offer a simple strategy, that a primary research stream be identified and, no matter what results are achieved from other research streams it is the primary research stream results that are identified as correct. For this research, the primary stream of data associated to RO1, RO2 and RO3 is that of the DaCfA Suite of Instruments (pp. 159-172). For RO4 concerned with the Theoretical Themes, the primary stream of data is that of the correlated reviewer observations (pp. 172-177).

DeLuca, Gallivan & Kock (2008, p. 59) argue that a multiple methods approach to data collection and analysis be employed to improve the integrity of the results of a particular study. A comprehensive data collection strategy, designed to generate and capture explicit data will yield more productive results than those obtained via an *ad hoc* approach, Huxham & Vangen (2003, p. 964). DeLuca et al (2008, p. 60) articulate the concept of triangulation in three distinct areas:

- The **triangulation of different measurements**, in this Research it is the triangulation of all DaCfA Toolset Instrument returns, for example Chapter 5, p. 155, Figure 5-2;
- The **triangulation of conclusions within the study**, for example through Figure 6-1, Chapter 6, p. 164 where case studies from within Case X are combined; and
- The **triangulation of conclusions across studies**, for example this is addressed at Chapter 5, p. 155, Figure 5-2 as a representation of all the case studies that participated within the research.
By obtaining an ‘answer’ from a single approach, it could be argued that some part of that answer is attributable to that approach, in choosing methods that are different from each other, a better estimate of the ‘answer’ can be achieved. Another advantage of a mixed method is articulated by Robson (2011 p. 385) is that rather than concentrating on a specific research question mixed or ‘multiple’ methods can be employed to address complementary study questions. The use of the multiple (mixed) methods can be used to provide enhanced understanding; an example of which could be the use of a narrative (qualitative) technique to enhance a statistical (quantitative) study.

Selection of Research Organisations
To test robustly the DaCfA Toolset outside of the Case X environment a number of case study organisations were selected to ensure that the breadth and depth of testing the DaCfA Toolset was a wide-ranging as possible. Engaging with external organisations as potential case studies for research was quite difficult and a high number of initial leads would slowly reduce during the research period to leaving the eight cases that were documented using the Case Study protocol, Appendix C.

Each potential case study organisation was contacted via telephone, then an onsite visit was undertaken when the Researcher gave an overview of the form that the research would take including explaining the workshop activities and finally an Informed Consent Letter (Appendix F) was signed by both parties before engagement could commence.

Eventually six external organisations committed to participate in the research, and those coupled with two further Case X business areas, lead to a Case Study base of eight organisations that participated fully within this research. The Case Studies A-H were undertaken in a series of Workshops (Focus Groups).

The Organisational Continuum (OC) Profile Tool
The OC Profile Tool is a set of simple continua (Table 2-1, below) which has been generated from the Literature Review and Pilot work carried out in the Case X environment. The prime focus of the OC Profile Tool was to categorise the organisations that participated within this research, providing confidence that the DaCfA Model and Toolset has been thoroughly tested outside of the Case X environment and in the external supply-chain.

A secondary use for the OC Profile Tool is to compare organisation to organisation as to the usability and effectiveness of the DaCfA Toolset (Table 2-5, p. 39, below and Appendix G Table B). A third level of use is identification of the applicability of the TTs to particular organisational profiles and therefore it was an aid to the construction of the Cross-case Matrix (Table 2-10, p. 50, below and Appendix J).
The OC Profile Tool enabled organisations to be assessed or to self-assess as their position on a scale across a number of distinctive continua.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>Designed for the purpose of</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>Distinguishing between the extremes of service provisions Hard or Soft.</td>
<td>The type of service provided e.g. Soft service telephone help desk or Hard service machine maintenance.</td>
</tr>
<tr>
<td>Customer Facing</td>
<td>Determining whether the department or organisation is internally or externally focused.</td>
<td>The customer base e.g. entirely internal to entirely external.</td>
</tr>
<tr>
<td>Customer Interaction</td>
<td>Describing the contact with the customer and the form of that contact, that is remotely based from or integrated with.</td>
<td>The interaction with the customer ranges from remote e.g. network maintenance. Or within the customer organisation e.g. cleaning services.</td>
</tr>
<tr>
<td>Product Type</td>
<td>Identifying the tangibility of the product provided</td>
<td>Where the product in non-tangible, e.g. a help desk network support or tangible such as a cleaning services.</td>
</tr>
<tr>
<td>Departmental Size</td>
<td>Understanding the scale of the organisation or department.</td>
<td>Less than 25 or more than 1000.</td>
</tr>
<tr>
<td>Customer Base</td>
<td>Understanding the scale of the organisations or departments customer base.</td>
<td>Less than 10 separate customer grouping to greater than 100.</td>
</tr>
<tr>
<td>Service Culture</td>
<td>Understanding the customer orientation of the organisation or department.</td>
<td>From a low understanding of customer culture to a High degree of customer culture within the organisation.</td>
</tr>
<tr>
<td>Company Perspective</td>
<td>Conforming whether the organisation is publically or privately owned.</td>
<td>Government Department, privately owned to PLC.</td>
</tr>
<tr>
<td>Business Excellence Rating</td>
<td>Indicate (x) if: Internally Assessed Externally Verified</td>
<td>Establishing the score of any independent or self-assessment review using the business excellence toolset.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the organisation or business area has undertaken a Business Excellent assessment. Please indicate the region of that ‘score’ and whether the ‘score’ has been externally verified.</td>
</tr>
</tbody>
</table>

Table 2-1: The Organisational Continuum Profile Tool Construct. Source: Author.

**Case Study Organisations**

**Case A** - Internal Financial Audit Team, from within a Local Authority, based on the South Coast. The workshop consisted of circa six individuals plus the facilitator and was conducted over a period of four workshops over a three month period, with the DaCfA Toolset activity spread over the first two workshops.

**Case B** - A national Engineering Sub-contracting Organisation, based in the South-east. The workshops consisted of circa six individuals plus the facilitator and ran over a period of seven months with the DaCfA Toolset activity spread over the first two workshops.

**Case C** - Soft Service Unit from within Case X, base in the South-east. The workshops took place over four separate sessions and approximately six hours involved in constructing the DaCfA Toolset Matrices and Templates with 12 individual at the first session and two-three individuals at subsequent sessions plus the facilitator.

**Case D** - Unit from Higher and Further Education, based on the South Coast. The series of short workshops were carried out on a 1-2-1 basis with the facilitator. The time spent completing the DaCfA Matrices and Templates was approximately 8.5 hours.
Case E - Smallholding from Devon. The series of two workshops were carried out on a 1-2-1 basis with the facilitator. The two sessions were held a month apart to complete the DaCfA Matrices and Templates approximately 4 hours in total.

Case F - Not For Profit Business Management Organisation based in Greater London. The series of short workshops were carried out on a 1-2-1 basis with the facilitator. Three sessions were held over a four month period lasting approximately 4 hours in total.

Case G - Not For Profit provider of School Governors, based in London. Two sessions were help on consecutive days consisting of eight individuals plus the facilitator.

Case H - Records Management Unit from within Case X based in the South-east. Completed in a series of 1-2-1 sessions with the facilitator then bringing all participants together to undertake a joint review of the completed DaCfA Matrices and Templates.

Each organisation self-assessed where it sat along the various continua of the OC Profile Tool (Table 3-1 above). This activity was conducted in the initial phase of contact with the organisation, therefore from these self-assessments the Researcher built-up a profile of the size and shape of the organisations that were case studies for this research. The robustness of the research is related to the range of profiles recorded across the OC. As an example, Service Type (see Table 2-2) has a case allocated from 1 to 6, providing a full spread across the entire band width of this continuum.

<table>
<thead>
<tr>
<th>Case Study Organisation</th>
<th>Continuum Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Name</td>
</tr>
<tr>
<td>A</td>
<td>Case A</td>
</tr>
<tr>
<td>B</td>
<td>Case B</td>
</tr>
<tr>
<td>C</td>
<td>Case C</td>
</tr>
<tr>
<td>D</td>
<td>Case D</td>
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<tr>
<td>E</td>
<td>Case E</td>
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<tr>
<td>F</td>
<td>Case F</td>
</tr>
<tr>
<td>G</td>
<td>Case G</td>
</tr>
<tr>
<td>H</td>
<td>Case H</td>
</tr>
</tbody>
</table>

Table 2-2: OC Case Study Alignment. Source: Author.

Case Studies

A case study is one specific way of conducting social science research; Yin (2009, p. 2). Case study is a term that means all things to all people. Van-Wynsberge & Khan (2007, p. 80) describe case study
as a catch-all category for a variety of research methods, methodologies, and designs, that as a result, loses its meaning. It might be because of this lack of clarity of understanding that the term case study has long been (and continues to be) stereotyped as a weak sibling among social science methods Yin (2003, p. xiii). This is further supported by Riege (2003, p. 75) in the context of market research when he emphasises that the use of qualitative techniques such as case study, is not really accepted as a rigorous alternative to established quantitative methods.

Yin (2003, p. xiii) describes how practitioners (investigators) “who ‘do’ case studies” are regarded as having downgrade their academic disciplines; notwithstanding this stereotypical description that case studies are a weak method; case studies continue to be used extensively in social science research. So if this is such a flawed methodology, why is it so widely used within the social science arena? Yin (2003, p. xiii) believes that the answer is simple, it is because “people just do not know better” and that they are not trained to use alternative methods.

This description of the form and nature of a case study, seems to have started with a negative overtone or a cautionary introduction, so what does it mean when the term case study is used?

Robson (2011 p. 136) describes the term case study as:

“a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence”.

Yin (2003, p. 13) describes the term case study, from as a technical perspective as…

“an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly not evident”.

In the widest context, the definitions are similar, as would be expected; focused around the observation (empirical enquiry) of an event (phenomenon) within its naturally occurring environment (real-life) with the ultimate aim of developing understanding about those events, set in their environment. Bryman & Bell (2007, p. 62), articulate that a case study can be centred around an organisation, a location, an event or a person, they conclude that the most common use of the term case study is within a location, such as a workplace.

There are two strategies that can be employed within the design framework of a case study regime that of a:

- single-case design, and
- multi-case design.
Both strategies have advantages and disadvantages. Yin (2009, pp. 60-62) articulates that the general criticisms with respect to a single-case study are based around its ‘uniqueness’, he continues that such criticisms may turn into scepticism about the ability to do empirical work having only done a single-case study. Such scepticism, he suggests, can be reduced or even eliminated by the introduction of a multi-case design. Within the context of the single-case design, the researcher can conclude based upon the known environment. Within this environmental context, the researcher should ensure that they are aware of the emerging theories that might be relevant to study Yin (2003, p. 31):

- Individual theories: Individual behaviour, personality;
- Group theories: Family functioning, informal groups, work teams;
- Organisational theories: Bureaucracies, organisational structure, functions; and
- Societal theories: Urban development, international behaviour,

If the design is that of a multi-case model, it is or can be extremely difficult to replicate the environmental conditions therefore ensuring that all studies are of the same, known state. Careful planning, participant selection and case study protocols are ways to ensure stability across the multi-case spectrum. Yin (2009, pp. 60-62) recommends that within a multi-case design, each case must be selected so that it predicts either:

- Similar results (a literal replication); or
- Contrasting results but for predictable reasons (a theoretical replication).

Within this research, each case study was undertaken as a single case and written-up and analysed as such, due to the timeliness of each case, when the Researcher could gain access and so on. Data analysis to confirm research objectives was undertaken in a multi-axis, grouping the individual cases as to whether they operated within the Case X environment (RO1); whether they were external to the Case X environment (RO2) or whether they concerned with the external supply-chain (RO3).

A Cross-case Matrix was developed using the OC Profile Tool (Table 2-9, p. 50) as a reference point for further comparison of the DaCfA Toolset across the various continua of the OC Profile Tool and the analysis of the Theoretical Themes (RO4).

Yin (2009, pp. 60-62) introduces case study types from the context of a rationale, for a single-case approach. Bryman & Bell (2007, p. 63) suggest a case study typology which may be employed, either as a singular or mixed design for single-case or multi-case research frameworks. A case study framework can therefore be a construct in the form of:

- **Critical case**: testing a well-formulated theory or testing an hypothesis;
Research Methodology

- **Revelatory case**: this situation exists when an investigator has an opportunity to observe and analyse a phenomenon previously inaccessible to scientific investigation;
- **Unique or Extreme**: situations commonly occur in clinical psychology in which a specific disorder may be so rare that any single case is worth documenting;
- **Representative or Typical cases**: captures the circumstances of an everyday situation; and
- **Longitudinal case**: studying the same single case at two or more different points in time.

The eight case studies fell within three of the categories articulated by Yin (2009, pp. 48-49) and Bryman & Bell (2007, p. 63), that of:

- **Critical**, testing of the DaCfA Toolset and the TTs;
- **Representative or Typical**, as the case studies were undertaken the same workshop activity, testing the DaCfA Toolset; and
- **Longitudinal**, (to a lesser extent) as in a small number of activities, the cases were revisited over a period of time to capture trends and shifts in status.

The question must now arise over the dependability of the data generated and captured by the case study (be that singular or multi-case). At this point, the researcher requires to understand three distinctive, though related elements, Kelliher (2005, p. 123), Bryman & Bell (2007, p. 63 & 165), Bjork & Ottosson (2007, pp. 202-203), Robson (2011, pp. 85-93) &Yin (2009, pp. 40-45):

- **Reliability**, refers to the consistency and stability of the ‘output’ Bryman & Bell (2007, p. 162), the adoption of triangulation principles adds to the confidence and reliability of the findings, this is particularly important in single-case studies, Kelliher (2005, p. 123). Yin (2009, pp. 114-115) prescribes the use multiple sources of evidence (triangulation) as one of his three principles of data collection, the others are: maintain a chain of evidence and create a case study database (as a means of locating and codifying data during the case study). For this research reliability is addressed via the multi-triangulation of the suite of DaCfA Instruments (p. 53); the narrative within the case study write-ups and the narrative review from workshop participants as part of the DaCfA Instrument feedback, the consistency and stability of the output, particularly the adoption of triangulation of data sources as prescribed by Yin (2009, p. 45). Each Instrument return’s mean value is calculated and compared against the Threshold of Acceptability (3.50) as described at p. 36;

- **Generalisability**, sometimes referred to as external validity or replicability, Bryman & Bell (2007, p. 63), Yin (2009, pp. 43-44). Yin (2011, pp. 99-100), supported by Kelliher (2005, p. 123), is concerned with the extent to which the findings are generally applicable outside of the specifics of the entity studied. In this research, this concern is satisfied through the multi-case review and by comparing the whole (totality of cases), to those from within the Case X
environment; those outside the Case X environment and those associated with the external supply-chain.

- **Validity**, in the generic context of validity the researcher would set out to prove (or not) that the indicator devised to measure a particular concept, really measures that concept, i.e. in this study did the case study reflect what it set out to capture or measure (DeVellis, 2003, p. 49). For this Research, do similar or different Instrument statement responses correlate?

Robson (2011, pp. 87-88), Yin (2011, pp. 78-79) suggest seven forms of validity, namely:

- **Construct**: answering the question, does the measure, measure, what it should measure;
- **Internal**: establishing causal relationships, whereby certain conditions are shown to lead to other conditions;
- **External**: (generalisation) establishing the domain to which a study’s findings can be generalised;
- **Convergent**: gauging the validity of a measure through other methods (triangulation) Yin (2011, pp. 81-81);
- **Concurrent**: validation of a new measure, does it do “what it says on the tin”, though comparison with a measure of a known state, as an example job satisfaction –v-absenteeism;
- **Face**: that the measure reflects the concept of the question; and
- **Predictive**: a similar concept to concurrent validation, but looking at future levels rather than a current perspective.

For this research, various forms of validity are observed; construct in the Instrument statements; internal where one phenomenon within a case leads to another; external concerning the TTs and their ‘appearance’ across the various case studies; Convergent, through the application of triangulation across the case data sources; concurrent the comparison of Instrument ratings and the feedback comments received and the case study narrative.

Collectively reliability, generalisability and validity relate to confidence. Confidence can be viewed from two further perspectives: an intra-perspective, this would arise from an appreciation of the researcher’s own ability in constructing and conducting an unbiased case; and an external perspective, faith that the case study findings can be relied on, that any biases were known, minimised or eliminated that the case study process was transparent. From a confidence perspective, the DaCfA Instruments were viewed by a Chartered Psychologist to ensure that any bias within the individual statements, within the Instruments, was eliminated or reduced to a minimum such that it did not impact upon the credibility of the research output.

Robson (2011 pp. 91-93) supports the view, and cites Shipman (1997), when he suggests that researchers should go beyond the traditional views of reliability, generalisability and validity. In
addition he suggests considering the **credibility** (sufficient detail on the way the evidence was produced for the credibility of the research to be assessed) and **objectivity** (multiple observers agree a phenomenon rather than a single observer). He argues that these additional attributes, when applied to a case study, can be used as a means of establishing its **trustworthiness**, a view of how the case study was approached and undertaken in an unbiased way.

In the context of this research, the credibility for the research cases comes from the methodological approach to data collection established in and operating to a Case Study Protocol (Appendix C), building the detail as to how data was collected and analysed. A robust method of data analysis was developed to ensure a comprehensive review was carried out (pp. 34-39); a consistent approach of case study write-ups; trustworthiness, as the case studies have been undertaken in an unbiased way. This was built in by the verification and validation of Instrument Statements by a Charter Psychologist at the construction of the DaCfA Toolset instruments. Objectivity for the research case studies is increased by the review of the case studies carried out by the independent reviewers for the TTs together with the multi-data sources aiding the triangulation of the various DaCfA Toolset instrument sets and the cross reference to the independent review of the case studies. The Case study write-ups were reviewed by four reviewers rather than a single observer, and the extent to which their observations concur is discussed below (pp. 43-44)

There are two main forms of data capture employed during the case studies, that of observation by the researcher (and facilitators) recorded in the case study write-ups and that obtained via the completion of a suite of instruments aimed at specific artefacts of the DaCfA Toolset.

A Case Study Protocol as prescribed by Yin (2009, pp. 79-90) was produced and used as the guide for engagement with the case organisations; it also covers the content of case study write-ups, etc., Appendix C. The protocol describes the:

- Procedures for undertaking the case study;
- Instruments and observation *aide memoires* for data capture;
- Facilitation aid; and
- Guide for case study reports.

The data collected during the case studies consisted of many of the classes of evidence described by Yin (2009, pp. 101-114):

- **Archival**, from the ‘Pilot’ Case Xa activity consisting of ServQual;
- **Interview**, from Case Study Participants and Independent Facilitators (documented within the case study write-ups);
- **Participant** statements on DaCfA Toolset artefacts, via completed Instruments, (see Appendix I); and
- **Documents**, with respect to Case study write-ups.
Focus Groups

The term focus group could imply the social banding together of individuals for the common good of the subject matter concerned, a contextual focus for the subject concerned. Such focus groups might also imply a physical meeting. Focus groups are described by Threlfall (1999, p. 102) as a qualitative technique allowing for the explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group. Kamberelis & Dimitriadis (2008, p. 377), describe focus groups as little more than quasi-formal group discussions, conversations and the like. Robson (2011, p. 294) describes a focus group, as a group interview on a specific topic.

The case studies undertaken within this research adopted a quasi-focus group approach, consisting from two to eight participants for each case study who had been selected by the team leaders based on their particular understanding of the area where the DaCfA Model and Toolset was to be applied. The selection of individuals to participate within a particular focus group should be made with the matter of bias in mind. Yin (2009, p. 142) comments that focus groups have their “own dynamics that will need to be managed”.

Where full representation of a particular community is impracticable due to size, then appropriate stratification techniques should be employed to ensure total representation. Appropriate consideration must also be given to the ethical issues involved, particularly where sensitive issues for the organisation or individuals are concerned. Jordan, Lynch, Moutray, O’Hagan, Orr, Peake & Power (2007, p. 12) describe the process of debriefing participants at the end of every interview, ensuring that any emotional issues from participants were particularly understood. Within the research case studies there was never a requirement to stratify participants due to the numbers involved; however the output from each case study was fed-back to the participants for comment prior to formal issue (see Appendix H as an example).
Step 2 – Capturing Participant Feedback on the DaCfA Toolset

This second step of the research framework (Figure 2-3) is concerned with soliciting feedback on the DaCfA Toolset from participants of the case studies. To do this effectively and efficiently a suite of data capture tools was developed.

![Research Framework Step 2- Capturing Participant Feedback on the DaCfA Toolset](image)

<table>
<thead>
<tr>
<th>Research Input/Output or Control</th>
<th>Research Method</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
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<td><strong>Inputs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Study Feedback Presentation (Appendix H).</td>
<td>Action Research Case Study - Single Case Case Study –Multi Case Narrative Review Theme Analysis</td>
<td>Primary</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed DaCfA Toolset Instruments from Participants and Team Leaders.</td>
<td>Focus Groups (Workshops) Instrument Survey Qualitative Method</td>
<td>Qualitative</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2-3: Research Framework Step 2- Capturing Participant Feedback on the DaCfA Toolset. Source: Author.

Instruments and Surveys

One of the primary tools used for data capture within social science research is that of an instrument (questionnaire). Robson (2011, pp. 252-253) describes a ‘good’ questionnaire as one that:

- Provides a valid measure of the research question;
- Gets cooperation of respondents; and
- Elicits accurate information.

The DaCfA Suite of Instruments (questionnaires that enabled the participants to feedback on the usability and effectiveness of the facets of the DaCfA Model and Toolset) were designed with these two factors in mind, they:
• Contained statements (questions) specifically to validate if the DaCfA artefacts are usable and effective;
• Were short in length to enable quick and easy completion; and

Frazer & Lawley (2000, p. 6) argue that instrument design and administration must fit into the much larger research process so that the resultant instrument provides the necessary information to answer the specific research questions. Robson (2011, p. 252) stresses that the statements within a survey instrument should be designed to achieve the goals of the research.

The data capture instrument is a very powerful tool for capturing relevant information about a specific, defined subject area. The instrument however is only as robust as the construction process it goes through.

In the context of this research, the use of an instrument is classed as quasi-quantitative. Due to the potential for designed-in bias at the point of construction of an instrument, every effort to reduce or minimise bias has been taken. However, it is recognised that in most cases it is virtually impossible to remove bias altogether from these forms of instruments, as the respondent might also have a form of bias, in what they read into a particular statement within the instrument, (Oppenheim, 1992, pp. 102-103).

The suite of 11 DaCfA Toolset Instruments was developed, eight of the instruments were specifically aimed at each DaCfA Toolset items, namely the:
• Purpose Template;
• Customer Matrix;
• Supplier Matrix;
• Relationship Matrix;
• Agreement Template;
• Controls Template;
• Risk Mitigation Template; and
• Measurement Template.

In addition there were three further instruments:
• Overall Activity Instrument;
• Team Leader Instrument; and
• Facilitator Instrument.
**Developing the DaCfA Toolset Instruments**

The instruments took the form of scaled (close-ended) responses with a final single open-ended statement asking if there were any comments (set in the context of the instrument). Closed-ended statements can take a number of forms, examples of which are:

- Single close-ended statement, how many days leave are you entitled to?
- Dichotomous closed ended statements (contrast between two answers);
  - yes / no responses
- Multichotomous close-ended statements (multi-choice responses);
  - a choice of answers where the responder may select only one or a number of the available answers; and
- Scaled responses where the responder plots their answer against a scale which reflects the best fit to their perception. An example is the Likert scale which offers responses to a statement from strongly agree, agree, uncertain, disagree and strongly disagree.

The latter, a Likert type, widely used for measuring opinions, beliefs and attitude scaled responses DeVellis (2003, p. 78-79) was used within the DaCfA Toolset Instruments, an even scale of response (Figure 2-5, p. 30) was utilised to force a decision either positively or negatively against the set threshold of acceptance (3.50 rating) (p. 36).

Frazer & Lawley (2000) offer a number of areas to consider when constructing a data capture instrument:

- What is the specific ‘question’ that is being answered?
- Will the ‘question’ be answered more effectively with open/closed statements?
- How will the statements be analysed?
- What is the target audience?
- What are the timescales?
- How will the ‘survey’ be administered?

The target audiences were workshop participants, team leaders and facilitators. The surveys were administered immediately after the DaCfA Workshops, and/or administered by email. The statements were designed to test the usability of the DaCfA Toolset and their analysis is detailed below (pp. 48-54).

An instrument design process is offered by Frazer & Lawley (2000, pp. 19-35). This five stage process, which was used to develop and implement the DaCfA Toolset artefacts instruments, is illustrated in Figure 2-4, p. 29.
Research Methodology

Stage 1: Determine the required information and from whom it should be sought
Identify the information required to be captured by the instrument using the research objectives/hypotheses/questions as the datum point maintaining the focus on the research ‘aim’ and understanding from whom the data will be collected.

As an example for this research, one aim is to understand how well the DaCfA Toolset is transferable to organisations outside of the Case X environment. The instruments were targeted at three specific groups:

- Workshop participants;
- Team Leads; and
- Facilitators.

All three groups experienced the DaCfA Toolset in different contexts and specific instruments were designed for each specific target audience. Each group ultimately judged whether or not the DaCfA Toolset artefacts (templates and matrices) were useable and effective from their perspective and in their context.
Stage 2: Determine the interview method and the length of instrument

This step is concerned with how the instrument is to be administered and the form that it might take. There are a plethora of modes by which a instrument can be administered, paper mail-shot; electronic mail-shot; web-based systems; automatic telephone surveys; people administered telephone surveys, and so on, all of which have their advantages and disadvantages.

It is also important to consider the timing of the ‘survey’ Sudman & Bradburn (1982, p. 21) caution that the human memory is fallible. Timing is therefore essential to get the true perception of an activity, rather than a shadowy memory of something that happened is the long distant past.

For this research, the surveys (suite of DaCfA Toolset Instruments) were administered to Workshop Participants and Team Leads immediately after the activity had been completed. Where multi-participants were involved a single point of contact was selected and used as the conduit to and from the organisation concerned.

Stage 3: Prepare the draft instrument

It is essential that the statements of the instrument are based upon the research aim and each constructed statement must be screened to ensure that any bias within the statement is eliminated; this is ensured through careful phrasing of each statement, thus ensuring neutrality. The DaCfA Toolset Instruments were constructed using Fowler’s (1995, p. 103) seven principles of good question design, see Table 2-3, p. 31.

The Instruments were designed to capture participant’s views concerning the usability and effectiveness of the DaCfA Toolset (Principle One). The statements within the Instrument were designed to as one specific question at a time “Completing the Purpose Matrix added value to the Organisation?” (Principle Two). The same Instrument was provided to all participants across all case studies (Principle Three). The same Instruments were administered through a single focal point within each organisation (Principle Four). A brief was given to all workshop participants regarding the completion of the survey, also the scale was developed in such a way to avoid ambiguity (Principle Five). Figure 2-5, provides an example to the simple scales that were used, the quite distinctive outlying descriptors and an even scale encourage the responder to make a decision.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

. Figure 2-5: An Example of Statement Scale. Source: Author

---

3 For this Research the suite of instruments utilised was reviewed by a Chartered Psychologist to ensure that any bias was reduced to a minimum.
Attitude Scaling

When deciding upon the scaling mechanism there are a number of elements to consider, including the use of an even or an odd scale. One criticism of an odd scale is that there is an opportunity for the responders to select a neutral position. For the DaCfA Toolset Instruments a Likert-type even-scale was selected, as this best suited the close-ended scalable approach selected, to stop individuals ‘sitting on the fence’ to selecting a middle rating, that is on a scale 1 to 5 they would rate 3. An even scale 1 to 6 would force such a score to either a 3 or a 4. The use of an even scale removes the possibility of selecting a neutral rating and forces a decision one way or the other (DeVellis, 2003, p. 77).

The Instruments were constructed with the minimal number of statements (four to eight) to gather the data required (Principle Six).

Each Instrument was clearly labelled as to which artefact it concerned, that is the Purpose Template, and so on, and the context in which the respondent was answering for example as Team Leader (Principle Seven).

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>The strength of survey research is asking people about their first-hand experiences.</td>
</tr>
<tr>
<td>Two</td>
<td>Ask one question at a time.</td>
</tr>
<tr>
<td>Three</td>
<td>Statements should be worded so that every respondent is answering the same question.</td>
</tr>
<tr>
<td>Four</td>
<td>If surveys are to be administered then protocols are required to ensure consistency of approach in that administration process.</td>
</tr>
<tr>
<td>Five</td>
<td>Clearly communicate what kind of answer constitutes an adequate answer.</td>
</tr>
<tr>
<td>Six</td>
<td>Design the instruments (questionnaires) to make it as easy as possible for interviewers (where applicable) and respondents to follow instructions and record answers.</td>
</tr>
<tr>
<td>Seven</td>
<td>Measurement will be better to the extent that respondents are orientated to the task in a consistent way.</td>
</tr>
</tbody>
</table>

Table 2-3: Principles of good statement design. Source: adapted from Fowler (1995).

For open responses, careful thought is required to determine how these can be most effectively analysed - are pre-determined keywords to be associated with certain phrases, and how will the researcher deal with unexpected narrative responses? Frazer & Lawley (2000, p. 27) advise that open-ended statements are best used in small-scale surveys, such as this research where the last statement within every DaCfA Toolset Instrument stated: “Are there any other comments you wish to make regarding the activity in particular or the [inset name] Matrix/Template in general?”.
Stage 4: Pre-test and revise the instrument

The process of pre-testing or piloting the data collection instruments is a critical part of the administration process. Pre-testing enables the researcher to try out data analysis techniques, and check the properties of the data collected. It should also be used to identify (Frazer & Lawley, 2000):

- The communication methods that are to be used for the survey;
- If the time claimed to complete the instrument can be met;
- Are the instructions for completion clear; and
- Are there any gaps within the administration plan.

Any major adjustments to the statements (there were none for the pre-testing carried out for this research), might cause retesting, where pre-testing has completely validated the style and content of the questionnaire, then it is permissible to use these pilot responses within the overall sample. The instruments were pre-tested with a Chartered Psychologist who assisted in the removal of any ambiguity to ensure clarity of the statements that were contained within the suite of instruments, which tightened up the statements, e.g. As Team Leader, I would recommend this type of activity to others. It also ensured that bias was not built in any of the statements.

Stage 5: Assess the reliability and validity of the instrument

The methods of assessing reliability and validity have been covered at pp. 22-23, with examples of how it was achieved for the DaCfA Toolset Instruments.

**Developing the DaCfA Toolset Instruments - Summary**

As a first Stage the Researcher considered the totality of the information required to confirm fulfillment of Research Objectives 1-3 and the extent of the suite of instruments needed to capture that information, that is, what statements were required to provide evidence of the usability and effectiveness of the DaCfA Toolset.

The second Stage was to determine the length of the each instrument and the method of data capture. Each instrument was required to capture specific data regarding the usability and effectiveness of each artefact of the DaCfA Toolset. Each instrument was to contain a minimum of four statements, and a maximum is 12. Each participant received a copy of each instrument for completion, by email via a focal point within the organisation.

The third Stage developed the draft of the instrument. A method of codification was developed so that each completed instrument could not be directly attributed to an individual.

In the fourth Stage the instruments were tested. Testing was carried out within the safe environment of Case X; the pre-testing enabled the review of captured data:
Did it provide the answers required?

How easy was the data to analyses?

The fifth Stage was to confirm the reliability and validity of the Instrument. The correlation between the Case Study narrative, the participant ratings and their supporting comments within the completed Instruments confirmed that the Instruments were capturing the pre-designed data requirements.

**Step 3 – Data Analysis of the DaCfA Toolset Instrument Returns**

This third step of the research framework (Figure 2-6) is concerned with analysis of the completed DaCfA Toolset Instruments, and of the narrative content of the Case Study Write-up.

<table>
<thead>
<tr>
<th>Research Input/Output or Control</th>
<th>Research Method</th>
<th>Data Type</th>
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</thead>
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<td><strong>Inputs</strong></td>
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<td>Case Study Write-ups.</td>
<td>Case Study- Single Case</td>
<td>Qualitative</td>
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<td>Case Study – Multi Case</td>
<td>Quantitative</td>
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<td>Narrative Review</td>
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<td></td>
<td>Theme Analysis</td>
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<td></td>
<td>Instrument Survey</td>
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<td></td>
<td>Qualitative Method</td>
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<td></td>
<td>Quantitative Method</td>
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<tr>
<td></td>
<td>Mixed Method</td>
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<td>Research Framework (Appendix K).</td>
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<td>Acceptability Algorithm 3-1.</td>
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<td>Blank Tables A&amp;B (Appendix G).</td>
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<tr>
<td>Blank Summary Table 5-3.</td>
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</table>

Figure 2-6: Research Framework Step 3- Data Analysis of the DaCfA Toolset. Source: Author.
Data Analysis

There are three main sources of data generated by this research, they are:

- DaCfA Toolset Instrument returns (quantitative and qualitative);
- Case study write-ups (qualitative); and
- Reviewer Observations of Theoretical Themes from case study write-ups, covered at pp. 46-48, (qualitative and quasi-quantitative).

This Research is concerned with quantitative, qualitative and quasi-statistical data and with the use of descriptive statistical methods of arithmetic ‘averaging’. Due to the predicted small sample sizes, non-parametric methods of statistical analysis were investigated, but these were found to be inappropriate due to the nature of the data generated.

Testing the DaCfA Toolset

This analysis is focused on the Toolset matrices and templates as they are grouped in DaCfA Model, Figure 2-7:

![Figure 2-7: The DaCfA Model (Chapter 4, p. 97). Source: Author.](image)

Data collection and analysis is based upon the DaCfA Toolset Instrument returns, which are captured as four separate views:

a) DaCfA Toolset Instruments (eight in total, one for each of the toolset artefacts (matrices and templates) for completion by the workshop participants);

b) Overall Activity Instrument (a single generic instrument regarding the toolset for completion by the workshop participants);

c) Team Leader Instrument (as the activity sponsor); and

d) Facilitator Instrument (for facilitator comment).
The eight instrument returns are grouped and analysed in relation to each specific aspect of the DaCfA Model, that is:

- **Purpose**
  1) Purpose Template;

- **Customer Requirements**
  2) Customer Matrix;
  3) Supplier Matrix;
  4) Relationship Matrix;

- **Controls**
  5) Agreements Template;
  6) Controls Template;
  7) Risk Mitigation Template;

- **Measurement**
  8) Measurement Template;

Analysis is also carried out on the feedback received regarding the:

9) Overall (DaCfA) Activity; and
10) Team Leader Perspective.

Each of these ten contextual reviews are analysed in the same four perspectives:

1. Vertically down through the Case Study to understand how each of the cases embraced the DaCfA Toolset. Utilising Table 2-4, p. 37, (data source captured in Table A within Appendix G). Commenting of any TT observations associated to the particular DaCfA Toolset artefact;

2. Horizontally across the Case Studies to determine which instrument statement received the better/worse rating and how that affects upon the case assessment and why. Utilising Table 2-4, p. 37, (data source captured in Table A within Appendix G);

3. In a Cross-case (Instrument Review) Context, to understand what impact the position of an organisation on the OC Profile Tool has upon the perception of the ‘usability’ and ‘effectiveness’ of the suite of DaCfA Toolset matrices and templates. Utilising Table 2-5, p. 39, (data source captured in Table B within Appendix G). Addressing and differences between Researcher and Independent facilitation; and

4. In a Cross-case (TT Observation) Context, to comprehend each case study organisation’s perspective of the theoretical themes as derived from the literature. Utilising Tables 2-7 and 2-8, p. 48.
Constructing the various Data Tables

There are a number of data tables that require to be populated to aid data analysis within Chapters 5 and 6, their purpose, together with the algorithms use to populate them, is listed below.

Threshold of Acceptability

Purpose

Set to determine the baseline from which a positive or negative rating of a DaCfA Toolset artefact can be assessed.

Constructing the ToA

<table>
<thead>
<tr>
<th>Algorithm 2-1: Threshold of Acceptability (ToA). Source: Author.</th>
</tr>
</thead>
</table>
| \[
| \text{ToA} = \frac{\sum \text{integers}}{\text{No. integers}} \\
| \text{ToA} = \frac{1 + 2 + 3 + 4 + 5 + 6}{6} = \frac{21}{6} \quad \Rightarrow \text{ToA} = 3.50 \\
|---------------------------------------------------------------|

Table A of Appendix G

Purpose

This table is constructed to provide the Mean and Quasi-statistical Mean (mean of mean) data for the DaCfA Instrument returns for all of the eleven instruments. It captures data by individual statement and Case perspectives.

Constructing Table A

This was completed in four steps as is indicated in Table 2-4 by transposing the data from the completed Instruments. Where Case C, G and H are concerned, because there were multiple returns due to the workshop sizes, the arithmetic median was calculated for each statement and inserted into the appropriate area.

Area 1 (1a. and 1b.) is acquired directly from the completed instruments (or as detailed above for Cases C, G and H).

Area 2 records arithmetic Mean for each of the Instrument Statements (horizontally across the case).

Area 3 completed as per Area 2, but in this context the ‘averages’ and range are calculated vertically through a single Case rather than horizontally across the cases.
Area 4 completed with the Mean and Range values from the Statements and the Cases from Areas 2 and 3.

<table>
<thead>
<tr>
<th>Instrument Title:</th>
<th>Case</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement</td>
<td>A</td>
<td>B</td>
<td>C (2)</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G (8)</td>
<td>H (5)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Area 2</td>
</tr>
<tr>
<td>2</td>
<td>Area 1a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Area 3</td>
</tr>
<tr>
<td>Case Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement Means Range §</th>
<th>Statement Mean/Mean ‡</th>
<th>Case Mean Range ∞</th>
<th>Case Mean/Mean ≠</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comment: Area 1b

Table 2-4: Population of Table A Series Template. Source: Author.

When the data is reviewed in this form it becomes easier to comment on the overall value of the DaCfA Toolset rather than just the value that one organisation obtained from the tool. Regarding the returned values, the higher the average the stronger the perception of the respondents (workshop participants). The Range is utilised to determine the consistency of the results from a Case or a statement across the various cases. The range can be seen as a measure of stability of the results, the nearer to zero the better the result.

Table B of Appendix G

Purpose

This table is constructed to provide Quasi Mean and Quasi Range data for DaCfA Instrument returns for all of the eleven instruments but with the cases grouped as their Organisation Continuum Profile descriptors (Appendix B):

- Customer Interaction;
- Product Type;
- Service Culture;
- Business Excellence Rating; and
- Group Size (Facilitation Style).

Constructing Table B

This was completed in four steps as is indicated in Table 2-5 by transposing the data from the completed Table ‘As’ mean and range values. Table B is categorised by the organisations’ self-
assessment against their allocated position against four of the OC Profile Tool continua as detailed above pp. 17-18.

**Zone 1** – the Mean Value for Table 2-5 - is populated by calculating the mean value of the case means from Area 3 of Table 2-4. For example, using the Purpose Template (Appendix G, Table A1) and Continuum - Customer Interaction and Descriptor – Integrated, we obtain the value to be recorded in the Mean Column by taking the Case Mean Values from Area 3 of Table 2-4 for Cases C and D and calculating the arithmetic mean of these to values.

**Zone 2** – The Range Value of Table 2-5 - is calculated in a similar manner to that of the Mean Value described above, in this case the Case Range values from Area 3 of Table 2-4 are utilised.

Using the Purpose Statement Instrument at Appendix G, Table A1 as an exemplar the Zone 1 and Zone 2 values are calculated thus:

\[
\text{Mean} = \frac{(C=5.1 + D=4.8)}{2} = 4.95 \quad \text{and} \\
\text{Range} = \frac{(C=0.5 + D=1)}{2} = 0.75
\]

Algorithm 2-2: Generation of Mean and Range Values for Table B of Appendix G. Source: Author.

**Zone 3** – Percentage Difference Mean Ø for Table 2-5 - is calculated for each continuum by:

\[
\frac{\text{Percentage Difference Mean } \bar{\theta}}{\text{Average Larger/smaller value Zone 1}} = \frac{\text{LARGER value Zone 1 - smaller value Zone 1}}{\text{Average Larger/smaller value Zone 1}} \times 100
\]

\[
: \quad \text{Mean } \bar{\theta} = \frac{(4.95 - 4.48)}{0.75} \times 100 = \frac{0.47}{1} \times 100 = 9.97 \text{ or } 9.97\%
\]

Algorithm 2-3: Generation of % Difference Mean Values for Table B of Appendix G. Source: Author.

**Zone 4** – Percentage Difference Range ŝ of for Table 2-5 - is calculated for each continuum by:

\[
\frac{\text{Percentage Difference Range } \bar{s}}{\text{Average Larger/smaller value Zone 2}} = \frac{\text{LARGER value Zone 2 - smaller value Zone 2}}{\text{Average Larger/smaller value Zone 2}} \times 100
\]

\[
: \quad \text{Range } \bar{s} = \frac{(2.00 - 0.75)}{1.375} \times 100 = \frac{1.25}{1} \times 100 = 90.91 \text{ or } 90.91\%
\]

Algorithm 2-4: Generation of % Difference Range Values for Table B of Appendix G. Source: Author.
Step A – Framing the Theoretical Themes

This first step of the research framework (Figure 2-8, below) regarding the Theoretical Themes is concerned with capturing the initial themes as provided by the Pilot activity (Case Xa) and through the literature review and then framing these themes to facilitate their observation (or not) in organisations undertaking a Customer-focused activity.

![Figure 2-8: Research Framework Step A - Framing the Theoretical Themes. Source: Author.](image-url)
Emerging Theoretical Themes

Through the initial activities within the Pilot activity within Case Xa and the development of the DaCfA Toolset, a number of themes concerning an organisation’s approach to measurement, the supply-chain; communications; controls employed; the organisation’s Mission/Vision and Risk were identified.

Typical themes that were emerging were that organisations did not understand the context of the supply-chain, particularly where it was possible for an organisation to be both a customer and supplier in different delivery scenarios. Other emerging themes were that business areas were claiming that they had a fully integrated suite of measures, but in many cases these measures were not articulated, for example, how the data collected would be used to improve the item being measured.

These emerging themes were labelled Theoretical Themes (TT) and through secondary research in the form of a Literature Review, evolved into the 23 TTs described at Appendix E.

A working hypothesis was developed that certain TTs would be evident in certain types of organisation, for example organisations obtaining a high score on the Business Excellence (BE) Model (greater than 600 points) would be able to articulate how measures are described, and how data is captured and utilised to improve aspects of the product or service being delivered to their customers. Organisations with low BE scores (less than 300 points) may not be able to articulate such measures and processes with same clarity.

The further development of the initial themes from Case Xa has followed the Glaser & Strauss (1967), Strauss & Corbin (1997) or the Glaser (1999) ‘coding’ methodology described by Douglas (2003). Firstly, key words were developed by reviewing literature and written case studies containing observation data as well as a review of the completed participant questionnaires (open ‘coding’). As the research continued these keywords were further honed and cross-links identified between the various cases to confirm the TTs (axial ‘coding’); finally an independent review was undertaken to validate the TTs and to identify the central themes of the research (selective ‘coding’).

Parker & Roffey (1997, p. 212) argue that a theory derived from data is more likely to resemble reality, than one derived from ‘experience’ or ‘speculation’. This form of theory might be classed as a quasi-quantitative approach to developing theory; quantitative in the context that it is concerned with data, but quasi because the data may not be pure from a quantitative perspective; Parker & Roffey (1997, p. 224) contrast this perspective by stating that grounded theory falls directly within the qualitative research paradigm. So what precisely is the point for this research and its process?
The reviewer observation process (for TTs, pp. 44-45) is an observer-triangulation approach as described by Robson (2011, p. 158) citing Denzin (1998); where corroborated observations between reviewers are identified before any claim to the existence of a TT within a Case is made.

Secondary Research

The use of secondary information (narrative review) within any research strategy might be as a primary input, or as part of a triangulation strategy to validate any empirical research that has been undertaken. Stewart & Kamins (1993, p. 5) identified a number of advantages with respect to the use of secondary data streams. The most significant is that related to time and expense since, generally, is much less expensive to use secondary data (if available), compared to undertaking a primary investigation. The secondary data for this research was the previous data within Case Xa (data from pilot activity); website information and the literature review (books and journals) all of which assisted the articulation and framing of the TTs.

The developing themes were compared with literature using keywords such as:

- Service Quality;
- Customer Interaction;
- Supply-chain;
- Customer Focus;
- Internal Customer;
- Customer Relationship Management;
- Measuring Service Quality;
- ServQual;
- Public –v- Private Context;
- Process Management;
- Charters and Service Level Agreements;
- Mission, Vision, Strategy and Leadership; and
- Communications.

In excess of 500 articles have been reviewed to identify themes, and 320 of those have been listed within the References. These were used to feed into the Action Research process as the TTs were framed. The methods of review included content review though a system of narrative classification as described by (Elliott, 2005, p. 38).

Robson (2011 p. 50) suggests that researching the background of a particular field before any research activity is to take place is a critical element of any research strategy. This background information would be concerned with establishing what is already known about the subject under scrutiny, Carter (1999, p. 12). Such subject matter is mainly obtained from books, journals, industrial and academic reports, conference papers and websites. The lineage (validity) of all material, but particularly that
obtained via websites, requires to be established before such information is employed within the research methodology.

A Literature Review, according to Bryman & Bell (2007, p. 95) should be undertaken to identify the following issues:

- What is already known about the subject?
- What theories and concepts are relevant to the subject?
- What research methods and strategies have been previously employed in studying this subject?
- Are there any unanswered research questions associated with this subject?
- Are there any inconsistencies in findings relating to this subject? and
- Are there any significant controversies?

Bryman & Bell (2007, p. 95) further suggest that the latter three bullets can usually be used to help shape and refine any research questions. The Literature Review is seen by Carter (1999, p. 10) as a key stage within any research methodology and is essential to help shape the research questions and will then be used later within the research framework to substantiate any alignment to or moves from established knowledge regarding that subject.

A number of disadvantages with the use of secondary data are seen by Stewart & Kamins (1993, p. 5):

- That the data in its original form was collected for a particular purpose, therefore that data may be in a particular format that makes it difficult to codify for its new usage;
- The data is aggregated at such a level that it is inappropriate for further usage outside that for which it was originally obtained; and
- Data may be time based and therefore does not reflect current thinking or practices.

Stewart & Kamins (1993) strongly caution against taking empirical research at face value. The use of multiple source of information, where practicable and possible is ultimately, they argue, the best defence against being misled. For this research, the main source of secondary data was journal articles and books from reputable publishers and previous activity data generated in pilot activity Case Xa by the Researcher.

**Step B – Review of Case Study Write-ups**

This second step of the research framework (Figure 2-9) regarding the TTs is concerned with reviewing the case study write-ups to observe the TTs within the narrative. For this a concise reviewer protocol (Appendix L) was established to ensure consistency of observation.
**Theme Analysis**

Theme analysis is a qualitative approach to the identification of trends within narrative data sources, where conventional forms of quantitative analysis would not be the appropriate method of data analysis due to the format of the data available.

The method and form of data collection that this research has taken did not lend itself to the conventional and more traditional form of quantitative data analysis. As the Researcher gained a greater understanding of the available data, focussed centred around the case study outputs, it became evident that a more qualitative approach to data analysis would be required.

**Context of Theme Analysis**

The term or subject of Theme Analysis can be found under many different titles, dependent upon the author or the subject field.

Ryan & Bernard (2003), agree with Ophler (1945), that themes come from data and therefore theme analysis in all its forms is an inductive approach, and the discovered themes are induced from empirical data, texts, images and sounds. Discovering themes within research data is therefore the
open ‘coding’ approach within Grounded Theory. Ryan & Burnard (2003), describe several varied approaches to theme generation and analysis:

- The review for similarities or differences within a subject;
- Metaphors used to describe activities within a subject;
- Missing data analysis, the review of what is not present, rather than what is present; and
- Theory-related Material.

All different in output but consistent in the context and goal of theme generation. In this review, the theme analysis took a number of guises:

- Reviewer observation of TTs within case study write-ups;
- Commentary within case study write-ups to support ratings from Instrument Returns;
- Commentary within the DaCfA Instrument returns; and
- Literature review.

Quasi-statistical analysis, as described by Yin (2009, p. 79), was also undertaken of the TTs, where corroborated observations were, (through algorithms described at p. 47) converted into Percentage Corroboration \( N \) and Strength of Corroboration \( A \). Data analysis and discussion were then focused around these Quasi-statistical ratings and captured in Table 2-7 (p. 48) and Table 2-8 (p. 48).

**Theoretical Themes (TT) Review**

The methodology for the verification of the TTs within the research case studies, is described below. It is the verification of the TTs within the suite of research case studies that is used as evidence for the satisfaction of RO4.

The method of the development and application of the analysis of themes took six distinct steps:

1. **Development of Theoretical Themes:**
   The Researcher carried out a review of early activities within Case Xa, noting themes that either re-occurred throughout or appeared to be consistent in other organisations through the use of secondary data (literature review). These themes were fashioned into Theoretical Themes. The Researcher, identified that the TTs could be grouped into Keywords which aligned with the DaCfA Model (namely, Purpose, Customer Requirements, Controls and Measurement). See Appendix E for the list of 23 TTs and associated Keywords;

2. **Selection and Brief of Reviewers:**
   To verify that the TTs were present within the case studies and to build robustness into the review of the TTs, four Reviewers (with different backgrounds and knowledge of the research) were selected to review the case studies and to populate a codified matrix;
3. **Theoretical Themes Codified Matrix Constructed:**
A codified matrix (TTs –v- Case) Table 2-7, p. 48 and Table 2-8, p. 48 (Cases –v- Keywords) was constructed into which Reviewers’ (independent and Researcher) observations could be assigned;

4. **Independent Review of Case Studies:**
Each reviewer carried out an independent review of each case study populating the codified matrix. This resulted in four sets of reviewed case studies, with populated codified matrices, which were combined into one codified matrix containing singular and corroborated observations from the four reviewers;

5. **Reviewer Alignment to Theoretical Themes:**
After each of the reviewers had undertaken the review of the suite of case studies for TTs, the Researcher analysed the findings to establish robustness in the Reviewers’ observations. Table 2-6, below identifies the corroborated levels that for each Reviewer’s observation of the TTs. As the Researcher was Reviewer 3 the table demonstrates that the sample was not biased by the Researcher’s involvement, and, due to a high corroboration rate, the TTs do appear to be observable within the Case Studies rather than random guess by an individual reviewer;

6. **Calculation of Percentage and Strength of Corroborations:**
Once the robustness of the data was established, the single source codified matrix was analysed in two contexts for strength (concerned with the corroboration of the observations) and percentage with the number of observations (corroborated). The algorithm to assist in the statistical review of the data is below. The codified matrix was also was as a data feed for the Cross-case analysis (Table 2-10, p. 50).

<table>
<thead>
<tr>
<th></th>
<th>Observations Made</th>
<th>Corroborated Observations</th>
<th>% Success Rate</th>
<th>Rank</th>
<th>Best Fit with</th>
<th>Worst Fit with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewer 1</td>
<td>42</td>
<td>38</td>
<td>90</td>
<td>1</td>
<td>Reviewer 2</td>
<td>Reviewer 3</td>
</tr>
<tr>
<td>Reviewer 2</td>
<td>33</td>
<td>26</td>
<td>79</td>
<td>3</td>
<td>Reviewer 4</td>
<td>Reviewer 1</td>
</tr>
<tr>
<td>Reviewer 3</td>
<td>64</td>
<td>51</td>
<td>80</td>
<td>2</td>
<td>Reviewer 4</td>
<td>Reviewer 2</td>
</tr>
<tr>
<td>Reviewer 4</td>
<td>76</td>
<td>53</td>
<td>70</td>
<td>4</td>
<td>Reviewer 3</td>
<td>Reviewer 2</td>
</tr>
</tbody>
</table>

Table 2-6: Reviewer Corroboration Rates. Source: Author.

**Step C – Analysis of Theoretical Theme Findings**
This third step of the research framework (Figure 2-10) regarding the TTs is concerned with analysis of the TT data. This was carried out in two contexts:
- percentage and strength of the reviewer observations; and
- Cross-case Matrix.
### Research Methodology

---

**Inputs**
- Cross-case Matrix (Appendix J).
- Case Study Write-ups.

**Outputs**
- TT Observations Captured in Tables 5-1 & 5-2.

**Controls**
- Framed set of Theoretical Themes (Appendix E).
- Blank Tables 5-1 & 5-2.
- TT Percentage and Strength Algorithms 3-2 & 3-3.
- Research Framework (Appendix K).

<table>
<thead>
<tr>
<th>Research Input/Output or Control</th>
<th>Research Method</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>Literature Review</td>
<td>Primary</td>
</tr>
<tr>
<td></td>
<td>Narrative Review</td>
<td>Secondary</td>
</tr>
<tr>
<td></td>
<td>Theme Analysis</td>
<td>Qualitative</td>
</tr>
<tr>
<td></td>
<td>Qualitative Method</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed Methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Triangulation</td>
<td>Quasi-Quantitative</td>
</tr>
<tr>
<td>Outputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**TT Percentage and Strength Algorithm**

To enable the analysis of the TTs in a Quasi-statistical context the TT observations as observed by the four Reviewers are translated into a Quasi-statistical number in terms of ‘Percentage’ (Å) and ‘Strength’ (Ñ) of the corroboration of the reviewers’ observations of Theoretical Themes where:

- **Percentage** is associated with the number of corroborated observations compared to the potential corroboration of a TT; and
- **Strength** is concerned with the degree to which an observation of a TT is correlated by the reviewers, and is calculated based upon the number of occasions (2, 3 or 4) it is observed.

Percentage is concerned with the number of corroborated observations, not the strength of those observations; if a TT is observed (by two or more reviewers) three times across the seven cases then that would equate to a 43% observation.
**Strength** is concerned with the degree to which an observation is correlated. Strength indication is based upon the number of times (2, 3 or 4) a TT is observed.

In a single Case Study a minimum corroboration of a TT is two separate reviewer observations, which is deemed an low-strength corroboration; three reviewer observations is a medium-strength observation and four reviewer observations is a high-strength observation. When looking horizontally across the cases, an arithmetic Mean is used to calculate the Strength for the TT across the cases.

The Using a single indication as an example, a 4 would equate to 100% and therefore gain a green rating; a 3 would equate to 75% and therefore gain an amber rating and a 2 would equate to 50% and therefore gain a red rating. A Strength collaboration is described where <60% strength will be allocated Red; 60% - 80% Amber and >80% Green. Figure 5-1 and 5-2 in Chapter 5 captures the strength and percentage corroboration of each TT and associated Keyword.

\[
\hat{N} = \frac{\sum \text{corroborated observations}}{\sum \text{potential observations}} \times 100 \%
\]

\[
\therefore \hat{N} = \frac{3}{7} \times 100 \% \quad \hat{N} = 43\%
\]

Algorithm 2-5: Generation of Percentage \(\hat{N}\). Source: Author.

These algorithms are applied in the context of the individual TTs in Table 2-7 and as Keyword Groups in Table 2-8. As it is the same data viewed slightly differently, the vertical Percentage and Strength figures for the Case Studies are the same.
### Table 2-7: Codification Theoretical Themes, versus Research Case Studies (Table 5-2, p. 114). Source: Author.

<table>
<thead>
<tr>
<th>Theoretical Theme</th>
<th>Case Study Organisation (Reviewer Observation)</th>
<th>Corroborated</th>
</tr>
</thead>
<tbody>
<tr>
<td>7  Organisations do not always understand the full context of the supply chain.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9  Organisations do not always understand who their suppliers are and their context to customer delivery.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 A high proportion of the controls used by business areas are not owned by those business areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Vision and mission are rarely described in the terms of what we are to be undertaking in the near future, the description of a working mission or purpose.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Mission and Visions are articulated but are rarely detail, what it will mean when implemented.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| TTs Observed by a Single Reviewer | 8 | 7 | 7 | 4 | 5 | 12 | 4 |
| TTs Observed by Two Reviewers | 7 | 8 | 3 | 11 | 4 | 5 | 5 |
| TTs Observed by Three Reviewers | 2 | 1 | 5 | 4 | 0 | 0 | 10 |
| TTs Observed by Four Reviewers | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Total of the 23 TTs Observed | 17 | 16 | 17 | 19 | 10 | 17 | 22 |

| Corroboration Strength (Å) | 20 | 56 | 19 | 53 | 31 | 56 | 66 |
| % Corroboration (N) | 39% | 39% | 35% | 65% | 22% | 22% | 78% |

Table 2-8: Keyword Categorisation, versus Research Case Studies (Figure 5-1, p.113). Source: Author.

<table>
<thead>
<tr>
<th>Keyword (DaCfA Model Theme)</th>
<th>Case Study (Organisation)</th>
<th>Corroborated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>(1,5,15,16) (inc. Mission/Vision and Communications)</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Customer Requirements</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(7,9,13,14,23) (concerning the Supply chain)</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Controls</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2,3,10,20) (inc. Risk)</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Measurement</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Key Word Corroboration Strength (Å)</td>
<td>56</td>
<td>53</td>
</tr>
<tr>
<td>Key Word % Corroboration (N)</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>TT Observations</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Corroborated</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Total TT Observed</td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

Table 2-7 and Table 2-8 captures the output of the theme analysis and are used as an easy reference guide in Chapter 6 as evidence towards the claim for RO4.

4 The listed TTs (7, 9, 10, 15 and 16) are referenced as examples for illustration. Table 5-2, p. 114, contains all 23 TTs.
Cross-case Matrix

A Cross-case Matrix Table 2-9, p. 50, was developed to assist in the identification of TTs that may be visible within certain sizes and shapes of organisations. The Cross-case Matrix utilised the continua from the OC Profile Tool (pp. 18-19) with additionally information on how the workshops were undertaken, that is the size of the workshops; the facilitation style (the Researcher or an independent) and the time period over which the case study ran.

The matrix provided for a 12-point review, and depending upon where a case study had self-assessed against the OC Profile Tool the comparison of two groupings and three groupings see Table 2-9, p. 80. The Cross-case Matrix consisted of the OC Profile Continua:

- Service Type (3 case review groups);
- Customer Facing (3 case review groups);
- Customer Interaction (2 case review groups);
- Product Type (2 case review groups);
- Departmental Size (2 case review groups);
- Customer Base (3 case review groups);
- Service Culture (2 case review groups);
- Company Perspective (3 case review groups); and
- Business Excellence Rating (2 case review groups).

And in addition the Workshop style utilised:

- Group Size (2 case review groups);
- Facilitation (2 case review groups) *not tested; and*
- Time Based, Elapsed Period (2 case review groups).

The self-assessment of the Case Study organisations and the method of workshop were fed in to the Cross-case Matrix Framework.

The data set utilised by the Cross-case Matrix Framework was the TTs observations generated by reviewer theme analysis of the case study write-ups.

The Cross-case Matrix, Figure 2-9, was constructed to review the TTs in the context of the self-assessment carried out by each of the case studies using the OC Profile Tool, Appendix B. To aid this analysis, a Cross-case Matrix, Table 2-9 was developed to facilitate the multi-dimensional analysis of the seven Case Studies as they sat in context on the OC Profile Tool, as well as factors concerned with Facilitation Style (Group Size and Facilitation) and Time-based (Elapsed Period of workshops).
Each of the Cross-cases was either a two or three-group review context, based upon the organisations’ self-assessments. The Reviewer corroborated observations, as captured into Table 2-7 were transcribed into the template created from the Cross-case Matrix Template at Table 2-9.

Table 2-10 is an extract from the Cross-case Matrix as populated for the Service Type Continuum, Customer Requirements Keyword Grouping. From this extract, it can be seen that the TTs (7, 8, 9, 13, 14 and 23) associated to the Customer Requirements Keyword have been observed in a corroborated context across the three Cross-case Grouping. Therefore, it is concluded on the sample

<table>
<thead>
<tr>
<th>Multi-case Context</th>
<th>Service Type</th>
<th>Customer Facing</th>
<th>Customer Interaction</th>
<th>Product Type</th>
<th>Departmental Size</th>
<th>Customer Base</th>
<th>Service Culture</th>
<th>Company Perspective</th>
<th>Business Excellence Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 2-9: The Cross-case Matrix Source: Author.

<table>
<thead>
<tr>
<th>Facilitation Style Used</th>
<th>Group Size</th>
<th>Facilitation</th>
<th>Time-based</th>
<th>Elapsed Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>Theoretical Themes</th>
<th>Case Study Organisation-Reviewer Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Continuum-Service Type</td>
<td>Group 1 Softer Service Provision</td>
</tr>
<tr>
<td></td>
<td>D F</td>
<td>A G C E</td>
</tr>
<tr>
<td>7</td>
<td>Organisations do not always understand the full context of the supply chain model</td>
<td>3 2 3 2 3 2</td>
</tr>
<tr>
<td>8</td>
<td>Organisations do not clearly understand who their customers are and the differences between them</td>
<td>2 2 3 3 2 2</td>
</tr>
<tr>
<td>9</td>
<td>Organisations do not always understand who their suppliers are and their context to customer delivery</td>
<td>3 2 2 2 2 2</td>
</tr>
<tr>
<td>13</td>
<td>Organisation speak, but do not act with the customer in mind</td>
<td>2 2 2 2 2 2</td>
</tr>
<tr>
<td>14</td>
<td>The power of customer perception is not understood</td>
<td>2 2 2 2 2 2</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>2 2 2 2 2 2</td>
</tr>
</tbody>
</table>

Table 2-10: The Cross-case Extract for Service Type; Customer Requirements Keyword. Source: Author.
taken, that there is no correlation between the observation of the Customer Requirements TTs and the position an organisation sits upon the OC Profile Tool. It is for the assessment of the association of TTs verses the OC Profile of the Organisation that the Cross-case Matrix has been developed and will be utilised in the data analysis phase of the research.

**Step 4D – Conclude on Research Objectives**

This final step in the research framework (Figure 2-11, below) is the culmination of both streams of research into the DaCfA Model and Toolset and the TTs. It is at Chapter 6 that the evidence for the successful delivery of the four research objective is reported.

<table>
<thead>
<tr>
<th>Research Input/Output or Control</th>
<th>Research Method</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inputs</strong></td>
<td>Narrative Review</td>
<td>Primary</td>
</tr>
<tr>
<td>Populated Tables A&amp;B (Appendix G).</td>
<td>Theme Analysis</td>
<td>Qualitative</td>
</tr>
<tr>
<td>Populated Summary Table 5-3.</td>
<td>Qualitative Method</td>
<td>Quantitative</td>
</tr>
<tr>
<td>TT Observations Captured in Tables 5-1 &amp; 5-2.</td>
<td>Mixed Methods</td>
<td>Secondary</td>
</tr>
<tr>
<td>Cross-case Matrix (Appendix J).</td>
<td>Triangulation</td>
<td>Quasi-Quantitative</td>
</tr>
<tr>
<td>Case Study Write-ups.</td>
<td></td>
<td>Quasi-Statistical</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapters 6 &amp; 7 (analysed data).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figures 6-1, 6-2 &amp; 6-4 (DaCfA Toolset).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figure 6-5 (TTs).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Study OC Profiles (Appendix D).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Framed set of Theoretical Themes (Appendix E).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Framework (Appendix K).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2-11: Research Framework Step C – Analysis of TT Findings. Source: Author.
**Triangulation**

Triangulation has also taken place between other data points namely:

- Practical evidence (workshop output and Instrument responses);
- Theoretical framework (literature review and the developed Theoretical Themes); and
- Expert witness (Reviewer Observations).

This form of triangulation aligns to what Cronk & Fitzgerald (2002, p. 16) describe as Meta-triangulation, which is a theory constructing process that utilises both literature and data collected about the 'phenomenon’. The emergent theory, thus grounded, became an input for the action research phase of the research, which culminated in the development of the DaCfA Toolset, a practical aid in the resolution of the theoretically grounded gap.

The research framework employed three forms of triangulation Cronk & Fitzgerald (2002):

- Meta-triangulation discussed previously in the development of the grounded theory;
- Methodological-triangulation, which consisted of the application of various methodologies, including the use of case studies, researcher observation and Instrument Returns; and
- Data-triangulation, the use of various data sources, including case study write-ups, researcher observation and completed DaCfA Toolset Instruments gathered through the application of facilitated workshops.

Up to this part within this chapter the main focus has been on the generation of the data from the research, the next element is to discuss the analysis of that data. Within this research, the focus of data analysis is the comparison of DaCfA Instrument Means. The data analysis was carried out through a developed spreadsheet and conditioning the input cells ensured that only valid responses (1 to 6) could be entered.

Three forms of ‘average’ were initially calculated for each statement, arithmetic mean (total divided by the sum), median (the ‘number’ that appears within the middle range) and mode (the number which occurs the most frequent). Due to the small numbers concerned and identifying that there were only very small variations between the three forms of average, the arithmetic Mean was the method chosen to best suit the data collected.

The initial intention was to focus upon the completed suite of instruments that would arise from the participants in the various workshop activities regarding the DaCfA Toolset. Once the initial instruments were received it was noted that no form of base-line had been established, and it was impossible to understand, for example, if a five from one individual was better than a four given by a different individual. As the instruments were set around a 6-point Likert type Scale the median value
(the point where a negative rating switches to a positive rating) is calculated as the ‘Threshold of Acceptability’ (ToA).

Therefore a rating of 3.50 or above was described as a positive indication and below 3.50 would be described as negative indication from the ToA.

The Arithmetic Mean is utilised for the analysis and comparison of the instruments and the Quasi-statistical (mean of means) is used to normalise the data so that comparisons between instruments could be made. The statement and instrument mean values as well as the Quasi-mean values were captured and collated in Table A within Appendix G.

Analysis was also carried out against the case studies as grouped by their self-assessment against the OC Profile Tool as captured in the Cross-case Matrix Table 2-9, p. 50. The Arithmetical Mean values were calculated as well as percentage differences between mean values as describe below (p. 54) and calculated data is captured in Table B within Appendix G.

A narrative review (Theme Analysis), as described at pp. 43-44, of the comments from the Case Study Participants was also undertaken, this was used to triangulate the written comments with the arithmetic Mean values calculated from the workshop participants instrument feedback - in simple terms does the narrative align to the rating.

**Triangulation of Data Sources**

**Purpose**

Table 2-11 and the triangulation model (Figure 2-12) have been designed to summarise the data at the point where a conclusion is to be made. The data is in the form of Quasi-statistical Mean value, that is a mean of means.

**Constructing the Summary Table and Triangulation Model**

Table 2-11 collates each of the Instrument Mean Values as summarised data (A to C) from which the Quasi-Statistical Mean (D) is calculated. Each data source has a reference from where the original value was generated within the Data Analysis Chapter.

<table>
<thead>
<tr>
<th>Triangulation of Instruments</th>
<th>Rating</th>
<th>Taken from…</th>
</tr>
</thead>
<tbody>
<tr>
<td>DaCFA Instruments</td>
<td>A</td>
<td>Table W, p. X</td>
</tr>
<tr>
<td>Team Leader</td>
<td>B</td>
<td>Table Y, p. Z</td>
</tr>
<tr>
<td>Overall Activity</td>
<td>C</td>
<td>Table Y, p. Z</td>
</tr>
<tr>
<td>Facilitation</td>
<td>E</td>
<td>Table Y, p. Z</td>
</tr>
<tr>
<td>Quasi-statistical Mean</td>
<td>D</td>
<td>Excluding facilitator returns</td>
</tr>
</tbody>
</table>

Table 2-11: Case Study Instrument Triangulation Population of Figure 2-12. Source: Author.
The Triangulation Model (Figure 2-12, below) brings together in a pictorial form the data captured in Table 2-11, p. 53. This form of Triangulation is repeated twice within Chapter 5:

- All Case studies;
- All DaCfA Instruments;
- Three times within Chapter 6;
- Case X view (Cases C and H) to satisfy RO1;
- External to Case X (Case D, E, F and G) to satisfy RO2; and
- Other than the solely internal supply-chain context (Cases D, E, F, G, H) to satisfy RO3.

Figure 2-12: Case Study Instrument Triangulation. Source: Author.

**RESEARCH FRAMEWORK SUMMARY**

The overall Research Framework, Appendix K, links the Research Activity, Research Method, the type of data collected to the Research Objective (RO) and this is shown pictorially in Figure 2-13, which traces the path through which the DaCfA Toolset (upper element) and Theoretical Themes (lower element) were developed and tested.

This research applied a pragmatic realism approach, applying and testing of the DaCfA Model and Toolset in the real world (business context) in real time.

The Research Methodology applied, draws on secondary data in the form of the Literature Review, as well as the primary data (of a quantitative as well as a qualitative nature) gathered from the workshop environment in the form of case study write-ups and DaCfA Toolset Instrument returns.

The development of the DaCfA Model and Toolset as well as the Theoretical Themes built on the grounded theory from the Pilot activity within the Case X environment (references as Case Xa).
The analysis of the DaCFA Toolset data was presented in a statistical and quasi-statistical format whereas that presented regarding the Theoretical Themes was of a quasi-quantitative format.

Figure 2.13: The Research Framework (Pictorial). Source: Author.
CHAPTER SUMMARY
This chapter has discussed a number of research approaches and methodologies, and has articulated the advantages and disadvantages associated with each.

A Research Framework (Figures 2-13 and Appendix K) have set a number of these methods (qualitative, quantitative and quasi-quantitative by their nature) in the context of the various research paths articulated for the development and testing of the DaCfA Toolset and Theoretical Themes.

As the DaCfA Toolset and Model were tested in the field, the Case Study protocol was utilised to ensure a consistent workshop methodology was applied. Case study write-ups and DaCfA Toolset Instrument survey data collection became the prime data source of the research, followed by narrative and theme analysis. Through the mixed methods approach it is argued that the Research Aim and Objectives were delivered, leading to a contribution in knowledge.
Chapter 3

Literature Review

INTRODUCTION
The purpose of the Literature Review is three-fold: firstly to develop an understanding of the subject matter available; secondly to help develop a theoretical framework to underpin the research and the research method and lastly, to form one strand of triangulation to validate the research conclusions.

It will be discovered that the emphasis within the academic literature reviewed is focused around setting strategy or developing a mission; in reality, the practical aspects of measuring achievement appear not to have the same focus. The findings of this research, as described in Chapters 5 and 6, mirror this ratio within the literature, e.g. setting strategy and measuring its implementation. However, to fully understand the principles behind the DaCfA model and tool-set, it is essential to understand the concepts and arguments concerned with the fundamental building blocks of the DaCfA Toolset and Model. Such topics include, but are not limited to, “customer interaction”, “customer relationship management”; “service quality”; and “supply-chain”. Therefore to address the relevant literature, the review has been constructed around the four main themes of the DaCfA Model (see Figure 4-2, Chapter 4, p. 97):

• Purpose;
• Controls;
• Customer Requirements ; and
• Measurement.

PURPOSE
Mission, Vision, Strategy and Leadership
The Mission and Vision of an organisation must have an intrinsic link to the strategy and leadership commitment of the organisation for it to be successful (TT6); Abelman (2012, p. 86) describes the institutional vision as the means by which an organisation’s character and world view are identified.

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5 The other two strands of the process being the original CASE X baseline (the concepts and development of the Developing a Customer-focused Approach (DaCfA) model and tool-set within the CASE X environment) and the validation field work (facilitation of the model and tool-set taken outside of CASE X).

6 Ableman’s research was placed within the higher educational context, e.g. college and/or university.
and communicated to the outside communities. In these declarations of purpose, the organisation's aspirations are recognised, commitment is established and expectations are reinforced. Abelman (2012, p. 86) continues that a clear and distinct mission helps distinguish between activities that conform to organisational imperatives and those that do not (TT6). Camelia & Marius (2013, p. 653) argue that missions represent the foundation upon which organisations build their strategic plans, and that they should be the first step any organisation takes before designing its strategy (TT15). Mission statements have also been linked to organisations' performance, and to the successful implementation of their strategies. An effective mission statement, for Camelia & Marius (2013, p. 655) citing Sidhu (2003), is the means by which an organisation can communicate its philosophy, and the core competencies that will help achieve its purpose (TT15). Camelia & Marius (2013) citing Woodrow (2006: 316) suggest that an effective mission statement “should describe an organisation’s reason for existence by highlighting its priorities in a capacity that motivates all organisational constituents to embrace it and live it”. The DaCfA Purpose Template should assist organisations, large or small, to articulate the key attributes of their mission or vision and facilitate appropriate measures for them.

Too often a mission or vision is *wordsmithed*, or a strategy launched or leadership commitment pledged, without someone within the organisation ensuring the correlation and line-of-sight from the objectives of the ‘operative’ through to clear strategic intent to the organisation’s mission and vision of the future state. Abelman (2012, p. 87) draws on the research of Abelman & Dalessandro (2009) who found that mission and vision statements do little to effectively articulate a unification amongst the community of students, faculty, and staff, or coordinate their vision of the institution with that of the administration. (TT16, TT2 and TT3) This supports the work by Morphew & Hartley (2006), as described by Abelman (2012, p. 86), that the mission and vision statements have become ubiquitous (particularly in higher education) with strategic planning and student support services. Abelman (2012, p. 88) continues that mission statements do have the ability if used correctly, to inspire and motivate those within an institution. Abelman (2012, p. 89) continues that mission and vision statements should not be treated as “cool” sentences to adorn the web sites and brochures of universities, they should be put into action. (TT6, TT16, TT2 and TT3).

Camelia & Marius (2013, p. 660) acknowledge that different aspects of the environment, both internal, and external, can have a powerful influence over the formulation and implementation of mission statements. Their research findings (p. 655) indicate that mission statements are believed to be long and complex, becoming too common to indicate what the organisation really wishes to achieve (TT1 and TT5); the language in mission statements in many cases is fairly general or vague (TT1, TT15 and TT16), and is intended to evoke an all-purpose mission making it impossible to tell whether an organisation actually achieves its goals or not (TT19, TT12, TT2 and TT3). Furthermore, Camelia & Marius (2013, p. 656, citing Kuenssberg (2011), articulate that values can represent a set of principles and beliefs that guide the way in which the organisation aims to accomplish its mission;
based on a clear vision and strong values, an organisation can subsequently define its strategic objectives, which integrate the organisation’s growing potential and resources, while seeking to develop a competitive advantage. Camelia & Marius (2013, p. 657) continue that the mission provides a shared sense of purpose, motivating the employees and other internal constituents to communicate the organisation’s values to key external stakeholders. They continue that the process of communicating the mission must be carried out both internally, and externally towards all parties connected or involved with the institution’s activity (TT1 and TT5). Cady, Wheeler, DeWolf & Brodke (2011, p. 69, citing Terdoslavich, (1996, p. 115)) comment that just publishing a mission/vision statement and speaking in visionary terms at communications meetings does not automatically enrol the workforce to accept it, believe it or make it work (TT1). If the mission statement has been properly conceived, the organisation should always find in it a clear direction for future times (TT15). A well-designed mission statement can significantly differentiate the organisation from its competitors (TT16), and will lead to the optimisation of the resources used in customer satisfaction (TT14 and TT23), Camelia & Marius (2013, p. 655). Cady et al (2011, p. 70) conclude that a company’s response indicating that it does not have a “mission statement” does not necessarily mean that it has no formalised organisational statements or clear directional aspirations. The Purpose Template of the DaCfA Model and Toolset, is designed to assist an organisation without a formal mission or vision statement to consider, its purpose, the key attributes of its purpose and how the effectiveness of those attributes can be measured. Organisations with existing missions/visions can utilise the Purpose Template to re-visit them, to validate their continued appropriateness and to verify their implementation via the measurement aspect of the template.

Cady et al (2011, p. 63) stress that if organisations want to maximise productivity and ensure that they are doing the “right” work, they must provide organisational members with a clear understanding of: who they are; where they are going and how they are going to get there (TT8). Within the context of this research and the DaCfA Model and Toolset, this is a the description of the organisation’s Purpose Statement, which, once articulated, can be described in terms of attributes which can be measured for achievement. This research will demonstrate that although organisations describe their Purpose in the form of a Mission or Vision, they rarely set a clear plan as to how the purpose will be achieved nor describe the measures that will be utilised to confirm mission/vision achievement of the organisation (TT2, TT3 TT6, TT15 and TT16).

There is a significant difference between planning and strategic planning. Planning involves a list of actions that will, hopefully, result in a desirable outcome (TT2 and TT3). Strategic planning involves creating a very clear and specific vision of the Company relative to some period of time, usually three to five years. That vision is compared to the Company’s current position and the “strategy” entails the actions that must occur to get from point A to point B (TT15), Wesemann (2012, p. 15). According to Özdem (2012, p. 1889) citing Yüksel (2002), the concept of strategic planning is defined as an instrument that allows the development of long-term plans considering the risks (TT20) and the
opportunities faced by the organisation, and by acting in line with those plans to improve efficiency. Strategic planning requires the identification of the aims and objectives of an organization, and the methods to reach these aims and objectives (*TT15 and TT16*). Özdem (2012, p. 1889), citing Aktan, 2003, strategic planning consists of the four components (*TT15 and TT16*) of:

- Vision;
- Mission;
- Strategy; and
- Action.

Özdem (2012) continues that one of the most important steps in strategic planning is the formulation of mission and vision statements. The mission and vision statements guide all activities of organisations and businesses. Thus, these decisions need require careful consideration so that they can contribute to the planning and implementation of other activities of the organisation (*TT16*).

The success of the strategic plan depends on the correct formulation of mission and vision statements, and wide participation in their formulation, Özdem (2012, p. 1890). Peelen, van Montfort, Beltman & Klerkx (2009, p.455) describe a strong correlation between Vision and Strategy and argue that, to achieve success in Customer Relationship Management, organisations should focus on Vision and Strategy; Information and Processes (usually discharged through process owners (*TT10*); Client Orientation; valued Customer Experience and Metrics (*TT18*). Total Customer Satisfaction (TCS), according to Kearney (1994, p. 6), is the sum of every relationship an organisation has with every customer; not only with the product but also with the services provided with it. Kearney (1994, p. 6) continues that TCS means managing the business to satisfy customers not ‘management’. Traditional business practices must be questioned and more customer-oriented policies prevail (*TT7, TT9 and TT13*). In most cases there will need to be a change in strategic direction. The DaCfA Toolset, with a particular focus on the Customer and Supplier Matrices, assists organisations and business units to identify, and understand the context of the service or product supplied to their various customers. It is possible, particularly in the internal supply-chain model, for a supplier in one context to be a customer in another; the DaCfA Toolset, through the application of these matrices will assist in the understanding of which context a business unit is engaged.

The achievement of an organisation’s objectives requires the development of business and service strategies which include the strategic position the organisation wishes to take in the ‘market place’ (*TT6*) (Oakland, 1998, p. 33). Harrington & Kendall (2006, p. 208) define strategy implementation as the process used to implement specific organisational policies, programmes and action plans across the organisation (*TT4*). Strategic management, according to Shah (2005, p. 293), deals with all that affects the ability of the organisation to grow; organisational effectiveness depends on the agility of the organisation to adapt to its environment. Strategy formulation should be concerned with the future direction of the organisation whilst strategy implementation is the process of translating the strategy...
into a set of actions (TT2, TT3, TT6, TT15 and TT16). Furthermore, Harrington & Kendall (2006, pp. 211-213) articulate that there is a correlation between the size of the organisation and the extent of involvement in the strategy-setting process; the larger the organisation, the more complex the development process might be; conversely in smaller organisations, the strategic processes may consist of no more than the owner’s thoughts. There is evidence, Oakland (1998, p. 33) supported by Harrington (2005), that the more the strategy is socialised during its development the smoother the implementation path will be (TT1 and TT5). The application of the DaCfA Toolset should assist organisations in describing their purpose in a set of articulated attributes with related measures of success. The identification of customer deliverables, in the form of service or product provision will also assist in the articulation of the Purpose of the organisation in the context of what has to be delivered as a means of achieving the set mission/vision (purpose).

For strategy implementation to be effective, leaders must pay as much attention to planning the implementation as they do to the formulation of the strategies themselves (TT16) (Shah, 2005, p. 293). Candido (2005, p. 4) believed that there is a lack of clear, detailed and general strategy implementation models that can clearly assist organisations in strategy implementation (TT6). One of the six critical success factors identified by Shah (2005, p. 298) for strategy implementation, is Employee Understanding and Commitment, which can be obtained through the application of the DaCfA Toolset within teams.

Jabnoun & Rasasi (2005, p. 70), citing Krantz (1989), Deming (1986), and Juran (1989), comment that the role of leadership in the success of quality initiatives has been well documented. However, research into the leadership styles to support those initiatives has been sparse. Jabnoun & Rasasi (2005, p. 72) argue that what is required is transformational leadership (citing Burns (1979)), which is the process through which radical change is brought about, particularly in behaviour, through increased confidence as an individual and within a group (TT5). Jabnoun & Rasasi (2005, p. 74) continue that although there is much literature about transformational leadership, there is little concerned with leadership styles and service quality. Murphy (2005, p. 29) argues that Service excellence requires a total approach, from the right strategic focus to a clear understanding of the service, involving suitable, well-trained people working with sound systems and processes. Murphy continues that the realisation of excellence is a vital leadership quality, and far too often in business there are leaders who create high levels of employee commitment, the excellent leader, Murphy adds, motivates employees to perform at a much higher level, leading to enhanced customer loyalty and profitability. Chipunza (2008, p. 141) describes loyalty (employee or customer) in any organisation as genuinely loyal (having a positive attitude towards the organisation) or partially loyal (having a negative attitude towards the organisation), which is a result of situational factors such as cost, habit

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8 Other success criteria identified by Shah (2005) are: Sound Strategy; Sufficient Resources; Management Commitment and Leadership; Financial Rewards and Information Systems.
9 It is essential that top managers convincingly communicate the strategy in an effective manner so that employees of the organisation understand what that are required to do; it is essential to identify the factors that motivate employees in order to gain their commitment to successful implementation.
or location. The true value of partially loyal customers is less certain because of the propensity to change should the situational factors alter (TT7). The DaCfA Toolset is designed to assist organisations and business units in the identification of their customers, the services they provide to them and how they will measure the extent of service delivery.

Through the creation of an effective Mission Statement an organisation communicates its philosophy and its reason for being, Camelia & Marius (2013, p. 655, citing Sidhu 2003). Barnes, Fox & Morris (2004) argue that if the strategy is not effectively communicated to employees, it is possible that the employees will have a disjointed vision of the organisation and as a result they will not able collectively to visualise any strategic direction (TT1, TT6, TT2 and TT3).

The term ‘leadership’ has been described in many different ways. Ardichvilli & Manderscheid (2007, p. 620) offer the description of Northouse (2007) that leadership is “a process whereby an individual influences a group of individuals to achieve a common goal”. They describe the components of leadership as: leadership is a process; it involves influence; it occurs within a group context; it involves goal attainment (TT5). The ideal is that everyone is a leader, i.e. a concept of distributed or shared leadership, which is exercised throughout an organisation. In this context, leadership is not the sole domain of the Executive Board; it is a departure from the top-down leadership approach. It is seen, not as a set of personal attributes or styles, but rather as a practice enhanced by people at many levels (James, Mann & Creasy, 2007, pp. 80-82); the role of a top leader within the distributed leadership framework is important, the focus must be towards the external customer and setting the strategic intent of the organisation (TT5), without which the reason for an organisations existence will be lost and the business will end up doing ‘stuff’ for the sake of doing ‘stuff’, they will start by getting the right people with the right mind-set, Kodish (2006) articulates the Collins (2001) Level 5 Leader traits, who build a great and enduring company. They start by getting the right people in the right places and the wrong people out.

**Mission, Vision, Strategy and Leadership - Summary**

This section has identified the fundamental principles concerning ‘why’ an organisation would establish a Mission or Vision statement the ‘what’, the importance that should be placed upon those ‘statements’ in aiding the communication of the strategic direction through the development of strategic plans the ‘how’ of those organisations together with the part leadership plays in the successful articulation of the ‘what into the how’.

Furthermore this section has identified a number of themes around: communication (leading to TT1, TT14); leadership direction (leading to TT5); the articulation of Mission/Vision statements and strategic plans (leading to TT6, TT15, TT20); the implementation of Mission/Visions through strategic plans (leading to TT2, TT3, TT10, TT16); the verification of Mission/Visions through the
setting of appropriate measures (leading to TT4, TT12, TT19). The translation of the voice of the customer into Mission/Vision/Strategy (leading to TT7, TT8, TT9, TT13, TT18, TT23).

As a toolset to aid communications, the DaCfA Toolset sets the Mission or Vision of an organisation in the context of a Purpose Statement; it ensures that the purpose is described via a series of Attributes, the ‘what’ that will be delivered/achieved once the purpose is implemented. Through the DaCfA Methodology, these attributes are assigned appropriate measures, which will be the means through which delivery of the purpose can be verified.

**Public -v- Private Organisational Context**

The literature review has previously covered the Mission/Vision and Strategy Methodologies within an organisation or business unit; this section considers those characteristics through the context of the differences between public and private sector organisations. Reilly (2013, p. 523) articulates that historically, there has been a trade-off for working in the public sector; the promise of job security and solid health and retirement plans in compensation for forgoing the higher wages available in the private sector. Differences manifest themselves in other areas such as how funding is generated; the concept of profit and the hierarchical organisational structures that might be in place. Kay & Goldspink (2013, p. 17) identify that adopting private sector innovation approaches within the public sector leads to increased innovation failures and a reduced desire to innovate on the part of the public sector, this is due to the drivers and benefits of innovation are vastly different in the public sector compared to those in the private, for instance it would currently be unthinkable for a public sector service provider to be making fast profits from its tax payers, where in the private sector a sound profit making business would receive accolades. It was therefore a hypothesis of the Researcher that organisations from the public or private sectors would deal with customer/supplier relationships in different ways. Case X sits in a unique position of straddling the line between the private and public sector. It is a GO-CO (Government Owned - Contracted Out) organisation; where the infrastructure and workforce are preserved by the government, but the day-to-day management and profit generation is the responsibility of a contracting private sector organisation.

Vigoda-Gadot & Kapun (2004, p. 260) citing Murray (1975) described five main differences between the profit goals of the Private organisation and the service goals of the Public sector:

- Criteria for the goal realisation;
- The degree of activity and values level;
- Law;
- Exposure and auditing; and
- Dependence upon the system.

These differences, when examined in detail, appear to be somewhat outdated and the boundary between the private and public organisational context is not as clear now as it appeared to be in the
1970s. Of these however, item 4, concerned with the risk exposure and auditing is relevant and more organisations are turning to mitigation of risk exposure (TT20) and the adoption of fiscal forms of audit at the highest level (Vigoda-Gadot & Kapun, 2004, p. 260).

The DaCfA Toolset has been developed and tested within Case X, and it was essential to the robustness of this research that the DaCfA Toolset was tested within a different type of organisation, thus the Private/Public Continuum was defined within the Organisational Continuum Profile Tool (Appendix B).

In simple terms the difference between the Public and the Private sector is that there are no ‘shares’ within the Public sector and organisations are not normally there to make a profit. However, public organisations and institutions most certainly need to show value for money. Proctor & Doukakis (2003, p. 269) note that, unlike the private sector, there are no Annual General Meetings to attend and as a consequence it is difficult for the public to directly indicate their satisfaction or dissatisfaction with a service or the management team providing that service (TT8). In the private sector, shareholders can express their support or dismay through the ballot box. Proctor & Doukakis continue, that to some extent managers within the public arena can have scope for greater managerial discretionary behaviour and are able to pursue their ‘own’ goals rather than concentrate on maximising profitability, whilst acknowledging that public spending, compared to that within a private organisation, is subject to very close scrutiny (TT4). The DaCfA Toolset assists an organisation by highlighting the organisation’s Purpose and any associated risks, enabling key attributes within that purpose to be described to allow for the setting of appropriate measures.

Curry & Herbert (1998, p. 339) argue that if service quality is the cornerstone of an organisation’s strategy, then there must be a means of measuring it (TT13) which they explain can be met in a number of ways: by satisfying customer requirements (TT7, TT13 and TT23); designing products or services that meet those requirements through processes that analyse the transactional activities that interface with the user. Citing Ovretveit (1991), they continue that there are three categories of quality to be taken into account within Public service organisations:

- Client quality – relates to what the customer requires from the service;
- Professional quality – deployment of appropriate processes and techniques to meet consumer requirements; and
- Management quality – effective and productive use of resources to meet consumer requirements.

Although, these aspects also have relevance for private sector organisations.
Curry & Herbert try to distinguish the context of quality within the Public context, neither Gagliano & Hathcote (1994) nor Parasuraman, Zeithaml, & Berry (1985 & 1988) contextualise regarding the Public or Private Sectors within their categorisations. However, there is a correlation between Ovreteit (1991), Gagliano & Hathcote (1994) and Parasuraman et al. (1985 & 1988) in relation to the factors of service quality. Gagliano & Hathcote (1994) introduced two forms of service quality - Technical quality – focused on what consumers actually receive; and Functional quality – focused on the process of service delivery. Dack & Reed (2007) showed through their research that covered both the Public and Private Sector that the dimensions of quality are transferable to any sector. Therefore if the dimensions of quality are transferable then it follows that method of data capture, e.g. the DaCfA Toolset, should be transferable across the various sectors.

The DaCfA Toolset, through the application of the Customer Matrix, Supplier Matrix and Relationship Matrix artefacts, assists organisations to understand the context of their relationship with specific customers or suppliers; the services delivered to their customers or received from their suppliers and the interaction of such services. The method of control (process, procedure, SLA, Contract or Charter) over that service is also captured by the Toolset and the effectiveness of the control is also measured. Therefore, through the Toolset these various contexts, Client Quality, Professional Quality, Technical and Functional Quality as well as the Dimensions of Service Quality are addressed.

A key theme for Curry & Herbert (1998, p. 339) is the establishment of performance indicators to judge the achievement of strategic objectives (TT16 and TT17). These objectives should encourage innovation and maintain improvement as well as ensuring the financial viability of the organisation. The corresponding indicators shall address both the systematic issues (hard indicators) as well as the interpersonal aspects (soft indicators) within the organisation (TT18 and TT22). They conclude by recommending the use of certification schemes, such as ISO:9000, to improve the consistency of performance, although a more rounded approach might be that of the Business Excellence (BE) Model that views the business in an holistic and systematic perspective, as places an emphases on designing and establishing the right processes to deliver the desired business results. The DaCfA Toolset artefacts have been designed to articulate, across the various matrices and templates, how specific attributes can be measured, these are converged onto the Measurement Template where an overall assessment of the suite of measures employed by the organisation can be undertaken, assisting organisations to make a value judgement on the construct of the suite of measures employed: are there too many measures, or too few? What is the balance of hard, soft, leading, lagging measures?

Donnelly, Kerr, Rimmer & Shiu (2007, p. 95) articulate the difficulties that the public service sector has in assessing quality due to the nature of the customer/stakeholder (geographical as well as demographic) and the complexity of the environments in which they exist. Donnelly et al. (2007, p. 96) continue that another difference between the Private and Public sector is that while the private
sector may choose to analyse its external environment, the public sector may be required to do so by statute and therefore have no option. Donnelly, Wisniewski, Dalrymple & Curry (1996, p. 15) articulate that Public sector organisations face difficulties regarding their efforts to improve consumer service compared to those within the Private sector. They articulate that Private sector organisations find it easier to identify their customers as they are the ‘people’ prepared to pay the prevailing market price for the service/product in question (TT8). This Researcher would disagree with that statement as, through this research, similar difficulties of customer and service provider identification were seen within both sectors. The prime reason why the Customer, Supplier and Relationship matrices were developed was to assist organisations and business areas in the identification of their customer, suppliers or stakeholders and the services they receive/provide (TT7 and TT14). This was prevalent with Case X (within the in Case Xa timeline) where business units struggled to articulate their supply-chain (TT7) which eventually led to a structured development to the DaCfA Toolset, with the Customer Matrix being the first artefact to be developed.

**Public -v- Private Organisational Context - Summary**

The narrative coming from literature regarding the Public/Private context is that there are differences on how the businesses operate, and the environment in which they operate. However these differences have fundamentally reduced in the past 30 years, and within the context of quality, it is difficult to envisage what differences remain.

The focus within this field of research identifies similar themes to those uncovered when addressing Mission/Vision and Strategy, these themes are: the contextual setting of supply-chain identification (leading to TT 7, TT8, TT13); Risk Exposure (leading to TT20); construct of appropriate measures (leading to TT16, TT17, TT22); the description of Service Quality (leading to TT4, TT14, TT18, TT23).

The DaCfA Model and Toolset has the potential to assist organisations in the description of service delivery. The matrices and templates identified under this section are the Purpose Template, the Customer, Supplier and Relationship matrices, and the Risk Mitigation and Measurement Templates.

**Departmental Purpose Analysis**

Vorley (1991) describes Departmental Purpose Analysis (DPA) as a means to understand clearly the relationships between a service provider’s department and those of its suppliers and the user/customer departments. This analysis can extend all the way down to individuals and ensures that the department’s objectives and plans and the inter-relationship between internal customers and suppliers are clearly understood at all levels. It is aimed at answering three main questions:

1. Are we doing the right tasks?
2. Are we doing tasks right?
3. Can we do the right tasks better?
O’Brien & Irving (1996, p. 37) confirmed that DPA is based on the premise that all departments take inputs, process these inputs, and provide their customers with a product or service; the ‘tasks’ performed by the service provider are identified and prioritised. These are then compared to the purpose of the department. Having established that the right tasks are being performed it is then necessary to compare these practices to the customer requirements. Once it has been established that the tasks are being carried out correctly, then the tasks can be reviewed to establish if they can be improved.

The first requirement of applying the Customer-Supplier Matrix is to establish the purpose of the service provider’s department, that is identifying the attributes of that service provision. These attributes can then be reviewed against the list of services provided and captured in the Customer Matrix Template of the DaCfA Toolset.

The principle of customer-supplier management is the recognition that everyone is involved in the supply chain (TT7). It would be very rare to find a department or group within an organisation that does not have either a customer or a supplier. Oakland (1998, p. 6) describes the ability for an organisation to meet customer requirements through quality chains as vital. Each customer-supplier relationship both internal and external is seen as a separate link in the quality chain, and any one of those links can become fractured if the customer requirements become misunderstood or wrongly translated. Oakland (1998) prescribes training in customer-supplier relationships as an essential component to good customer-supplier management. To understand fully the customer-supplier relationship, Oakland (1998, p. 10) proposes the following question set:

To understand the customer:
1. Who are my immediate customers?
2. What are their true requirements?
3. How do I find out what the requirements are?
4. How can I measure my ability to meet the requirements?
5. Do I have the necessary capability to meet the requirements?
6. Do I continue to meet the requirements?
7. How do I monitor changes in requirements?

To understand the supplier:
8. Who are my immediate suppliers?
9. What are my true requirements?
10. How do I communicate my requirements?
11. Do my suppliers have the capability to measure and meet the requirements?
12. How do I inform them of changes to the requirements?
Dale (2003, p. 10.) describes the crux of Total Quality Management (TQM) is satisfying customers and creating customer enthusiasm through understanding their needs and future requirements; the mutual co-operation of everyone to produce value for money products (Dale, van der Wiele, & van Iwaarden, 2007, p. 4). Dale, Lascelles & Lloyd (2007, pp. 111-126) describe how the traditional adversarial customer-supplier relationship of a “win-lose” contest is being replaced with the adult-adult relationship of a “win-win” and the description of six different levels of TQM adoption from Level 1, Uncommitted, with a reluctance to gain managements system certification such as ISO9001, through to Level 6, World-class, with the concept of total integration of continuous improvement and business strategy. They continue that World-class status is often attainable for only a few years if they become complacent. Furthermore, TQM is a strategy for change in an environment where the accepted paradigms are subject to constant challenge and change.

The concept of the supply chain is a key component of the Customer-Supplier Matrix. Fields within the Customer Matrix, (Chapter 4, p. 102) in the Vertical aspect addresses: who are the customers; how important are they to the organisation; what services are delivered to the customer; what agreements are in place to meet the aspects of service delivery and what risks have been identified associated with the agreements established with the customers. In the Horizontal aspect: what are the services delivered to which customers; how important are these services perceived to be to the customers; how is the performance of the service measured; how is the delivery of the service controlled and what if any risks are there associated with the service delivery. The Customer Matrix therefore addresses items 1, 2, 4, 6, and 7 of Oakland’s questions.

The Supplier Matrix, (Chapter 4, p. 103) also addresses the areas described above in the form of specific fields in the Vertical aspect the Supplier Matrix: who are the suppliers; how important are they to the organisation; what services are delivered to the organisation; what agreements are in place to meet the aspects of service delivery and what risks have been identified associated with the agreements established with the suppliers. In the Horizontal aspect: what are the services delivered to the organisation; how important are those services to the organisation; how is the performance of the service measured; how is the delivery of the service controlled and what, if any risks, are there associated with the service delivery. The Supplier Matrix therefore addresses items 8, 9, 10, 11 and 12 of Oakland’s questions above.

The Relationship Matrix captures in the Horizontal aspect, the services delivered to the customer and their perceived associated importance together with in the vertical aspect, the services received by the organisation and the importance of that services. The matrix is then completed by identifying what received service is required to deliver a particular service to the customer. The Relationship Matrix therefore addresses item 5 of the Oakland’s questions above.
Communication

Ineffective communications are being blamed by many a workforce for numerous failings within the management arena. Burtic (2013, p. 191) comments that communication is one of the main characteristics of human beings and he continues that all relationships between people involve a communication link, which can cover a huge diversity of forms and patterns. Pentland (2012, p. 62) comments that “it seems almost absurd that how we communicate could be so much more important than what we communicate”. Godfrey, Seiders & Voss (2011, p. 94) argue that some communications are better than none.

According to the Oxford Dictionary and Thesaurus (2001), communications “is the action of sending and/or receiving information”; effective communications has the value-adding element of the receiver understanding the ‘information’ as it was intended by the sender. Consequently the effectiveness of the process decreases as the distance between sender and receiver increases (Gould (n.d.) and as the feedback mechanisms to evaluate that the information sent has been received as it was intended becomes more difficult to measure and evaluate. The consistency of information and messages also decrease proportionally as the size of the audience increases, i.e. it is easier in a one-to-one situation to ascertain that the receiver has understood the message, asking them directly and testing their response; this becomes more arduous as numbers increase.

Organisations also face issues where communications are perceived by the masses to be deliberately slow, in such cases the “rumour mill” kicks into action and fiction replaces fact (TTI). Dubois, Rucker & Tormala (2011) describe a rumour as belief or piece of information that is typically associated with high uncertainty and is transmitted rapidly amongst teams. Rumours can be positive as well as negative in nature. Dubois et al. (2011) continue that, although organisations would normally try to halt or stop rumours of a negative nature, they have been known to let the positive ones grow, although as a strategy this can be very risky. The rumour mill is a barrier to effective communications within an organisation. The Bonas Machine Company Case Study (Anonymous-1, 1996, p. 7) identified that a set of structured briefings kept a good two-way dialogue: these consisted of daily briefs which concentrated on tactical communications centred around orders received, sales delivered; weekly briefings including achievements of targets and goals. The verbal briefings were supported by written summaries drawing on the use of multi-channel communications as illustrated by Greenyer (2003) and (Godfrey, Seiders & Voss, 2011).

Communications are not simply the use of the verbal context, but take many formats, such as written, visual, audio, electronic (email, SMS texting) and combinations of the same (Greenyer, 2003).

Golen (1980, citing Brown (1976)), concludes that if barriers to effective communication cannot be avoided they should at least be dealt with. Golen (1980) continues that the effective communicator is one who understands the hazards that messages face and does something about them.
Sarker, Ahuja, Sarker and Kirkeby (2011, pp. 283-284) identify communications as a key enabler to trust; and as vital in building trust into any team, but especially critical where a team is of a virtual nature. They continue that trust and communications are separate behaviours, but are synergistic and therefore co-exist within a team. Poor or sporadic communications equate to cynicism towards or untrustworthy status of communicators. Proctor and Doukakis (2003) support this argument, commenting that poor communications is seen as a key driver of negative feeling, consequently individuals believe that the only way they can discover what is happening is from the local newspaper or the rumour mill. They conclude that is a fundamental problem with the quality of people management and upward and downward communications (TT 5), and although in theory the practice of cascade briefing is fine, due to the quality of message translation, in practice it just does not work. Proctor & Doukakis (2003, p. 274) continue that communications is about sharing meaning and providing a means for behavioural change to bridge the gap between the supplier and the customer (supply-chain), that is, within and without the organisation.

Brunner (2008) identifies listening as a key communication tool which is often overlooked. Brunner, citing Halone (2001), argues that listening is one of the most important relational activities that maintain and build relationships. Brunner, citing Gray & Robertson (2005), continues that a good communicator, as well as a good leader and manager, must listen actively and empathetically and pay attention to feedback. Citing Hughes (2002), Brunner comments that a good listener is hard to find in the business world; this therefore leads to organisations often losing out on the benefits, identified by citing Bentley (2000), which can be achieved through the practice of better listening, such as better employee and customer relations. Brunner (2008, p. 81) concludes that “Relationships, communication, and listening are part of our daily existence and we would all benefit from learning how to become effective listeners. He continues that “Listening should be seen as part of the communication process” and that “without listening and communications, trust, satisfaction, commitment and control are not possible”.

Bisel, Amber, Messersmith & Kelley (2012, citing Spitzberg & Cupach (1984)), see communication skill as the ability to strike a balance between effectiveness and appropriateness in a given situation, arguing that conversely communications incompetence arises when communications are neither effective nor appropriate.

Pentland (2012, p. 65) identifies the linkages between the key elements of communication and team performance. These are Energy (described in terms of the number and nature of exchanges amongst team members), Engagement (which reflects the distribution of energy among team members) and Exploration (involves communication that members engage in outside their team).
The use of jargon and acronyms within a team or organisation can be both inclusive and exclusive; in many of the case study workshops (as an example Case A and Case G) the Researcher found a new or hidden language (jargon) in use; Gould (n.d.) describes this as an issue of differences between the message sender and the message receiver and continues that generally people work better when they feel that they are understood and when they understand others. Conversely, Gould (n.d.) argues that prestige leads to understanding, or, that the more prestige a writer or communicator has, the easier it is for them to get their message across and have it accepted. Greenyer (2003, p. 289) articulates that customer communications remains an under-utilised channel; this view is supported by this researcher, whose work at Case X (Dack & Kaye, 2010) identified that communications (utilising the various open channels) was a vital tool in gauging levels of service commitment and the perception of service quality.

Pentland (2012, p. 65) identified a number of characteristics of communication that are synonymous within successful teams:

- Everyone in the team talks and listens in roughly equal measures, keeping contributions short;
- Members face one another, and their conversations and gestures are energetic;
- Members can connect directly with one another, not just the team leader;
- Members carry on back-channel or side conversations with the team; this can be confused with disruptive behaviour but Pentland (2012, p. 65) argues that the data collected supports the theory that the side exchanges contribute to better performance, rather than distract a team; and
- Members periodically break, go exploring outside the team, and bring information back.

Sarkar et al. (2011, p. 285) articulate that higher levels of individuals’ communication correlates to the higher levels of performance, and consequently inadequate or inappropriate communications may hinder the individual; they argue that it is the trust element that may have an effect on the individual, rather than the direct communication itself.

Communications can also play a vital role in the management of perception, rather than just deliver something late, engage with the customer, explain the reasons why, service quality can be simply around managing expectation thus SLAs, Contracts, Charters etc. are key tools in the preservation of effective customer relations and perceived service quality (TT12 and TT13).

**Communication - Summary**

Communications as such is not addressed as part of the DaCfA Model or Toolset. However aspects of poor communication will be uncovered by the application of the various DaCfA artefacts within the case studies that form part of this Research.
Themes associated with communication in both a strategic (leadership) and tactical (grounded) context have been identified leading to TT1 and TT5.

**PURPOSE SUMMARY**

The topics discussed within the Purpose Section show direct associations to a number of the DaCfA Toolset artefacts, in particular the Purpose Template, the Customer, Supplier and Relationship matrices as well as the Risk Mitigation and Measurement Templates.

The Themes discussed have covered various aspects of Mission/Vision development and implementation, communications, supply chain identification and measurement and has led to the threads of the fundamental nature of a number of the developed Theoretical Themes including those associated with the following elements of the DaCfA Model:

- Purpose: TT1, TT5, TT6, TT15 and TT16;
- Customer Requirements: TT7, TT8, TT9, TT13, TT14 and TT23;
- Controls: TT2, TT3, TT10 and TT20; and
- Measurement: TT4, TT12, TT17, TT18, TT19 and TT22.

**CUSTOMER REQUIREMENTS**

**Customer Interaction**

Forseth (2005, p. 441) describes social interaction with a customer as a key feature of service provision, and in the context of close contact provision, such as a bank clerk or help-desk operative, it is sometimes that interaction that ‘makes’ the service and not always the product outcome itself. Yoo, Arnold & Frankwick (2012, p.1315) describe how service providers unable to directly address customer concerns in a pleasant and respectful manner risk customers experiencing interactional injustice. The perceived injustice might prompt customers to seek direction from others currently sharing the service environment to reduce perceived risk in the service encounter. Greenyer (2004, pp. 286-287) provides an insight by stating that in commodity areas, such as banking services; it is the face-to-face interactions that happen between the customer at the services desk or with client managers that help to form well-rounded profiles of customers, which can be translated into opportunities to cross-sell products and services. Henning-Thurau, Groth, Paul & Gremier (2006, p. 58) argue that in general the interaction between service employees and customers is an essential part of the customers’ assessment of service quality and their relationship with the service provider. Greenyer (2004, p. 289) continues that commodity groups such as insurers have fragmented interaction with their customers therefore providing little opportunity to build a detailed customer profile and therefore the inability to generate the opportunity to cross-sell. Forseth (2005, p. 443) refers to the research of Fuller & Smith, (1991) who articulated the concept that customer care and
sovereignty are the key aspects of service competitiveness through such catchphrases as “service with a smile” and “the customer is always right”. Ghose (2002, p. 100) describes this interaction with the customer as the ‘moment-of-truth’. Bechtoldt, Welk, Hartig & Zapf (2007, p. 495) identify that service providers can undergo a heightened risk of negative emotion as they are expected to attend to their customer in a friendly way, no matter how the customer is interacting with them. Diefendorff & Croyle (2008, pp. 315-316) articulate that uncivil customer interaction could lead to an individual actively displaying negative emotions. They expand this by describing that service providers’ emotional displays can have a direct effect upon the money they earn; the broader a waitress’ smile, the greater the potential for a large tip, when compared to the glum-faced waiter. It is not unusual that several customers might be intentionally and simultaneously involved in the service production and delivery process in which other customers are occasionally or accidentally present when individual customers have a service experience, for instance service by a shop assistant or a bank clerk, these occasions might influence of other customers in a service encounter. Moreover, it is possible that the perception of service is different if measured in an individual encounter compared to a multi-customer interaction (Finsterwaldera & Kuppelwieser, 2011, p.609-611).

Diefendorff & Croyle (2008, p. 316) continue by citing the work of Gray & McNaughton (2000) who concluded that when linking reward to behaviour, rewarded behaviours receive more effort and attention. These motivational behaviours will vary dependent upon the customer interaction context and the service/product being provided.

Dunning, Pecotich & O’Cass (2004, p. 553) identify that not all customer interactions are successful, and often customer expectations are not met, resulting in dissatisfaction, leading to complaint and what they identify as redress-seeking behaviour. Homberg & Stock (2010, p. 148) stress that there is a correlation between job satisfaction, customer satisfaction and the frequency of customer interaction. Claycomb & Martin (2001, p. 386) argue that the service provider may be the most tangible aspect of the service in the eyes of the customer and is therefore commensurate with the quality of the service itself. This argument is supported by Schofield and Breen (2004, p. 399) who comment that service quality is determined by both the outcome and the experience of the interaction with the service provider. Henning-Thurau (2004, p. 460) builds upon this point when he comments that as a result of the intangible and interactive nature of services, “customers often rely on the behaviour of service employees when judging the quality of a service” (TT23). Hohenschwert (2012, pp.154-155) articulates that there are many examples where the salesperson tries to make the customer's life easier in ways that are not necessarily considered part of their job, or at least not expected from them and that go beyond typical work responsibilities and take on extra work in order to differentiate the service provided. Flexibility seems to have become more important to the quality of service since the customer needs to be able to react more flexibly to their own customers and changes in the environment or market.
Blind (2006, p. 401) explains that many services depend upon communication, information and transportation networks. Ghose (2002, p. 98) argues that it is the human resource, and consequently their interaction with the customer, who is key to the success of the production and innovation of those services. He continues that the quality of the service critically depends upon the willingness of the consumer to co-operate with the service provider through two-way Customer/Supplier interaction; customers expect to be heard and as a consequence have greater service expectations (TT23).

Organisations, and particularly business areas providing a service to a mainly internal clientele, very rarely have ‘agreements’ in place such as SLAs or more generic customer charters that detail the level of service that a customer should expect to receive, those that do, have little or no measure in place to monitor effectiveness (TT12). According to Dunning, Pecotich, & O’Cass (2004, p. 554-557) this leads to an unsatisfactory situation of damaged outcome, which gives the customer two choices, do nothing or complain and seek redress. This situation is difficult to achieve if standards have still not been set, e.g. the customer charter (TT12).

Customer Interaction, is a key element of service jobs and consequently personal characteristics become an integral part of that service. This leads to the concept that the more social contact that a service group or organisation has with its customers, the better it understands those customer groups and their needs, Forseth (2005, p. 441).

From undertaking customer interaction, understanding their requirements (TT8) and listening to their feedback, an organisation can try to get a realistic interpretation of the voice-of-the-customer. This is supported by Harmancioglu, McNally, Clantone & Durmusoglu (2007, p. 418) who, in the context of New Product Development, stated that customer input and feedback signifies the degree to which the voice-of-the-customer and not the voice of the sales function (for example) is integrated into the process. Too often organisations believe that they are acting upon the requirements or feedback of the customer when it is actually the perception of internal departments within the supply-chain process that delivers to the customer (TT7). Harmancioglu et al. (2007, p. 415) state that, despite the close relationship with the customer, ideas for new products are normally generated by the sales or marketing departments but, they argue, the concept of true customer integration, i.e. ideas from the customer, may reduce not only development costs, but also time-to-market. Campbell, DeBeer, Barnard, Booysen, Truscott, Cain & Hague (2007, pp. 616-621) agree, stating that the whole process of New Product Development should start and finish with the customer, i.e. determining the customer requirements and delivering the product to specification at cost and on time. They conclude by arguing that customers are becoming much more selective, so for any product to be successful it must be highly attractive to the customer, therefore designers, sales representatives and marketers need specific skills to articulate the wishes, needs and requirements of the customer (voice-of-the-customer) to facilitate a satisfying end experience for the customer. Campbell et al. (2007, p. 634) continue that this cannot be achieved without constant interaction with the customer.
experience (TT23), argues Ghose (2002, p. 100), is key to creating perception (positive or negative) but the necessity for speed means that companies sometimes skip the essential process of ensuring that the latest business idea or venture actually fits a business need or direction. Geiger & Turley (2006, pp. 835-38) see customer interaction as an integral part of relationship building and the continued cultivation of the customer.

Ahmad & Buttle (2001, pp. 30-33) describe the traditional marketing approach, where organisations determine the needs and wants of their customers. They advise that customers should be organised by market segments, for which specific products are developed. This can then lead to a better appreciation of those customers, and they argue that marketing resources are better spent maintaining current customers than chasing new ones, they stress that it is cheaper maintaining current customers and marketing resources are better spent on effective and measurable customer retention, which they articulate as the 'mirror image' of customer defection. Thereby understanding the customers and the artefacts that are important to them can aid customer retention. This is facilitated in the Customer Matrix of the DaCfA Toolset by ‘the importance of service to the customer’ field, which will enable special focus on key service provision (Chapter 4 p. 102.) this is replicated in the Supplier and Relationship matrices (Chapter 4 pp. 103-104.)

The foundation of any long-term buyer-seller relationship Gruen, Osmonbekov & Czaplewski (2007, p. 540) argue, is the ability of the supplier to deliver fundamental value to the customer. Therefore the measurement of customer retention and defection in quantitative terms becomes a key indicator of success (TT21), and an important business goal. Ahmad & Buttle (2001, p. 39) cite the work of DeSouza (1992) who identified six types of defectors: on price (they can get it cheaper); product (they have found a superior product); on service quality; market (the customer has switched their chosen field of operation); technology (they no longer have a need due to a technical switch for the products/service a supplier provides); organisational switches due to particular ethical or political changes. Ahmad & Buttle (2001, p. 39) continue that it is unrealistic to expect all customers to stay indefinitely and customer switching and re-switching should be expected; measurement should be employed to predict as to when this could happen for customers. On the obverse, they cite examples from corporate banking with credit-driven cultures and profit requirements, which has resulted in the lack of commitment to long-term relationships. Ahmad & Buttle (2001, p. 41) conclude by stating that customer retention management has the potential for delivering substantial benefits in terms of long-term profitability. They advise three things: define a customer retention strategy appropriate to the business; select appropriate customer retention measures; develop and implement strategies that are appropriate to the business context. This enforces the need for the Measurement Template within the DaCfA Toolset (Chapter 4. p. 108), which assists organisations in the description of their measures. These observations link to the construction of TT4.

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10 Rated as a High (H), Medium (M) or Low (L) and included and described as ‘ranking’ column in Figures 4-6, 4-7 and 4-8.
Ahmad & Buttle (2001, p. 34) recognised that customers, as well as suppliers to an organisation, can be classed dependent upon their particular importance to that organisation. A simple method of categorisation could be that of primary and secondary; where primary refers to those customers or suppliers that are key to the organisation existence; whereas secondary are easily replaceable or less financially rewarding to interact with. It therefore becomes vital that organisations understand the customer interactions in terms of their status as a primary or secondary customer/supplier. The Customer and Supplier matrices of the DaCfA Toolset (Chapter 4) capture the context in which the customer/supplier is to be classed as Primary, Secondary or Stakeholder. The latter, in the customer context, is used for regulatory bodies that place, by legislation, specific demands upon organisations (TT7, TT8 and TT9). It is the interaction with the customer where the greatest influence in the supply-chain occurs. Gruen et al. (2007, p. 539).

Customer Interaction-Summary

The concept of customer interaction is designed into the DaCfA Toolset through the application of the Customer, Supplier and Relationship Matrices, with a particular emphasis on the service-to-service interaction contained within the Relationship Matrix.

Theoretical Themes have been identified associated with the supply-chain model (TT7, TT8, TT9 and TT23); together with effective measurement (TT12 and TT21).

Supply-chain

Giumipero, Hooker, Joseth-Matthews, Yoon & Brudvig (2008, p. 68), citing Cooper & Ellran (1993), describe supply-chain management as an approach whereby the entire network from suppliers through to the ultimate customers is analysed and managed in order to achieve the ‘best’ outcome for the whole system. Chan (2003, p. 3549) describes supply-chain management as a set of approaches used efficiently to integrate suppliers, manufacturers, warehouses and stores so that merchandise can be produced and distributed at the right quantities to the right locations and at the right time in order to minimize system-wide costs, while satisfying service level requirements (TT12). The objectives of supply-chain management according to Rabelo, Helal, Lartpattarapong, Moragas & Sarmiento (2008, p. 51) are multi-dimensional and include: cost minimisation; increased levels of service; improved communication among partners and increased flexibility in terms of delivery and response. There are a number of factors which can potentially affect the evolution of a supply chain, such as company characteristics, types of actions, and changes in company behaviour (Li & Chan, 2012, p. 5635).

Effective supply-chain management is increasingly seen as a key determinant of an organisation’s competitive edge (White, Johnson & Wilson, 2008, p. 88); to maintain the pace of innovation in today’s rapidly evolving markets Verona, Prandelli & Sawhney (2006, p. 780) propose that
organisations need to extend their ability to absorb the customer knowledge that lies beyond their reach and influence. Giunipero et al. (2008, p. 67) articulate that for supply-chain management to be effective, it requires the same goals to be present throughout the entire supply-chain, along with a constant customer-focus and complete integration of processes (TT11 and TT13). The challenge for organisations, according to Wadhwa, Saxena & Chan (2008, p. 1374), is to identify and implement strategies that minimize cost whilst maximizing flexibility in an increasingly competitive and complex market. This is supported by Daniel & Rajendran (2005, p.103), citing Lee & Billington (1992), who comment that efficient and effective management of the inventory throughout the supply-chain significantly improves the ultimate service provided to the customer (TT23).

Supplier evaluation is a key aspect of supply-chain management. (Krause & Scannell, 2002, p. 14; Chan, 2003, p. 3559). Evaluating a supplier’s quality, delivery, costs, technical, technological; design, manufacturing and managerial capabilities, and financial performance, before any work has taken place is an essential activity, which is gaining more credibility particularly in areas where supply traceability is essential, for example the nuclear or aviation sectors. Once a supplier is in place the evaluation should be supported by the application of a supplier rating scheme (Muralidharan, Anatharaman & Deshmukh, 2002, p. 23) which continually monitors a supplier’s performance within the characteristics of their continued supply to the organisation. This might include, but not be limited to: delivery times; cost profiles; scrap rework rates. These two elements (supplier evaluation and a supplier rating scheme) constitute what Chen & Paulraj (2003, p. 134) describe as supply management (TT9).

In the context of the supply-chain, Kannan & Tan (2007, pp. 14-18) comment that relatively little attention has been paid to quality. They argue that, by considering quality both internal and external to the organisation, the organisation can have a positive impact upon the measures of quality considered important to the customer (TT13 and TT23), and they stress that having a strong internally-focused quality effort is essential, but positive impact on product and customer service quality can be attributed to externally-focused efforts concerning the customers and suppliers.

Palaneeswaran, Kumaraswamy & Ng (2003, p. 189) argue that the basic objective of supply-chain management is to improve the business processes and interfaces by effecting control and integration. Since supply-chain disruptions can have long-term negative effects on an organisation’s supply chain performance, competitiveness, and financial performance, organisations need to implement a proactive supply-chain risk management strategy towards their vulnerabilities Wagner & Neshat (2012, p. 2878). Poor quality of services, according to Seth, Deshmukh & Vrat (2006, pp. 83-84) is relatively less explored in the context of the supply-chain, and they articulate the correlation between supply-chain performance and service quality. It is therefore argued that being able to clearly articulate the supply-chain in the context of services delivered and received and to understand the
linkages between key customers and suppliers, will give organisations a competitive advantage and the Customer, Supplier and Relationship matrices of the DaCfA Toolset allow for such description.

The internal market focuses on the internal customers and suppliers (Lings, 2000, p. 27); within these internal supply-chains, service providers may not have differentiated between the different types of internal customers and their differing expectations. Lings & Brooks (1998, p. 327) and Lings (2000, p. 28) argue that the internal market consists of groups communicating to other groups within the organisation and internal marketing is considered to be the process of creating market conditions within the organisation to ensure that internal customers’ wants and needs are met. This description by Ling was visible in Case X, where the early (Pilot) workshops tabled three questions to service providers regarding their internal customers: Who are they? What service do you provide to them? How do you measure the level of service quality? Simple questions that cause a discord between service providers unable to clearly articulate the internal supply-chain in action. From this initial question set the DaCfA Toolset Customer, Supplier and Relationship matrices developed (Chapter 4).

**Supply-chain Summary**

The DaCfA Toolset, with a particular reference to the application of the Customer, Supplier and Relationship matrices, can be linked back to appropriate literature concerning Supply-chain Management.

A number of Themes have been identified concerned with Supplier Quality, in the context of the customer perception (leading to TT9, TT13 and TT23); there is also a theme concerned with the setting of adequate measures associated with agreements and controls (leading to TT11 and TT12).

**Customer Focus**

Customer focus is often described as a critical basis for achieving competitive advantage. Bharadwaj, Nevin & Wallman (2012, p. 1012); Ethiraj, Ramasubbu, & Krishnan (2012, p. 137) articulate that operating as a customer-focused organisation is more often the exception than the norm. Although Bharadwaj, Nevin & Wallman (2012, p. 1012) argue that there is emerging consensus that becoming more customer-focused is a strategic imperative, but that how it can be achieved is not fully understood.

The role of the customer and the ability to meet their needs has become evident in management literature (Schofield & Breen, 2005, p. 391). When examining service quality, consideration needs to be given to what the customer expects from the service provision and how the supplier determines this in the service design and provision. To aid this, tools such as Quality Function Deployment (QFD), Voice of the Customer (VoC) techniques and gap analysis tools such as ServQual can be utilised to review any customer initiative (Parasuraman et al., 1985 & 1988). The success of the organisation, according to Chan (2003, p. 2563), depends significantly on the response from
customers, so an organisation should, to the best of its ability, satisfy and accommodate their customers in the long term. To this mix the DaCfA Model and Toolset can be added as it has been developed due to the perceived gap in tools to explore and gain an understanding of who the customer (supplier) is and the services they receive (provide). ServQual assumes that the customer base is known, however within the Case X environment and the pre-work (Xa) concerning ServQual it became clear that any customer survey activity would first require an activity to understand who the customers were and what services they actually receive.

It is not just the staff who are directly interacting with the customer who need to be focused on their needs but the whole organisation needs to be focusing towards this single vision; this view is supported by Weston (2003, p. 19), who comments that everyone within the organisation has a part to play to deliver exceptional customer service no matter what role they undertake. He continues that, when recruiting, organisations should look for people who show evidence that they can maintain customer focus. Lagrosen (2001, p. 350) describes customer focus as the activities of the company benefitting the customer, but the customer is seen from the company’s perspective. Lagrosen (2001) introduces a term, Customer Understanding, which he argues is a shift in perspective to see the customer’s own perspective of the product. Marra (2005, pp. 2-3) comments that focusing on the customer is the fastest and most positive way to create and sustain meaningful change within the organisation. A customer-focused culture would influence the nature and content of the organisation’s vision, business plan and business objectives, which would then flow into customer relationship strategies and down through the entire organisation. Bharadwaj, Nevin & Wallman (2012, p. 1012) suggest that being customer-focused has a significant but indirect effect on customer loyalty. Customer loyalty, often described as “a deeply held commitment to re-buy a preferred product/service consistently in the future” (from Oliver, 1999, p. 34), is an important driver of an organisation’s financial performance.

Adebanjo & Kehoe (2001, p. 53) identify five elements to a successful customer-focused approach:

1. Communications – both internal and external are important for keeping the customers in focus;
2. Employee Focus – all employees know who their customers are (both internal and external);
3. Measures – the use of customer-related measures are an important way of judging overall success and gathering market information;
4. Relationship Building – it is cheaper to maintain current customers than look for new ones, therefore building relationships with those you have is vital; and
5. Reward – rewarding and recognising loyal customers.

Measures (point 3) are central to the DaCfA Model as without measurement improvement is not possible. The Measurement Template has been specifically constructed to articulate an organisation’s
measures so that it focuses on measuring the ‘right things’. These measures only need to be few in number but must be focused as a tool for continuous improvement (TT4, TT11, TT12, TT17, TT18, TT19 and TT22).

Reward (point 5, p. 79) is supported by Barnes, Fox & Morris (2004) who comment that it is essential that organisations create an environment where employees are motivated to be customer-focused in their thinking (TT14). In order to achieve this they believe that there needs to be adequate systems that recognise and reward, and ultimately motivate, employees who significantly contribute towards enhancing the organisation’s service quality. Ethiraj, Ramasubbu, & Krishnan (2012, p. 139) argue that customer demand is a function of customer preferences. As customers’ tastes, income levels, and budget constraints change, so do their preferences. Preference changes will shift the demand curve and promote technological change and innovation.

Kueh & Voon (2007, p. 657) identify culture as a discerning factor that also requires to be understood within the context of service quality. The manner in which a service provider interacts with its customer can have an impact (positive or negative) upon the perception of ‘quality’ received by the customer depending upon their experience of that interaction, they continue that as most nations throughout the world are becoming more culturally diverse, this factor may become more relevant. Their argument echoes that of Mattila (1999, pp. 384-385) who suggested that cultural differences have a significant effect on consumer evaluation of service quality. The quality of a service can therefore be impacted by the perception of that service from a Customer ‘stance’.

For a customer relationship to work the customer has to feel that they will gain something from the relationship (Howcroft, Hewer & Durkin, 2003, p. 1002). Boujena, Johnston & Merunka (2009) articulate that in competitive markets success depends upon the development and maintenance of effective customer relationships. The term ‘Customer Relation Management’ (CRM) is described by Peelen, van-Montfort, Beltman & Klerkx (2009, p. 453) as the union of the Potential of relationship marketing strategies and information technology to create mutually profitable, long-term relationships with customers and other stakeholders. Wang, Lo, Chi & Yang (2004, p. 172) describe the fundamental objective of CRM as being able to ensure a steady stream of revenue and the maximisation of customer life-time value. Customer value, according to Wang et al. (2004, p. 169), is a strategic weapon in attracting and retaining customers. They continue that delivering customer value has become an on-going activity in building and sustaining competitive advantage by CRM performance. The DaCfA Model facilitates discussion about the services received by the customer and the degree to which those services are important to the customer. This data is captured within the body of the Customer Matrix, and once known, appropriate measures (utilising the Measurement Template) can then been allocated to ensure that services identified as of ‘high’ importance to the customer can be scrutinised at the appropriate level.
According to Eggert & Ulaga (2002, p. 108) a customer focus, leading to customer satisfaction has become increasingly popular within the last two decades and is now seen as an important source of revenue for market research organisations. Frost (2002, p. 13) identifies that most large organisations recognise the importance of measuring and monitoring (internal) customer satisfaction (TT7), and understand that measuring satisfaction levels among customers provides a quantitative baseline for comparing results over extended periods of time to enable fact-based decision-making. Customer satisfaction depends upon how well an organisation delivers products and services to external customers, but equally important the delivery of services to internally-based customers and as a consequence the bottom-line (Meisinger, 2003, p. 8). Rampersad (2001, p. 341) supports this by commenting that to realise customer satisfaction everyone within the organisation should consider continuous improvement as something normal. He articulates that the central questions are:

- Which products or services do we provide? (TT11);
- Who are the customers? (TT8); and
- What do they want (what are their requirements)? (TT12).

The elements above formed the basis of the three questions asked within Case Xa on the initiation of a ServQual activity, they became the forerunner to the DaCfA Toolset and suite of matrices and templates.

**Customer Focus - Summary**

The themes discussed within the Customer Focus section have influenced the development of elements of the DaCfA Toolset, in particular the three main matrices within the DaCfA Toolset, namely the Customer, Supplier and Relationship Matrices.

These themes have also had an impact upon the development of the Theoretical Themes associated with topic areas such as: Communication leading to TT1 and TT5; establishing adequate Controls leading to TT11 and TT12: the articulation of Service Quality, leading to TT13 and TT14; Measurement to provide evidence of implementation leading to TT4, TT17 and TT18.

**Internal Customer**

Ullah & Yasmin (2013, p. 3) referring to Money & Foreman (1995) describe the concept of an internal customer where every employee is both a seller and a buyer to other people within the organisation; the DaCfA Model was developed within this environment. Anosike & Eid (2011, p. 2487-2500) articulate internal customer orientation as a critical part of an organisational culture which encourages employees to deliver superior quality to other employees. Customer orientation is central to management thinking especially, for high-performing organisations that strive to satisfy customers at all times. They argue that internal customer orientation is an integral part of the overall internal
Marketing orientation and mediates the relationship between the internal marketing mix by ensuring that organisations are highly aware and responsive to overall (internal/external) customer needs and competitors’ capabilities.

Traditionally, organisations have only concentrated on those customers that are external to their organisation. Barnes et al. (2004) argue that customer orientation is only likely to occur when an appropriate internal design and structure is in place. Anosike & Eid (2011, p. 2501) argue that organisations are looking inwards more than ever before and that introducing quality, enhancing initiatives among employees is essential to achieving business goals. Internal Service Quality is crucial to this process.

Lings (2000, p. 30) along with Lings & Brooks (1998, p. 328) suggest that better service to internal customers should result in better service to external customers, as suppliers become more responsive to the wants and needs of the external customer (TT7). This is supported by Ullah & Yasmin (2013, p. 7) citing (Connor, 2003) who suggest that the value of service conveyed to external customers is often identified by the value of service that internal customers give each other (TT7 and TT8)

According to Hui, Chiu, Yu, Cheng & Tse (2007, p. 152), citing Azzolini & Shillaber (1993), that delivering a quality service to internal customers is likely to leave them with a happier disposition and thus more likely for them to carry out their own work more effectively. Farner, Luthans & Sommer (2001, pp. 351-352) note that there has been much written about the internal customer service, the basic tenet that each department either receives from, or processes work for, another department within the same organisation. Although there has been much criticism regarding treating the internal supply-chain as customers (Farner et al. (2001, p. 353) citing Harari (1991)), the benefits from doing so are that the same discipline of adding value and reducing cost can only serve to improve delivery to the externally based customer. In all cases the measurement of the service provision is essential to ensure that customer requirements are met (TT17).

**Internal Customer - Summary**

The literature shows that focusing on and improving the internal supply-chain will ultimately have a positive impact upon the external supply chain. Therefore this research will show that the DaCfA Toolset is not focused solely upon the external supply-chain and it easily applies to the internal customer and internal supplier focus as well as the externally facing relationships.

The themes identified for further development are the: internal supply-chain (leading to TT7, TT8); and establishing appropriate measures (leading to TT17).
CUSTOMER REQUIREMENTS - SUMMARY

The literature has described the positive aspects that focusing on and improving the internal supply-chain and have on the external supply chain, thus the benefits organisations can gain by developing a customer focus.

A number of Themes have been identified concerned with Supplier Quality, in the context of the customer perception (leading to TT9, TT13 and TT23); there is also a theme concerned with establishing agreements and controls and the setting of adequate associated measures (leading to TT11 and TT12). The theme of communication has also risen as a key enabler to the customer perception of service quality (leading to TT1 and TT5); establishing adequate Agreements and Controls is seen as essential (leading to TT11 and TT12) as well as the articulation of the supply-chain (leading to TT7, TT8 and TT14); finally Measurement is key to provide evidence of implementation (leading to TT4, TT17 and TT18).

These threads are related to a number of the developed Theoretical Themes including those associated with the following elements of the DaCfA Model:

- Purpose: TT1 and TT5;
- Customer Requirements: TT7, TT8, TT9, TT13, TT14 and TT23;
- Controls: none identified; and
- Measurement: TT4, TT11, TT12, TT17 and TT18.

CONTROLS

Charters and Service Level Agreements

A Charter describes the rights and responsibilities a customer/user of a service has should they wish to partake of that service (Beeson, 2006, pp. 19-20). It will describe the level of service a customer should expect to receive from the particular service provider. Charters are normally described in generic terms and are applicable for the entire customer base, for example, a library service. A library service may have a single charter, but multiple SLAs (see below) in place with key customer groups where tailored services are provided. As an example from the University of Portsmouth, the “Student Charter” (n.d.) is described in terms of Our Commitment to you (the rights, for example “treat students, staff and visitors with respect and dignity”) and Your Commitment to us (the responsibilities, as an example, “consider the environment and support the university’s green initiatives”).

In the context of this example, the DaCfA Toolset Purpose Template would capture the main narrative of the published Charter, and the commitments would be allocated as attributes; these would
then have measures associated against each attribute, which would be further described via the Measurement Template.

An SLA is an agreement between two parties detailing the essential elements of the service to be delivered \((TT12)\) by the supplier to the client (Anonymous-2, 2001, p. 351). A SLA, according to Beaumont (2006, p. 381), is a contract that defines services the vendor will provide to the client and specifies information concerning the agreement itself, typically, although not limited to: Availability of the service; Response times to questions or requests for change; how to complain; performance data that will be generated \((TT12)\); how non-conforming material shall be handled. Weston (2003, p. 19) comments that the most effective way of building a good strategic partnership and improving service delivery is by establishing SLAs. The SLA, Beaumont (2006, p. 381) continues, is fundamental to any outsourcing relationship and many organisations are now applying the concepts of SLAs to inter-departmental supplier-customer relationships within the same organisation. The SLA approach can provide stability across that changing landscape. In addition, the approach provides robust mechanisms for partner organisations to establish context, task, and role-based provisions to conduct business (Demirkan & Goul 2013, p. 73).

To be effective, the SLA needs to be simple; with clearly defined, measurable requirements \((TT12)\) and targets that are realistic. The SLA should be used to reassure the customer as well as strengthen the relationship. Beaumont (2006, p. 383) argues that the SLA is an essential component of insourcing or outsourcing arrangements and proposes that the growth in the usage of the SLA is in direct correlation to the increase in such arrangements. The SLA is a formal contract between the service provider and the customer. When signing or accessing the services, the users generally do not read the SLAs; which can create significant problems for the users at a later stage. So it is important for users to read and understand the SLA clearly and carefully before availing themselves of a service from any service provider, Kumar & Pardhan (2013, p. 75). In this context the SLA is used as a control \((TT11)\) against a particular described service, provided to a specific customer(s). For this research, this type of information can either be captured on the Controls Template or the Agreements Template, in either case the associated measures will be articulated in greater detail in the Measurement Template of the DaCfA Toolset.

According to Beaumont (2006, p. 384), an essential aspect of professionalism is making commitments and either fulfilling those commitments or having to suffer the consequences; such commitments, for example delivery times, failure rates, reliability and response times, can be readily described within an SLA. Kumar & Pardhan (2013, p. 65) describe the SLA as a means to provide information to the user about the service levels offered in terms of quality of services, response time, availability, and so on. They continue that within computing services, SLAs are perhaps the most important documents, considering the ever-changing demands of the services, as they create a professional binding for both the customers and the service provider (Kumar & Pardhan, 2013, p. 67).
The success of the SLA and the manner in which it helps to ‘manage’ the expectations of the customer informed this research and was a contributory factor to the Agreement and Control check boxes that form part of the Customer and Supplier matrices in the DaCfA Toolset.

**Charters and Service Level Agreements - Summary**

The charter has been described as setting the generic principles of the service being delivered and the SLA as the specific agreements between a customer and service provider. The DaCfA Toolset in the form of the Agreements and Controls Template is designed to capture the main ‘requirements’ of the Agreement or Control and express them in terms of clear measures.

The themes identified are associated with establishing appropriate agreements and controls (leading to TT11, TT12).

**Process Management**

A process is a clear control that is utilised to ensure repeatability of a particular service or attainment of a product or service standard. A process can be defined as a logical sequence of activities Peelen, van-Montfort, Beltman & Klerkx, (2009, p. 457), who continue that examples of significant improvements in customer satisfaction are mainly driven by improvements in processes. The processes (from a services context) were reviewed from a customer’s viewpoint and improved by a focus on: first call resolution; appointment scheduling; closed-loop satisfaction calls; field service optimisation and proactive management of customer expectations. This final item correlates with outcomes from the ServQual activities within Case Xa, where it was identified that gaps in service were around the ‘communications’ to the customer regarding the service, rather than working hard within the service.

Hoyle & Thompson (2001, pp. 13-14) describe a process as that which enables a result to be achieved, whereas a procedure enables a task to be performed, thus meeting a specific business requirement (TT2 and TT3). Other descriptions include that processes are operated and managed, whereas procedures are implemented; procedures focus on satisfying the rules and a process focuses on satisfying stakeholders. Procedures cause people to take actions and make decisions; processes cause things to happen. From these descriptors it is clear that these are forms of Control as identified within the DaCfA Model, whereby they are used to ‘control’ the manner in which a service or product is delivered (TT11).

The last two decades have seen Business Process Management (BPM) evolve from various process-related theories and practices, such as Business Process Re-engineering, TQM, Lean Management, Six Sigma, and Supply-Chain Management, to various process-related technologies, such as workflow Knowledge-Intensive Business Processes management systems, Enterprise Resource
Planning and most recently to web-service integration, Marjanovic & Freeze (2012, pp. 181-182). BPM initiatives are being adopted by organisations to coordinate effectively the built-in intelligence within their existing systems in order to respond with the right action at the right time to customer needs (Batista, Smart & Maull, 2008, pp. 535-537). More than two decades of BPM has resulted in a significant number of fully automated, transactional business processes, across all industry sectors (Marjanovic & Freeze, 2012, p. 180). Batista, Smart & Maull (2008, pp. 535-537) argue that by integrating customer relations and operational processes, this systems approach gives providers coherence of understanding regarding service processes and as well as consistency of service quality. Beimborn & Joachim (2011, p. 341) state that “BPM relies on measurement activity to assess the performance of each individual process, set targets and deliver output levels which can meet corporate Objectives”. Furthermore, Beimborn & Joachim (2011, p. 334) articulate that investigating the effects of business process quality is important, because “the quality of the enterprise’s products and services is a direct reflection of its ability to improve its processes”. One of the DaCfA Toolset artefacts, the Measurement Template, has been specifically designed to capture measurement from across the enterprise and to articulate, the leading/lagging and hard/soft indices as well as the form the measurement takes, e.g. financial, customer satisfaction, process (e.g. cycle time) (TT12, TT18, TT19 and TT22).

Harmancioglu, McNally, Clantone & Durmusoglu (2007, pp. 419-420) state that formal processes, clear project goals, and senior management supervision may provide efficiencies and reduce conflicts. They argue that flexible processes and informal interactions facilitate creativity, however they stress that the over-reliance on brainstorming and informality may add to cycle time, operational costs and frictions. Adhering to a structured process (particularly in areas such as new product development) with pre-determined time-based objectives can lower costs as re-work and modifications can be avoided due to the practice of well-developed and actioned routines. Shepherd, Gardial, Johnson & Rentz (2006, pp. 115-132) discuss the differences between the experts and the less-skilled within a field and identified that there were many similarities in the way expert salespersons utilised ‘decision’ processes and procedural knowledge when compared to experts in other fields, such as game play (chess), medicine and teaching. Processes are one of the main categories of controls utilised within the DaCfA Toolset artefacts.

**Process Management-Summary**

This section has been concerned mainly with process management and how it is utilised to control a service or product being delivered. The specific concept of process management should be in the DNA of any successful organisation. The DaCfA Model values processes as a form of control to ensure consistency over service provision; with appropriate process measures to assure that each process is performing as it should. The themes identified are concerned with the selection of appropriate controls (leading to TT11, TT12) and the setting of appropriate measures (leading to TT18, TT19, TT22).
CONTROLS - SUMMARY
Controls have been addressed from two specific positions those used to tie in the financial and performance of the product or service being provided to the customer (Charters, SLAs, Contracts) and those designed to ensure repeatability of the product or service being delivered, that is the customers receive the same tomorrow as they did today (Process, Procedure, Template, Protocol). These have been specifically addressed within the Customer and Supplier matrices as well as the Agreements and Controls Templates of the DaCfA Toolset.

A number of themes have been identified associated with establishing appropriate agreements and controls (leading to TT2, TT3, TT11, TT12) and the setting of appropriate measures (leading to TT18, TT19, TT22). These have led to a number of the developed Theoretical Themes including those associated with the following elements of the DaCfA Model:

- Purpose: none identified;
- Customer Requirements: none identified;
- Controls: TT2 and TT3; and
- Measurement: TT4, TT11, TT12, and TT18.

MEASUREMENT
Concept of Measurement
Strategic performance measurement systems such as the balanced scorecard (Kaplan & Norton (1992)) and the performance pyramid Wedman & Graham. (1991 & 1997) have always attracted much attention. These systems primarily focus on the implementation of all the strategic objectives in the whole organisation. Additionally, they provide feedback to Senior Management for learning and improvement purposes (Mitchell, Nielsen, Nørreklit & Nørreklit, 2013, p. 6)

Measurement is a key management activity; it provides the information necessary for effective decision-making, for monitoring performance and enabling effective resource allocation (Webster & Hung, 1994). Korhonen, Laine & Suomala (2012, p. 41) argue that the use of measures should also question the strategy and provide a critique of the strategic assumptions being made.

Straker (1995) describes measurement as information gathering in two broad categories: quantitative, for example things that can be counted or some form of physical assessment such as a cycle time which are also described as objective or hard measures, that is something that cannot be easily questioned and qualitative; or non-numeric, often data gathered from opinion surveys, questionnaires etc., which can be described as subjective or soft measures (TT22). Measures can be further sub-classified as leading, that is relevant and current, such as a run chart, or lagging, such as an end-of-project review. The DaCfA Toolset utilises these categorisations of Hard/Soft, Leading/Lagging
within the Measurement Template (Chapter 4, p. 108) and aids the facilitation of a robust and balanced suite of measures.

Organisations often rely on strategic performance measurement systems to facilitate managers’ strategic decision-making. By aligning strategic constructs, initiatives, and objectives with related performance measures (TT21), these measurement systems function as a framework that organises the organisation’s information environment around its strategy, Choi, Hecht & Tayler (2012, P. 106). They continue that organisations sometimes establish elaborate measures that are seldom collected and rarely fed back into the system over which they are reporting to facilitate improvement (TT18).

Organisations need to understand the outcome they are trying to achieve and to select the appropriate set of measures to achieve that aim, a balanced set of hard and soft measures that are both leading and lagging in nature (TT17, TT21 and TT22). The Measurement Template, (Chapter 4, p. 108), within the DaCfA Toolset, has been constructed to describe measures in a format that will be repeatable and, more importantly, meaningful to the organisation.

Gathering data in the context of measurement, if not integral to the product or service provided and balanced in the context of the type and number of measures (metrics) being collected, may lead to more problems than those generated by not undertaking the measurement in the first place. Excessive measurement can be as much a burden to the business as non-measurement could be to the financial stability of the business (TT18). MacInnes (2002) advises that the number of metrics should be considered; too many could confuse the employees and slow down potential process-improvement efforts; (TT18) too few measures may not provide enough detail upon which to properly focus. MacInnes (2002) advocates the balanced approach (TT18 and TT19) and suggests concentrating around three types of performance metric: financial, behavioural and core-process.

MacInnes (2002) describes eight attributes of metric generation:

1. “What are you measuring”?
2. “What will be the frequency of measurement”?
3. “How long will data be collected”?
4. “Who will measure it”?
5. “How will it be measured”?
6. “How will it be charted”?
7. “What action will be taken after the data is interpreted”?
8. “Who will be responsible for follow-up action”?

These attributes are built into the DaCfA Measurement Template (Chapter 2, p. 18) that describes a measure in the context on ten dimensions: What is the title of the measure?; What is the purpose of the measure? How important is the measure to be captured? How easy is it to capture the data? What
type of measure is it, e.g. Customer satisfaction? What form does the measure take, i.e. Hard/Soft, Leading/Lagging? How is the data captured? When is the measurement taken? What are the measures success criteria? and How will the results be utilised, e.g. feed back in to improve the process? The Measurement Template captures items 1, 2, 3, 5, and 7 of the MacInnes attributes for metric generation (TT17, TT18, TT19, TT22).

Performance measurement, according to Folan & Browne (2005, p. 531), has undergone a transformation in the modern organisation. A common measure of business performance is an outcome-based indicator of financial performance (Chen & Paulraj, 2004, p. 145) which is normally based upon the fulfilment of the economic goals of the organisation (TT21). They continue that a broader and more effective business performance measurement approach should also include indicators of operational performance, which reflect more directly the effectiveness and efficiency of the operations within the organisation (TT17), whereas the financial measures tend to be a reflection of factors outside the organisation’s boundaries (Chen & Paulraj, 2004, p. 146). Getty & Getty (2003, p. 94) conclude that quality is a multi-dimensional concept that cannot be easily defined or measured.

Concept of Measurement - Summary

The essence of the above is establishing the right suite of measures, to measure the right things. The DaCfA Model, and specifically the Measurement Template (Chapter 4, p. 108.) addresses the key aspects of a clearly articulated measure as described by (MacInnes, 2002).

The threads identified within the literature are specifically emphasising the need for organisations to establish a key set of measures that are robust and balanced (leading to TT17, TT18, TT19, TT21 and TT22).

Measuring Service Quality

Service is an important characteristic in the satisfaction of clientele. Services are distinguished from products, such as software, in that they relate to performance and process rather than to more concrete traits that can be tested, counted, and measured, Jiang, Klein, Parolia & Li (2012, p. 150). Measuring service quality is important, so that it is possible to improve perceived service quality, to make a difference and to obtain superiority in competitive environments. Altuntas, Derelib & Yilmaz (2012, p. 1379). The term Service Quality can and does mean different things to different people; one concept is that service quality is governed by the interaction between the customer and the service provider, rather than the ‘product’ itself. Cronin & Taylor (1992, p. 62), citing Bolton and Drew (1991), noted that “Service Quality is an outcome of Customer Satisfaction”, likewise a good interaction with a helpdesk can resolve or improve a bad perception of service quality which has been obtained through ‘poor’ product ‘quality’. Claycomb & Martin (2001, p. 390) cite Gilpin (1996) who described service quality as the “consistency with which customers’ expectations are met and the
general superiority of the service relative to that of the competition”. Lewis, Orledge & Mitchell (1994, p. 4) describe service quality as the “focus on meeting customer requirements and how well the service delivered matches customer expectations”. Henning-Thurau, Groth, Paul & Gremler (2006, p. 60) describe this scenario as a “customer’s cognitive assessment of an affective state”. They introduce the term of ‘Customer-employee rapport’, which they articulate as the perception of the customer having an enjoyable interaction with a service provider and they conclude that Customer-employee rapport is a most important issue for service organisations as it is gained through a single interaction, and does not depend upon shared long-term history. Webster and Hung (1994) comment that “we see things from our point of view”, they continue that to deliver quality it is important to see things from the customer’s perspective; they refer to this as “think like the customer”.

Henning-Thurau et al. (2006, pp. 62-68) argue that a service provider’s emotional display can trigger changes in a customer’s affective state; they articulate this as “when a customer is influenced by a service provider’s positive emotion as the result of a service interaction, the customer is likely to enjoy that interaction to a greater extent”. Ahmad & Buttle (2001, p. 37), from the marketing perspective, describe customer retention as a consequence of customer-perceived service quality and articulate a cause and effect between expectation and experience providing a positively greater impact on the perception of the service delivered and thus the perception of Service Quality. Davies, Baron, Gear & Read (1999, p. 33), comment that the assessment and assurance of quality within service provision is a concern that manifests itself in both the public and private sectors. Dabholkar & Overby, (2005, p. 23) articulate that service quality precedes customer satisfaction, that is that the emotion of satisfaction or dissatisfaction can be formed only after customers experience a service and then evaluate and perceive the excellence of that service.

Davis, Baron, Gear & Read. (1999, p.34) comment that the most widely-used approach to measuring service quality has been that devised by Parasuraman, et al. (1982, 1985 & 1988) in the 1980s and was styled ServQual, which is one of the most discussed approaches to the measurement of service quality. The ServQual methodology is used to determine levels of Service Quality, but more importantly to develop the ability to understand areas for improvement from both the Customer and Service Provider Context (TT13).

ServQual is a questionnaire-based methodology primarily used for identifying customer expectations and perceptions regarding service quality (TT4). Unlike most conventional survey techniques it also identifies the service provider’s understanding of customer expectations and the service provider’s view on how they believe it (the service provider) is performing, Figure 3-1, p. 91.
The ServQual methodology addresses five dimensions of Service Quality as indicated in Table 3-1.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>Physical facilities, equipment, and appearance of personnel.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide prompt service.</td>
</tr>
<tr>
<td>Assurance</td>
<td>Knowledge and courtesy of employees and their ability to inspire trust and confidence.</td>
</tr>
<tr>
<td>Empathy</td>
<td>Caring, individualized attention the firm (Organisation) provides its customers.</td>
</tr>
</tbody>
</table>

Table 3-1: Characterisation of the Five Dimensions of Service Quality. Source: Parasuraman et al. (1985)

There have been many published accounts regarding the ServQual methodology. The model, which was originally designed for the measurement of the external Customer/Supplier interface, has been used in both the internal and external context. Examples of these various applications: INTSERVQUAL is an adaptation of the ServQual model by Frost & Kumar (2000 & 2001) particularly designed for the internal supply-chain, within an international airline; LibQUAL, as described by Cook, Heath, Thompson, & Thompson (2001), is an adaptation of the ServQual Model developed specifically for Academic Research Library (ARL); SERVPERF, Adil (2013), devised by Cronin & Taylor (1992 & 1994) and Taylor & Cronin (1994) was based upon the original ServQual Model but with a prime focus of a SERVice PERFormance only approach; Atrek & Bayraktaroğlu (2012) within the field of higher education; BANKSERV, developed by Avkiran (1999), with other applications in retail banking by Haque (2013) and Corneliu (2011); application within the Hotel sector, described by Markovic & Raspor (2010); Airline application by (Aydin and Yildirim, 2012).
The flexibility of the approach with respect to generic use across any service relationship has been rigorously challenged. As an example, Staples, Darlymple & Bryar. (2003) describe the application with respect to assessing Call Centre Quality and the ServQual Model not being portable across all service disciplines. Portability of the ServQual dimensions is discussed by Farner, Luthans and Sommer (2001) who to a greater extent expand the arguments of Cook et al. (2001) and Staples et al. (2003). Dack & Reed (2007) showed through their research that covered both the Public and Private Sector that these dimensions of quality are transferable to any sector.

Ladhari (2009, p. 191.) reviewing twenty years of the application of ServQual and reviewing over 25 adaption of the original model, determined that despite the apparent shortcomings in the ServQual scale, many practitioners continue to find the instrument useful for the measurement of service quality. Furthermore recommends that the scale be adapted dependent upon the research criterion undertaken.

Finally, for a customer satisfaction orientation to be successful within an organisation, it requires personal leadership and involvement of senior executives in creating and sustaining a customer focus (TT5), exhibiting clear and visible quality values and expectations (Muffatto & Panizzolo, 1995, p. 161). Customer value is seen by Setijono & Dahlgaard (2007, p. 46) as customers’ perceived preference for and evaluation of product (or service) attributes. So by identifying what is seen as adding value to the customer (TT13), understanding that value and establishing appropriate measures, improved customer satisfaction should be achieved as a consequence. Tontini & Silveira (2007, p. 496) agree and they comment that fulfilling customers’ needs and exceeding their expectations is fundamental for the success of an organisation in the long-term; however, exceeding expectations can cost, the art is to constantly understand the customers’ changing expectations and constantly meet them. The underlying principle of ServQual is to establish a zero gap between expectation and delivery. Initially applying, then adapting the concept of the ServQual Model and seeing the benefits it had within the Case X environment was the inspiration for this research project.

**Measuring Service Quality - Summary**

Service quality is concerned with focusing on the needs of the customer, it is mainly concerned with the softer aspects of quality, the non-tangible elements, those things that are hard to contextualise, the measurement of such is from a perception view point, which is every part as powerful as that from a hard measure, Phillips (1997, pp. 4-7). The concept of who is the customer; what do they want and with what are they provided sets the basic concept of ServQual model as well as the developed DaCfA Model, with the principle that the art of service quality, is not about exceeding the customers’ expectations, but understanding them and delivering what they need, when they need it.
The themes identified are concerned with concept of leadership commitment (leading to TT5); understanding the concept of Service Quality (leading to TT7, TT8, TT13); establishing the appropriate Controls (leading to TT11, TT12) and setting the appropriate level of Measurement (leading to TT4).

**MEASUREMENT - SUMMARY**

This section has only covered the subject of measurement related to two specific strands, the concept of measurement and service quality. Of the former, the development of the Measurement Template (Chapter 2, p. 18) has been linked to literature, namely MacInnes’s eight attributes for measurement.

Service quality has been discussed in a very generic terms, although a key focus has been on the ServQual Model and Instrument as developed by Parasuraman *et al* (1982, 1985 and 1988).

A number of threads towards the Theoretical Theams have been identified mainly concerned with the understanding and communicating levels of service quality (leading to TT5, TT7 and TT8); establishing appropriate Controls (leading to TT11 and TT12); setting and maintaining appropriate measures (leading to TT4, TT17, TT18, TT19, TT21 and TT22). Aligning these Theoretical Themes to the following elements of the DaCfA Model:

- Purpose: TT5;
- Customer Requirements: TT7, TT8 and TT13;
- Controls: none identified; and
- Measurement: TT4, TT11, TT12, TT17, TT18, TT19, TT21 and TT22.

**CHAPTER SUMMARY**

This chapter has developed an understanding of the literature associated with developing a Customer focus. Using the elements of the DaCfA Model (Chapter 4, Figure 4-2, p. 97) as a conduit it has examined topics such as:

- Purpose (mission, vision, strategy, communications);
- Customer Requirements (customer interaction, customer focus, supply-chain and the internal customer);
- Controls (charters, service level agreements, process management); and
- Measurement (concept of measurement and service quality).

The literature has assisted in the development of the theoretical framework to underpin the research and has built the link from the previous Pilot within Case Xa which provided the building blocks for
the Literature Review. The literature has also informed the development of the Theoretical Themes (Appendix E) and of the DaCfA Model and Toolset (Chapter 4, pp. 100-108). Twenty three Theoretical Themes (Appendix E), which are readily observed in organisations undertaking a Customer-focused activity, have been discerned and have been identified throughout this literature review and have been highlighted in each of the DaCfA Element Summaries (pages 121, 130, 140 and 145). All of the 23 Theoretical Themes can be set within the context of the DaCfA Model:

- Purpose: TT1, TT5, TT6, TT15 and TT16;
- Customer Requirements: TT7, TT8, TT9, TT13, TT14 and TT23;
- Controls: TT2, TT3, TT10 and TT20; and
- Measurement: TT4, TT11, TT12, TT17, TT18, TT19, TT21 and TT22.

The literature has also provided a basis for triangulation which will assist in the validation of research conclusions and recommendations.
Chapter 4

The Developing a Customer-focused Approach (DaCfA) Model and Toolset

INTRODUCTION
The purpose of this Chapter is to describe the relationship between the Developing a Customer-focused Approach Model and Toolset; to provide a brief overview of the development of the toolset and to portray the DaCfA Toolset artefacts in the context of data capture.

MOTIVATION AND SEQUENCE OF THE RESEARCH ACTIVITIES
In excess of 20 internal business areas from Case X (labelled Case Xa) participated in the ServQual activities with over 1,600 customers and 700 service providers taking part in the resultant surveys. Appendix A illustrates the profile of 16 of those business areas demonstrating the variety of service providers that were engaged. Appendix A utilises the Organisational Continuum Profile Tool, which is used in this research to understand organisational variation over several factors, such as size (it is described in Chapter 2 p. 17-18).

Part of the preparation, when undertaking a ServQual survey, was to ensure that the right people participated and that the right statements were posed within the ServQual questionnaire. In preparation service providers were asked:
- who are your customers?
- what services do you provide to them?
- how do you currently measure the level of service quality?

These three simple questions caused much debate and it was soon identified that business units had difficulty grasping the concept of the internal supply-chain and were blurring the boundary between customer and supplier, particularly if the same area was both a customer in one context and a supplier in another. To eliminate this confusion, a simple matrix was developed to capture the key elements from the questions above. In addition it gathered information on: how important are the customers to the business (primary/secondary customer or stakeholder (as an example a regulator), and what agreements are in place with the customer, such as a Service Level Agreement (SLA). In the service delivery context the questions addressed are: what services are delivered to the customer? how important are those services believed to be to the customer? and how is the performance of the service measured? Figure 4-1, p. 96.
However, the Customer Matrix needed to be expanded to fully address the key ideas expressed in the three questions above, p. 95. Consequently, the Supplier Matrix, to understand the supplier context, was introduced and, a short while afterwards, these two matrices were supported by the introduction of the Relationship Matrix (how the suppliers identified on the supplier matrix support service delivery to the customers). It was at this point in the development of the matrices that the toolset should not only be used in a ServQual activity, but it would also add value, if developed further, to assist organisations in understanding their approach to supply-chain management and ultimately developing a Customer-focus. The model and approach was named the Developing a Customer-focused Approach (DaCfA) with the development as well as the robust testing of this model and its associated tools as the central theme of this research. The DaCfA Model and Toolset (a suite of eight matrices and templates) are described below pp. 100-110.

The success within the Case X environment provided the encouragement and motivation to take the DaCfA Model and Toolset outside the Case X environment and test it in external organisations, as well as in the external supply-chain context.

The Timeline

The Pilot Activity (Case Xa) and Research timeline commences in 2001 when Case X identified a requirement to implement a company-wide customer satisfaction methodology. Circa 2006 the application of the DaCfA Model and Toolset, developed by this Researcher, was positively received within Case X and was believed to be in a position to test outside of the Case X environment. The timeline and key steps in the research sequence for the testing of the DaCfA Model and Toolset are illustrated in Figure 2-1 (Chapter 2, p. 7) with a detailed sequence of activities identifying the research controls, inputs and outputs illustrated at Figure 2-13 (Chapter 2, p. 55).
THE DaCfA MODEL

The DaCfA Model, Figure 4-2, below identifies the inter-relationship between the Purpose of the organisation; the requirements of the organisation’s Customers and the Controls established to satisfy those requirements. Central to this Model is the application of robust Measurement.

![Diagram of DaCfA Model](image)

Figure 4-2: The DaCfA Model. Source: Author.

The interaction of the DaCfA Toolset with the four elements of the DaCfA Model is illustrated at Figure 4-4, p. 100.

THE DaCfA TOOLSET

The DaCfA Toolset is a collection of interactive matrices and templates (Figure 4-3 below) specifically designed to assist organisations in the identification of good practice or areas for improvement within the supply-chain.

![Diagram of Interactive DaCfA Toolset](image)

Figure 4-3: The Schematic of the Interactive DaCfA Toolset. Source: Author.
The DaCfA Toolset consists of eight artefacts in the form of three matrices and five templates. The application of these artefacts is described in Figures 4-5 to 4-12 (pp. 101-108), which take the form of pictorial representations of the artefacts and an aide-memoire for their completion. Table 4-1, pp. 109-110, lists the matrices and templates and describes their purpose and the nature of the data they capture.

Each artefact within the DaCfA Toolset was designed to be used either in a standalone context or in conjunction with other artefacts within the DaCfA Toolset. Whether used singly or as a collection the artefacts should be applied so as to add value to the organisation, rather than applying the entire suite just because they are available.

The Customer Matrix, Figure 4-6, p. 102, was the first artefact to be developed, designed to help organisations understand who their customers were and the services they provided to them, to identify information required to help stratify customer surveys and to ask the ‘right’ form of questions within the survey tool. This is associated with the Customer Requirements element of the DaCfA Model (Figure 4-2) above.

The next two artefacts developed were the Purpose Template Figure 4-5, p. 101, (associated with the Purpose element of the DaCfA Model) to assist organisations to articulate their vision or mission statement, followed by the Measurement Template Figure 4-12 p. 108, (associated with the Measurement element of the DaCfA Model) to assist an organisation to articulate its measures.

Of all of the DaCfA Toolset artefacts, the Measurement Template, from a facilitator’s perspective, provided an interesting insight into the organisation. The majority of the organisations in this research and quite evident in the pilot activity (Case Xa), believed that they had robust measures in place and were adequately capturing and utilising that data. However, as this research will demonstrate, in a number of the cases the articulated measures were not well defined and they were not utilising the captured data to improve the area being monitored.

The Supplier Matrix Figure 4-7, p. 103, was designed to capture data about the way in which products or services enter the supply-chain, whereas the Relationship Matrix Figure 4-8, p. 104, provides the bridge between the services delivered to the customer and those received from the organisation’s suppliers. Both of these matrices are associated with the Customer Requirements element of the DaCfA Model.

In addition to the items described above there are a further three templates, which are all associated with the Controls element of the DaCfA Model at Figure 4-2, p. 97. These are:
The Agreement Template Figure 4-9, p. 105, which may be used to articulate an agreement with either a customer or a supplier, such agreements can take any form, but the most commonly described as a Contract or a SLA;

The Controls Template, Figure 4-10, p. 106, which is designed to capture and articulate the controls employed either on the services being delivered to customers or those controlling the services or products received into the supply-chain; and

The Risk Mitigation Template, Figure 4-11, p. 107, which is designed to capture, articulate and set mitigation against risks identified in the Customer, Supplier and Relationship Matrices.

**CHAPTER SUMMARY**

This Chapter demonstrates the relationship between the four elements of the DaCfA Model and the suite of eight matrices and templates that constitute the DaCfA Toolset. The DaCfA Model and Toolset artefacts are illustrated in Figures 4-5 to 4-12 and summarised in a narrative form in Table 4-1. It also sets the scene of the motivation under which this research is commenced.
Figure 4-4: Relationship between the DaCfA Model and the DaCfA Toolset. Source: Author.
The Purpose Template

In groups, brainstorm the purpose of the ‘organisation etc.’ As a whole, share, discuss and add as required. Finalise the Purpose.

As a whole, select some of the **key attributes** that best context the purpose of the ‘organisation’.

Identify the **measures** that contribute to the measurement of the key attributes of the purpose statement.

Figure 4-5: The DaCfA Purpose Template. Source: Author.
The Customer Matrix

Identify the Customer Groupings, their size (number) and classify as a Primary / Secondary Customer or Stakeholder.

List the services delivered. How they believe the Customers rank that service (importance to them). How that service is currently measured, and the controlling mechanism employed.

Indicate what services are provided to what Customers. Indicate how the levels of the service are agreed with their Customers.

Review to see if the completed matrix ‘holds water.’

Figure 4-6: The DaCfA Customer Matrix. Source: Author.
Figure 4-7: The DaCfA Supplier Matrix. Source: Author.
The DaCfA Model and Toolset

Figure 4-8: The DaCfA Relationship Matrix. Source: Author.
Figure 4-9: The DaCfA Agreements Template. Source: Author.
The Controls Template

Name the control.

Describe the form the control takes, is it a procedure, process, work-flow etc.

How is the effectiveness of the Control measured?

Who owns the Control?

Figure 4-10: The DaCfA Controls Template. Source: Author.
The Risk Mitigation Template

Describe the risk and where it was raised and who owns it.

Allocate the score for likelihood & impact and assess the risk score.

Describe the mitigation action and the projected risk score once the mitigation has been implemented.

Describe the timescale for mitigation implementation, how implementation will be measured and who owns the mitigation if different to the risk owner.

Figure 4-11: The DaCfA Risk Mitigation Template. Source: Author.
The Measurement Template

If applicable, indicate if it contribute to the Prime Measure and it’s contribution (in % terms).

Where was the Measure Identified.

Name the Prime Measure and describe its purpose.

<table>
<thead>
<tr>
<th>Prime Measure</th>
<th>Purpose of Prime Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name the Measure and describe its purpose.

Rank the importance of the Measure and how easy it is to collect the data.

Describe the type of Measure e.g. Customer Satisfaction.

Describe the form of the Measure. Hard/Soft, Leading/Lagging.

Describe how data is collected and when.

Describe the Measures Success criteria and how the results and data will be used.

Figure 4-12: The DaCfA Measurement Template. Source: Author.
<table>
<thead>
<tr>
<th>Artefact</th>
<th>Purpose</th>
<th>Capturing</th>
</tr>
</thead>
</table>
| Purpose Template      | Designed to capture the purpose statement (Mission or Vision) of the business area. It lists the attributes of the statement with the identification on how those attributes are or could be measured. | The Purpose description  
The Attributes contained within the purpose statement  
The Measures associated with the articulated attributes |
| Customer Matrix       | Designed to capture the business areas Customer and the services provided to those customers and how that service is controlled and measured. | Customer name and group size  
Customer importance (primary, secondary, stakeholder)  
Customer Agreement established (e.g. SLA)  
Risks associated with the customer agreements  
Description of the mitigation associated with the customer agreement risks  
Description of the Service Provided  
Estimate of the importance of the service to the customer (H,M,L)  
Description of the Control used to deliver the service  
Description of the Measure used to monitor the service  
Risks associated with the service control or measure  
Description of the mitigation associated with the service control or measure risks  
Notes on any risk mitigations  
A matrix that identifies what services are provided to what customers |
| Supplier Matrix       | Designed to capture the business areas Service Providers and the services received from those suppliers and how the service provided is controlled and measured. | Supplier name and group size  
Supplier importance (primary, secondary)  
Supplier Agreement established (e.g. SLA)  
Risks associated with the supplier agreements  
Description of the mitigation associated with the supplier agreement risks  
Description of the Service Received  
The importance of the service received (H,M,L)  
Description of the Control used to receive the service  
Description of the Measure used to monitor the service provision  
Risks associated with the service control or measure  
Description of the mitigation associated with the service control or measure risks  
Notes on any risk mitigations  
A matrix that identifies what services are provided by what service provider |
| Relationship Matrix   | The Relationship Matrix captures what received services are used in the supply of services delivered. | Services delivered to Customers and the perception of importance  
Services received and importance  
Risks that occur at the service to service interface  
Notes on any risk mitigations  
A matrix that identifies what services received are required to deliver the services to customer |
| Agreements Template   | The Agreement template captures and articulates agreements listed in the Customer and Supplier Matrices and expands them to | Description of the Agreement  
Identification of the Key Aspects of the Agreement  
Description of the Measures associated with the |
<table>
<thead>
<tr>
<th>Artefact</th>
<th>Purpose</th>
<th>Capturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controls Template</td>
<td>The Controls template captures and articulates controls listed in the Customer and Supplier Matrices and expands them to clarify what form the control takes as an example <em>procedure</em>; who owns that control and how the effectiveness of the control is measured.</td>
<td>Name the Control&lt;br&gt;Description of the control takes e.g. Procedure; Process&lt;br&gt;How the Effectiveness of the control is Measured&lt;br&gt;The Owner of the control</td>
</tr>
<tr>
<td>Risk Mitigation Template Figure 2-10</td>
<td>Captures, articulates and sets mitigation against risks identified in the Customer, Supplier and Relationship Matrices.</td>
<td>Description of the Risk&lt;br&gt;Describes where the risk is raised&lt;br&gt;The Likelihood (score) of the risk occurring&lt;br&gt;The Impact (score) upon the business if the risk materialises&lt;br&gt;The Risk Score before Mitigation&lt;br&gt;Description of the Risk Mitigation&lt;br&gt;The Projected Risk Score after the mitigation has been applied&lt;br&gt;Timescale associated with the Mitigation&lt;br&gt;Description of how the Progress of the mitigation will be measured</td>
</tr>
<tr>
<td>Measurement Template Figure 2-11</td>
<td>The Measurement template captures all of the listed measures from the matrices and templates, and is used to expand the description of the measure by the application of the template.</td>
<td>On which matrix or template was the Measure identified? (Sometimes this can be in more than one place)&lt;br&gt;What is the Name of the measure&lt;br&gt;Describe the Purpose of the measure (Why is it being taken?)&lt;br&gt;Assessment of the important of the measure to the Unit (H,M,L)&lt;br&gt;Assessment of the ease to capture the data (1=Easy – 4=Hard)&lt;br&gt;Description of the Type of measure (e.g. Financial; Customer Satisfaction)&lt;br&gt;Description of the Form the measure takes (i.e. leading, lagging, hard (quantitative), soft (qualitative)&lt;br&gt;A description of how the data is collected, what is the algorithm to be used&lt;br&gt;Describe when is the data collected&lt;br&gt;Describe what the acceptance criteria is; what makes it go Green, Amber, Red&lt;br&gt;Describe how the results be utilised, What is the algorithm to run the calculations and how are the results fed back to improve the item being measured&lt;br&gt;Does the measure being described contribute to a larger KPI or Prime Measure</td>
</tr>
</tbody>
</table>

Table 4-1 Description of the DaCfA Artefacts. Source: Author.
Chapter 5
Data Collection and Analysis

INTRODUCTION
This Chapter critically reviews the case study data, to develop the reader’s understanding of the achievement of the Research Aim and Research Objectives stated in Chapter 1, on p. 4. The analysis provides evidence that the DaCfA Model and Toolset items (templates and matrices) are an effective approach to assist organisations in internal supply-chain identification, RO1; including evidence of its applicability in organisations other than Case X, RO2; and in fields other than those associated solely with an internal supply-chain context, RO3. And, finally, the findings from this research are related to the relevant literature using a set of Theoretical Themes that were identified, at the end of Chapter 3, p. 94, as readily observed within organisations initiating a Customer-focused activity, RO4.

The DaCfA Toolset was tested in eight workshops, where each workshop consisted of a minimum of one to a maximum of eight participants (plus a facilitator) and during which some or all of the DaCfA Toolset items (eight in total) were applied. These items, in relation to the concepts of the DaCfA Model (Chapter 4 Figure 4-2, p. 97), were:

- **Purpose:**
  1) Purpose Template.

- **Customer Requirements:**
  2) Customer Matrix;
  3) Supplier Matrix; and
  4) Relationship Matrix.

- **Controls**
  5) Agreements Template;
  6) Controls Template; and
  7) Risk Mitigation Template.

- **Measurement**
  8) Measurement Template.

To test the ‘usability’ and ‘effectiveness’ of the DaCfA Toolset, 11 Instruments (Appendix I) were designed and used to capture relevant data, from a maximum of four viewpoints (listed below). Using
these instruments, data was captured from six of the eight workshops, and is included in the case study write-ups. The 11 Instruments captured information from three distinct groups of participants: Workshop participants Case C to Case H; Team leaders associated with the workshop cases (C to H) and Facilitators of the workshops, cases (C to H). Moreover, the data is triangulated across the four viewpoints to understand the correlation between:

- The DaCfA Toolset (1 instrument for each of the eight matrices/templates);
- The Overall Activity (1 instrument);
- The Team Leader Viewpoint (1 instrument); and
- The Facilitator Viewpoint (1 instrument).

Each instrument is analysed in four dimensions (in the context of the DaCfA Model):

1. Vertically down through the Case Study to understand how the DaCfA Toolset is embraced by each of the cases;
2. Horizontally across the Case Studies to determine which instrument statement received the better/worse rating and how that impacts upon the case assessment and why;
3. In a Cross-case (Instrument Review) Context, to understand what impact the position of an organisation on the OC Profile Tool has upon the perception of the ‘usability’ and ‘effectiveness’ of the suite of DaCfA Toolset Artefacts; and
4. In a Cross-case (TT Observation) Context, to comprehend each case study organisation’s perspective of the theoretical themes as derived from the literature.

Each of the four dimensions is supplemented with qualitative (narrative) examples from the case study write-ups to reinforce the quantitative data, and are interwoven with evidence of the 23 Theoretical Themes identified through the Literature Review and/or the Pilot activities undertaken with Case Xa within the Case X environment. The themes (TTs) (Table 5-1, p. 113 and Appendix E) have been categorised into Keyword Groupings that are associated with the concepts of the DaCfA Model:

- Purpose (five associated TTs);
- Customer Requirements (six associated TTs);
- Controls (four associated TTs); and
- Measurements (eight associated TTs).
A narrative review was carried out against seven of the case study write-ups (Case A – Case G) by four reviewers (described in Chapter 2, pp. 44-45) and corroborated observations (two or more reviewers observing the same TT) are recorded on Table 5-1 and Table 5-2, p. 114 below, where the validity of each TT/Keyword, is reported in the context of:

- Strength (Å): the extent to which an observation is verified by the reviewers, that is 2, 3 or 4 reviewers observing the same TT (7 x 23); and
- Percentage (Ñ): the number of corroborated observations verses the potential to be corroborated, that is each corroborated TT has the potential on being observed four times (4 x 69).

<table>
<thead>
<tr>
<th>Case Study (Organisation)</th>
<th>Keyword (DaCfA Model Theme)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Corroborated Observations = 168/276% = 61%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>(1,5,6,15,16) (inc. Mission/Vision and Communications)</td>
<td>2</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Customer Requirements</td>
<td>(7,8,9,13,14,23) (concerning the Supply-chain)</td>
<td>4</td>
<td>50</td>
<td>2</td>
<td>50</td>
<td>2</td>
<td>50</td>
<td>63</td>
<td>2</td>
</tr>
<tr>
<td>Controls</td>
<td>(2,3,10,20) (inc. Risk)</td>
<td>2</td>
<td>50</td>
<td>2</td>
<td>50</td>
<td>2</td>
<td>50</td>
<td>63</td>
<td>2</td>
</tr>
<tr>
<td>Measurement</td>
<td>(4,11,12,17,18,19,21,22)</td>
<td>3</td>
<td>50</td>
<td>2</td>
<td>50</td>
<td>2</td>
<td>50</td>
<td>63</td>
<td>2</td>
</tr>
</tbody>
</table>

Strength Å

Keyword Corroboration Strength (Å)

<table>
<thead>
<tr>
<th>Keyword Corroboration Strength (Å)</th>
<th>Purpose</th>
<th>Customer Requirements</th>
<th>Controls</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength Å</td>
<td>29 56</td>
<td>38 38</td>
<td>0 0</td>
<td>3 8</td>
</tr>
<tr>
<td>% Corroboration (Ñ)</td>
<td>39% 39%</td>
<td>35% 34%</td>
<td>0 0</td>
<td>4 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TT Observations</th>
<th>Corroborated</th>
<th>Single</th>
<th>Total TT Observed</th>
<th>% (Ñ) Corroborated Observations for the Suite of Case = 69/161% = 43%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 9 8 5 5 18</td>
<td>8 7 4 5 12 4</td>
<td>17 16 15 19 10 17 22</td>
<td>113</td>
</tr>
</tbody>
</table>

At the time that the theme review was undertaken the longitudinal case study of Case H (the eight case) was still being undertaken.
<table>
<thead>
<tr>
<th>Theoretical Theme</th>
<th>Case Study Organisation (Reviewer Observation)</th>
<th>Corroborated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
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<td>0</td>
</tr>
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<tr>
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<tr>
<td>6</td>
<td>2</td>
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<tr>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
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<td>13</td>
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<td>14</td>
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<td>1</td>
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<td>2</td>
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<td>19</td>
<td>1</td>
<td>2</td>
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<td>0</td>
</tr>
<tr>
<td>23</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>TTs Observed by One Reviewer</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>TTs Observed by Two Reviewers</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>TTs Observed by Three Reviewers</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>TTs Observed by Four Reviewers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total of the 23 TTs Observed</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Corroboration Strength (Â)</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>% Corroboration (Ñ)</td>
<td>9</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 5-2: Observation of the 23 Theoretical Themes. Source: Author.
DATA ANALYSIS

The data analysis has been carried out in the context of the DaCfA Model Elements:

- Purpose;
- Customer Requirements;
- Controls; and
- Measurement.

Purpose

This section describes the outcome of the analysis of the DaCfA Purpose Template. The Purpose Element of the DaCfA Model consists of a single template which was applied to six of the Cases (C-H). Feedback from workshop participants regarding the effectiveness of the tool was captured using the DaCfA Toolset Instrument (Appendix I) and is detailed at Appendix G (Table As and Table Bs) with Mean values captured in Tables 5-3, p. 116 and Table 5-4, p. 118 below.

Analysis is carried out vertically (through the Case Studies) and horizontally (across the suite of Case Studies), as well as within the context of the Cross-case Matrix to gain an understanding of the workshop participants’ perception of the value of the Template within a particular organisation when compared with the other case studies. In addition, these three contexts are interwoven with observations regarding the literature (the TTs as defined in Appendix E).

Purpose Template

i. Vertically through the Case Studies

The combined Mean Value for this Template from the six Case Studies (Table 5-3, p. 116) is a positive 4.64 rating which is above the set threshold of acceptability for an acceptable response\(^\text{12}\). The highest rating is from Case F with a very positive 5.2, and the lowest rating at 3.75 was from Case G, that commented that the Purpose Template “Highlighted the fact that the team could do with more training in certain areas of the business to better support our customers’ needs”. Case G appeared to have a well-established Mission/Vision, which may account for its lower rating of this template.

\(^{12}\) Threshold of Acceptability calculated as a median value of 3.50 for the Likert Type Scale selected (1 to 6).
Table 5-3: Representation of Tables A DaCfA Instrument Mean Values. Source: Author.

Case F described its purpose, through the application of the Purpose Template, as “to provide benchmarking, networking and learning opportunities to large public and private sector organisations in order that they can improve their Business Performance”. The application of the Purpose Template assisted Case F to describe, for the first time, the attributes (outputs) that are required to convey this purpose into the business. Four attributes were described together with five key measures that will assist in the description of how the purpose is achieved. The application of Case F’s purpose is an indication of TT6, which is concerned with the alignment of strategy/actions to attain organisational purpose.

In the context of (Case A, p. 8), the application of the DaCfA template identified that there was no visible plan in place to ensure the delivery of the Audit Charter, which, again, relates to TT6. During the use of the template it became obvious that a number of the Audit Team members were unaware of the existence of the Audit Charter and that this situation would not have been uncovered without the application of the DaCfA Toolset.

Furthermore, there is a strong indication of TT6 in Case G, with three of the four reviewers observing the TT. This is revealed as the transformation of non-supportive Local Authorities (LAs) into supportive LAs, this topic is discussed in detail at p. 135, within the Customer Matrix section. This concept from the literature is also seen in a lack of description of the activities necessary to deliver the “purpose” (Mission/Vision) TT15 and in the absence of detail regarding the term “Provider of Choice” and leads to a lack of detail regarding how the “vision” will be realised Case G (p. 5).

---

13 A full description of the 23 Theoretical Themes can be found at Appendix E.
14 The case study write-ups referenced within this Chapter do not form part of an annex to this thesis; however they are available upon request. Reference to Case page numbers are the page numbers as they appear within the case study write-ups.
Likewise, TT15 can be observed in (Case D, p. 7) where there was “little evidence” that the Case’s purpose “to provide a general Management Education that promotes an holistic view of Management, Organisation and their global Environment, etc.” was used to drive business direction. The Purpose Template enabled (Case D, p. 19) to articulate the attributes and measures necessary to verify the implementation of the Purpose Statement within the business. The application of the Purpose Template aided Case D to identify that it was not currently measuring the attribute associated with celebrating success. Case D rated this template positively at 4.80.

Within Case G there is a very strong observation (all four reviews) of TT16. This manifested in the (Case G, p. 8) as a statement concerning the “difficulty to identify the activities in place to deliver their vision” and the ability to turn around “non-supportive LAs into supportive LAs”.

Case H rated the template at 5.00, and commented positively that the application of the Purpose Template “gave an understanding of what the team thought was their purpose and how that aligned to the Senior Management Viewpoint”.

Case C rated the purpose template at 5.10 and with a statement range 0.50, was the most consistent of all of the cases for this template. Applying this template assisted it to “develop a good understanding of Service Delivery/Measurement through the purpose discussions” and to articulate its purpose (Case C, p. 20) “To deliver cost effective, co-ordinated catering services to meeting current and future business requirements and appropriate agreed and recognised standards are met” against which five attributes were described, measured by five items. Case C is the only case, within the Purpose concept of the Model, to have a corroborated observation of TT5, in that the Director was not recognised as a customer of the service.

Case E rated the Purpose Template at 4.00; it facilitated the capture of its purpose as “Hill Farm subsistence – keeping the farm as a going concern”. Within Case E, TT1 was observed as the lack of any formal communication methodology, (as an example a SLA) that engaged with both the Case E’s Customer and Service Provider. Case E use a “shake of the hand”. In (Case A, p. 8) TT1 is also seen inasmuch as the Audit Team members were unaware of the Audit Charter that had previously been communicated to their Customers.

Furthermore, TT1 was displayed in Case B, where 300% more customers claimed to have returned the Servqual instrument, than actually had, (Case B, p. 10).

ii. Horizontally across the Case Studies
Referring to Appendix G Table 5-4 A1, the highest mean value, 5.00 occurs for Statement 6, which is concerned with how helpful/useful the workshop participants believed the purpose artefact to be.
In all cases the rating for the Purpose Template is above the 3.5 Threshold of Acceptability p. 36, with Case G rating it the lowest at 3.75. However, since Case E has no internal supply-chain, it is a one man-band with only one customer and one supplier; the driver for a actively developed and communicated Purpose Statement does not really exist.

Case G on the other hand, had a well-developed and socialised Mission/Vision Statement, the working purpose developed to further articulate the Mission was “to raise the awareness of school governance and to recruit enthusiastic volunteers to serve as “School Governors”. The lack of operating to this purpose was emphasised in (Case G, p. 7) when it was identified that one of the five described attributes “pastoral care of volunteers” was recognised as a gap in the current processes.

<table>
<thead>
<tr>
<th>Instrument Title: Purpose Template</th>
<th>Case</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
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<tr>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Case Mean</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Case Range</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Statement Means Range §</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Statement Mean/Mean ‡</td>
<td>4.64</td>
<td></td>
</tr>
<tr>
<td>Case Mean Range ∞</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td>Case Mean/Mean ≠</td>
<td>4.64</td>
<td></td>
</tr>
</tbody>
</table>

Comment of Responders:
- Case C – developed a good understanding of Service delivery/measurement through the Purpose discussions.
- Case D – Would have gained benefit applying as a Team.
- Case G – Highlighted the fact that the team could do with more training in certain areas of the business to better support our customer’s needs.
- Case H- As team leader I was able to understand what the team thought was their purpose and how that aligned to the senior management viewpoint.


Statement 1 returned the lowest mean at 4.09, but still above the acceptable threshold. However, within this statement two Cases (E & G) rated their responses below the acceptable threshold. Therefore, the correlation here between Statements 1 and 6 within Cases E and G is an indication of construct validity, as described by Fowler (1995, p. 139), where statements measuring similar things receive similar responses.

15 Indicates the number of responses received from workshop participant, no number in the bracket indicates a single response.

16 A full list of the Statements used in each Instrument can be found at Appendix I.
iii. In the Cross-case (Instrument Return) Context

Table 5-5 (B1 of Appendix G) and Table 5-6, p. 120, it can be seen that the continuum with the greatest mean percentage difference is customer interaction, at 9.97%\(^{17}\).

<table>
<thead>
<tr>
<th>Continuum</th>
<th>% Difference</th>
<th>Descriptors</th>
<th>Mean Ø</th>
<th>Range Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Interaction</td>
<td>9.97</td>
<td>90.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Type</td>
<td>5.43</td>
<td>36.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Culture</td>
<td>7.86</td>
<td>8.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Excellence Rating</td>
<td>5.43</td>
<td>36.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Size (Facilitation Style)</td>
<td>1.08</td>
<td>10.73</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Remote (E,F,G,H)</th>
<th>Integrated (C,D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Range</td>
<td>Range</td>
<td>Range</td>
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<td>0.75</td>
</tr>
<tr>
<td>2</td>
<td>4.73</td>
<td>1.38</td>
</tr>
<tr>
<td>1.50</td>
<td>4.76</td>
<td>1.63</td>
</tr>
<tr>
<td>4.73</td>
<td>1.38</td>
<td>2</td>
</tr>
<tr>
<td>4.67</td>
<td>1.67</td>
<td>1.50</td>
</tr>
</tbody>
</table>

Table 5-5: B1 – Continuum/Cross-case Context Purpose Statement Template Instrument Source: Author.

The closely rated continuum is Group Size which the 1-2-I group rated at 4.67, compared to 4.62 for the Greater than 2 grouping. This demonstrates that the Purpose Template is useful whether it is used on a 1-2-I or a group basis. Across the other three continua - Product Type, Service Culture and Business Excellence Rating, there was little or no difference between the associated descriptors. Although there is only a slight difference in respondent feedback regarding the Purpose Template, utilising the mean figures from Table 5-2, p. 114, this template is perceived, by workshop participants to operate more effectively in organisations that are Integrated with their customers; that have a Physical Product; that Operate with an Established Service Culture; that have not undertaken a Business Excellence activity and that the Template would be best delivered within the activity undertaken in a 1-2-I Environment. This gives an indication of the perceived value of the DaCfA Toolset and Model and the position an organisation occupies on OC Profile. This observation leads to Recommendation 1 (Chapter 8, pp. 185-186) which is concerned with the perceived enhanced application of the DaCfA Toolset matrices and templates in certain profiled organisations.

\(^{17}\) with Descriptors Integrated 4.95 versus Remote 4.48.
Moreover in the context of facilitation, the mean value of Researcher-facilitated cases equals 4.57 whereas the independent facilitator rates to 5.00, which strongly suggests that the effectiveness of the Purpose Template is not dependent upon the facilitation by the Researcher.

iv. Cross-case (TT Observation) Context
When reviewing in the context of the Cross-Case Matrix (Appendix J) there were no significant observations made regarding the Theoretical Themes (TT1, 5, 6, 15 and 16) associated to the Purpose Template.

Purpose (TT) Keyword Grouping Summary
Referring to Table 5-1 and Table 5-2, the Case Study with the highest corroborated TTs within the Purpose Keyword Grouping is Case G with all five of the themes from the literature (TTs) being observed and four being corroborated (Ñ = 80%) strongly (Ã = 75). An example is where Case G (p.
5) describes the *Partner of Choice* goal for LAs with no articulated action to turn customers described as Non-supportive into Supportive LAs (Case G, p. 8).

The Theoretical Themes observed the most are TT1 and TT6 observed at 57%. As an example of TT1 which was observed in Case A where team members were unaware of the existence of the Audit Charter; this gap was only identified by the application of the DaCfA Toolset, Customer Matrix (Case A, p. 9).

**Purpose Summary**

To summarise, there is a positive view of the usability and effectiveness of the Purpose Template from the workshop participants, whether reviewed vertically or horizontally, the mean value of the workshop participants’ feedback is 4.64. The highest scoring case with the lowest range across the statements was Case C at 5.1 mean and 0.5 range, which also commented that through application of the Purpose Template it “developed a good understanding of service delivery/measurement through the purpose discussions”. Case G rated the template the lowest at 3.75, but accompanied the rating with the positive comment that it “highlighted the fact that the team could do with more training in certain areas of the business to better support our customers’ needs”.

Looking across the cases, the highest rated descriptor is Customer Interaction (*Integrated*) at 4.95 and the lowest rated was Service Culture (*Emerging*) at 4.40, a positive indication of the perception of the effectiveness of the template by the workshop participants.

As to the facilitation, there is evidence that the Researcher has not influenced the perception of the template by the workshop participants as the researcher-facilitated cases have rated the Purpose Template lower at 4.57 when compared to the independent-facilitator cases at 5.00.

Therefore with a mean of 4.64, coupled with positive comments received from workshop participants, there is a strong positive opinion towards the Purpose Template. The template has been tested both inside and outside the Case X context, and with both internal and external supply-chains. It has been confirmed that the Purpose Template aspect of the DaCfA Model is fit for all types of organisations (RO1, RO2, and RO3).

In the setting of the literature and Case X and Pilot (Case Xa), the expected Theoretical Themes are evidenced and provide a link from this suite of Case Studies to theory (RO4).
Customer Requirements

The Customer Requirements DaCfA Toolset consists of the Customer, Supplier and Relationship Matrices; these matrices were applied within six (Cases C-H), five (Cases C-F and Case H) and four (Cases D-F and H) cases respectively.

This section describes the outcome of the analysis of these three customer associated DaCfA Toolset Matrices.

Feedback regarding the usability and effectiveness of the matrices was collected via completed instruments (questionnaires), from workshop participants, including Team Leaders and Facilitators. This feedback is summarised in Appendix G (Table As and Table Bs) where the mean values of these instrument returns are summarised in Tables 5-1, p. 113, Table 5-2, p. 114, Table 5-3, p. 116 and Table 5-6, p. 120. The statements (questions) presented within the Instruments can be viewed at Appendix I.

The analysis is carried out vertically through the table to ascertain how useable and effective each case found the matrices; horizontally across the table to understand which particular statement within the Instruments received the highest or lowest support and within the context of the Cross-case Matrix, to understand if the workshop participants believe the matrix performs better within any particular organisation compared to another. As before, these three contexts are interwoven with observations regarding the Theoretical Themes (Appendix E) within the case study environment.

Customer Matrix

i. Vertically through the Case Studies

The combined mean value (Table 5-3, p. 116) of the six cases that provided feedback is 4.52 (which is above the 3.50 threshold for an acceptable rating from workshop participants). Of the six cases, Case D rated the Customer Matrix at the highest score attainable, 6.00. Furthermore, workshop participants commented that the customer matrix was “the easiest to understand”.

During the activity, Case D identified nine Customers, three of whom were classed as Primary; two as Secondary and four as Stakeholders, who are provided with 15 services, six of which are believed to be of high importance to the customers. The focused application of the Customer Matrix highlighted to Case D that four of the nine identified customers (one Primary and three stakeholders) had no form of agreement in place, be that a contract, SLA or charter used to describe the level of service the customers could expect from their interaction with Case D. This is a manifestation of the finding from the literature regarding the description of Service Quality to Customers, namely that organisations do not always understand how they have described service quality to their customers, be they external or internal (TT13).
This theme occurred frequently across the seven cases and was observed from the gaps that were identified through the application of the Customer Matrix. In Cases A and B, TT13 is observed where the number of Customer groups identified as participants in the Servqual survey activity was reduced and became more focused once the Customer Matrix had been applied and the organisations gained a better understanding of the services that they provided to their customer base. Therefore a number of potential participants could be eliminated from the Servqual activity and the survey focussed on those customers who received services within the scope of the Servqual survey (Case A, p. 9) and (Case B, p. 13).

Furthermore, of the five customers identified by Case B, four lacked any description of the service quality to be provided; and within Case H, half of the customers had no description of the level of service they could expect from (Case H, p. 12).

Case G rated the Customer Matrix at 3.32, slightly below the 3.50 threshold, they did however state that the Customer Matrix “outlined the organisation in such a clear chart”. Part of the categorisation of the customers identified two similar groups, Supportive Local Authorities (LAs) and Non-supportive LAs, but there was no evidence that Case G had any plan or method identified to turn the Non-supportive LAs into Supportive ones, which is opposed to its published Mission/Vision statement, which describes its aim to become a “partner of choice for Local Authorities”. This is an indication of the theme from the literature that organisations speak, but do not act with the customer in mind (TT14). Therefore, the application of the Customer Matrix identified the gap regarding a lack of planned intervention to turn Non-supportive into Supportive LAs (Case G, p. 21). This is also an example of the situation where perception of the Customer (TT23) was not fully understood and how it could have an adverse impact upon the successful delivery of Case G’s Mission/Vision. It is also a symptom of TT14 (discussed above).

Furthermore, in relation to customer identification, it was observed in Case C that, prior to the application of the Customer Matrix, the prime customer had been missed from previous activities that had been undertaken (Case C, p. 7). This is a clear example of the literature theme that organisations do not clearly understand who their customers are and the differences between them (TT8). Case C rated the Customer Matrix as 5.10, which is a strong positive indication that the matrix is usable and effective; moreover they supported this rating with the comment that the Customer Matrix is “very useful”.

ii. Horizontally across the Case Studies
Looking across the Case studies, there is a marginal difference of 0.50 separating the eight statements posed as part of the Customer Matrix Instrument (Appendix G, Table A2). Statements 2, 3 and 8 all received mean ratings of 4.83. Statements 2 and 3 were concerned with the improved understanding of services provided to Customers in general and specifically. Statement 8, (with the smaller range
across the cases) was better-rated statement and is concerned with the perception of the usefulness of applying the Customer Matrix within the organisations.

The lowest response rate across the cases was assigned to Statement 4 which is concerned with understanding the Controls associated with the services provided by the organisations. However, this Statement still achieved a 4.33 rating.

The two lowest rating cases within this statement were Case E, where there were no formal controls in operation (Case E, p. 16) and Case H where controls had either been identified as “to be defined” or those controls that were in operation were owned by a third party (Case H, p. 12).

The overall statement mean across the eight statements equated to 4.60, which demonstrates that the matrix is regarded as acceptable.

iii. In the Cross-case (Instrument Return) Context
Reviewing Table 5-6, p. 120 and Appendix G (Table B2), the continuum with the greatest percentage difference on mean values is the area of Customer Interaction Continua with a rating for the Integrated Descriptor (Cases C and D) of 5.55 strongly above the 3.50 threshold and 27.75% above the Remote Descriptor Grouping at 4.01. The Product Type (Physical) and Business Excellence (No-score) receive the next highest percentage difference rating at 23% comparing 4.86 compared to 3.84 for the other descriptors. Service Culture (Emerging) rates next at percentage difference at 17% at 5.05 and 4.26 for the Established Descriptor. Finally Group Size (Facilitation Style) as rated at 4.81 in the 1-2-1 Descriptor compared to 4.22 within the Greater than 2 Descriptor.

Therefore from the workshop participants’ feedback, the Customer Matrix is perceived as operating more effectively within organisations that are Integrated with their Customer; provide a Physical Product; have an Emerging Service Culture; have not undertaken a Business Excellence activity and where the DaCfA activity is conducted in a 1-2-1 Environment.

The cases were also reviewed in the context of the Facilitator who overviewed the activity. The mean value of those cases facilitated by the Researcher equated to 4.57, whereas those facilitated by an Independent Facilitator equated to 4.25 which strongly suggests that the success of the Customer Matrix is not influenced by the facilitation of the Researcher.

iv. Cross-case (TT Observation) Context
There were no significant observations made in the context of the Customer Requirements or specifically the Customer Matrix context during the Cross-case Matrix (Appendix J) comparison of reviewer observations.
Customer Matrix Summary
When reviewed in either the vertical (4.52) or horizontal (4.60) context the mean values provide a good indication that the Customer Matrix is seen as acceptable to the workshop participants. The Case rating the customer matrix the highest at 6.00 is Case D, with Case G rating it slightly below the 3.50 threshold at 3.32, however Statement 8 regarding the usefulness of applying the Customer Matrix within the Case G organisation was rated at 4.00 and supported by the comment “outlined the organisation in such a clear chart”.

When the matrix is reviewed in the context of the cross-case scenario, the highest rated Continuum Descriptor sits at 5.55 (Customer Interaction (Integrated)) and the lowest rating at 3.84 within the Business Excellence Rating (greater than 200 points) Descriptor, which indicates that this matrix is acceptable in any of the continuums measured.

When reviewing the responses in the context of the different facilitators, as was reflected previously above, there was little to separate the results which supports that Researcher’s comment that the successful rating of the tool has not been influenced by the facilitation of the Researcher (4.57 compared to 4.25).

In the context of the literature, evidence has been provided (via case study write-ups and Reviewer Observations) of the presence of TTs 8, 13 14 and 23, therefore providing a link to the Theoretical Themes and those found within the Literature Review.

Therefore, with an instrument mean value of 4.52 and positive comments received from the workshop participants, there is a positive opinion towards the Customer Matrix, and as the matrix was tested both inside and outside the Case X context, as well as on the internal and external supply-chain this confirms that the Customer Matrix aspect of the DaCfA Model is appropriate to all types of organisations and addresses the aspect completely and beneficially (RO1, RO2, RO3).

There is also strong evidence of the presence of the TTs associated with the Customer Matrix and therefore this research supports the literature regarding themes that can be readily observed within organisations initiating a Customer-focused (DaCfA) activity (RO4).

Supplier Matrix
i. Vertically through the Case Studies
Reviewing Table 5-3 and Table A3 of Appendix G the combined Case Mean for the Supplier Matrix is 4.26. From the five cases that responded, Case D rated the Matrix the highest at 6.00 commenting that “the Supplier Context was more complicated than initially thought”. Case D identified 18 Suppliers over half of these Case D (p. 14) had no form of Agreement in place, that is either a
Contract or SLA. This is a clear indication of TT9 concerned with the context of the supplier to customer delivery. The Suppliers provided 24 Services of which 67% were identified as having no formal controls in place, and 63% of the services provided did not have any measures in operation. This is a manifestation of TT11 and TT12 that will be discussed later in the Measurement Section. Just over half of the services received Case D (p. 21) had no control or measurement associated to it.

The lowest case rating is Case F at 2.4. During the application of the Supplier Matrix with Case F, a number of Case F’s suppliers were omitted from the Supplier Matrix; this only came to light once the Relationship Matrix had been applied. The rating of the Supplier and Relationship matrices by Case F is an indication of Internal Validity as described by Bryman & Bell (2007) where a certain condition led to other conditions for example, a missing Supplier from Supplier Matrix causes low ratings; discovery of missing suppliers during Relationship Matrix actively causes high ratings.

Case C rated the Matrix as a strong 5.2, coupled with the comment that it was “interesting to see how Suppliers and Services are linked”.

**ii. Horizontally across the Case Studies**

The Statement Mean realised 3.99. The Statement that is rated the highest is Statement 2 concerning the improved understanding of services received; the lowest rated is Statement 3 concerned with the understanding of the services received from each Supplier; the case rating the lowest was Case F at 1.00 which can be correlated to the poor identification of Suppliers during the activity and is a visible indication of construct validity (Fowler 1995, p. 139) where the consequence of one effect upon another can be observed. Case F identified 11 Suppliers with 36% of these Suppliers having no formal agreements in place. These Suppliers delivered 10 Services; the application of this Matrix assisted Case F in the identification of Primary Suppliers (six in total) through the services they deliver.

**iii. In the Cross-case (Instrument Return) Context**

Referring to Table 5-6, p. 120 and Appendix G (Table B3), it is identified that the continua with the greatest percentage difference on Case Mean are Product Type where Physical out rates Virtual and Business Excellence where no score out rated the greater than 200 points descriptor. The continuum with the highest mean score is Customer Interaction Integrated at 5.6.

The respondent feedback describes the Supplier Matrix as working more effectively in organisations that are Integrated with their customer, have a Physical product; who operate with an Emerging service culture; who have not undertaken a Business Excellence activity and is facilitated as a Group. This pattern seems to replicate the Customer responses where those organisations integrated into an organisation, know that organisation better and are more likely to understand the services required from Suppliers to satisfy the needs of the Supply-Chain.
iv. Cross-case (TT Observation) Context
Referring to the Cross-case (Appendix J) Matrix, there are no significant observations to be made regarding Customer Requirements. However, when viewed in the context of the Cross-case Matrix, TT9 is not evident in Cases that have a Business Excellence score of greater than 200 points. This gives an indication that organisations’ that have undertaken a Business Excellence activity have an understanding who their Suppliers are. This is a lead for further research regarding the position an organisation sits on the OC profile and the visibility of TTs. Recommendation 2 (Chapter 8, pp. 187-188).

Supplier Matrix Summary
When reviewed in both the horizontal and vertical contexts the Matrix has been rated positively. The lowest rated, Case F can be linked to poor identification of Suppliers. The highest rated Case is D at 6.00.

Reviewing in the context of the cross-case scenario, the highest rated continuum descriptor is Customer Interaction Integrated (5.6) and the lowest Product Type Virtual and Business Excellence greater than 200 points both at 2.4, strongly influenced by Case F.

In the facilitation view it has been identified that the Researcher has not influenced the positive outcome of results as in this Matrix the independent facilitation has shown a higher rating at 5.00, compared to that of the Researcher at 4.35.

Focussing on the Theoretical Theme TT9 has shown across five of the cases, mainly in the lack of Supplier understanding and the context of service provision. Although there was no clear Customer Requirement indication in the Cross-case Matrix, when viewed in isolation TT9 did give a clear indication that it was not observed in organisations that had undertaken a Business Excellence activity and attained a greater than 200 points score. This has led to Recommendation 2 (Chapter 8, pp. 187-188) concerned with the position an organisation sits on the OC Profile and the TTs that are observed.

With the Instrument Mean at 4.26, which is a strong positive indication of the benefits obtained by applying the Supplier Matrix and that this Matrix is tested inside and outside of the Case X environment as well as in the internal and external Supply-Chain, the results of testing has provided sufficient evidence to confirm that the Supplier Matrix aspect of the DaCfA Model is sufficient for all types of organisations and addresses the context of RO1, RO2 and RO3 completely.

There is also sufficient evidence to identify the presence of various TTs (as an example TT9) and therefore as this research both supports the earlier case findings and those identified with the literature this supports the claim that these TTs can be observed with organisations undertaking a customer-focused activity (DaCfA) and supports RO4.
Relationship Matrix

i. Vertically through the Case Studies

Referring once again to Table 5-3 and Appendix G (Table A4) the overall Mean for this Matrix is 4.10, above the acceptable threshold; however overall this is the lowest rated Matrix of the DaCfA Toolset.

Of the four cases that provided feedback, Case F rated this Matrix the highest at 5.00. This rating reflects that Case F (p. 21) had missed key suppliers from the Supplier Matrix activity and the very low rating given under that Matrix, is reflected as a strong positive rating for this Matrix when the error was discovered. The Relationship Matrix enabled Case F to link the 10 Services that it provides to its Customers with the 10 Services that it purchases, it was in this situation that Case F (p. 13) identified the gap with Supplier Identification. This is an example of TT7, (the highest observed TT along with TT13) where Case F did not identify their entire suite of service providers, which the Relationship Matrix helped to identify where the service received verses the service delivered was correlated. Other examples of TT7 manifested in Case C (p. 15) where the primary customer appeared to be forgotten until the second run-through of the Customer Matrix was undertaken.

In Case A (pp. 6-7) and Case B (p.10), the lack of stakeholder knowledge presented itself during preparation for a Servqual activity and the application of the suite of DaCfA matrices enabled a focused stratification of customer services to ensure that the right stakeholders were surveyed regarding the correct services. Within Case G the supportive versus non-supported LAs is an example of TT7 as Case G had no strategy or working plan translating aspiration (Mission/Vision) into reality.

Case D rated this Matrix at 4.20, stating that “the purpose of this matrix seemed less clear compared to others”. This was the lowest rating Case D gave to any of the matrices it had identified. Case D had previously identified 15 services it supplied to its customer and it received 24 services, no risks to service delivery were identified. The application of the Relationship Matrix enabled Case D to re-evaluate its service catalogue, re-group and re-title a number of its services (Case D, p. 5).

Case E (Appendix G Table A4) rated the Matrix the lowest of the four workshop participants at 3.20, marginally below the threshold. This is not surprising as with only two customers and one service provider and one service being provided, and one service being received the application of the Matrix might seem ‘over the top’ for the situation.

The final case to utilise the Matrix was Case H, which rated it at 4.00. Case H had previously identified seven services it delivered and seven services it had received through the application of this Matrix two risks were identified, regarding the services delivered with respect to servicing of Critical Plant and that regarding the Management of generated information.
ii. Horizontally across the Case Studies
There is no significant difference across any of the Statements with a Statement Mean of 4.15 and a
range of 0.25 across the five statements which is the most consistent rating out of any of the Matrix
Instruments. The highest rated statements at 4.25, Statements 3, 4 and 5. Statements 1 and 2 are both
rated at 4.00. Statement 5 “overall how useful you believe the activity is for your business” rated the
equal top response.

iii. In the Cross-case (Instrument Return) Context
Returning to Table 5-6, p. 120 and Appendix G (Table B4) the continuum with the largest percentage
difference on Mean is Product Type and Business Excellence Rating, both these groups have one of
the descriptors shaped by the single Case F, therefore the mean value of this descriptor cannot be
reduced. Two of the continua; Customer Integration and Group Size Facilitation have a very small
Mean percentage difference at 3.00%

Reading the continua as rated by the workshop participants; the Relationship Matrix is perceived to be
received better in organisations that are: Integrated with their culture; have a Virtual Product Type;
have an Established Service Culture; have undertaken a Business Excellence activity, scored greater
than 200 points and is facilitated in a 1-2-1 situation.

Reviewing in the context of Facilitators, the Researcher cases rated at 4.13 whilst the Independent
facilitator cases rated at 4.00, supporting the Researcher’s statement that perceived acceptance of the
Toolset is not purely though the facilitation by the Researcher.

iv. Cross-case (TT Observation) Context
There were no significant observations made in the context of the Customer Requirements or
specifically the Relationship Matrix context during the Cross-case Matrix (Appendix J) comparison of
reviewer observations.

Relationship Matrix Summary
Reviewing in both the vertical (4.10) and horizontal (4.15) context the Mean Values are both above
the threshold.

The case rating the Relationship Matrix, the highest is Case F, at 5.00, which can be explained by the
benefit this case gained by applying the Matrix and identifying two missing Suppliers.

The Case rating the Matrix the lowest was Case E, which only delivers and receives one Service,
therefore the application of the Matrix could be seen as over-the-top. When reviewed in the Cross-
Case Scenario, the highest rated continua are Product Type Virtual and Business Excellence Rating
greater than 200 points, both influenced by a single case, Case F (the highest rating). The lowest rated continuum was Service Culture Emerging at 3.70, but still above the acceptable threshold.

In the context of the Facilitation it has been established, like the previously discussed matrices, that the facilitation by the Researcher has not influenced the outcome of perceived usefulness of the Matrix to the cases that have participated in this research (4.13 verses 4.00).

From a Theoretical Themes viewpoint, TT7 and TT13 were observed in six of the seven cases by the Reviewers, being was the highest observed TTs. Therefore, providing a link to the Theoretical Themes identified during the Literature Review.

Therefore, with an Instrumental Mean of 4.10, there is positive opinion towards the Relationship Matrix, and as this Matrix was tested inside and outside the Case X environment as well as on the internal and external Supply-Chain it is confirmed that the Relationship Matrix component of the DaCfA Suite of tools is appropriate to all forms of organisations and the aspects of RO1, RO2 and RO3 fully.

There is a strong indication of TT7 and therefore this research supports the previous findings and literature regarding the Theoretical Themes which can be readily observed in organisations undertaking a customer-focused (DaCfA) activity (RO4).

**Customer Requirements (TT) Keyword Grouping Summary**
Percentage Corroboration (Ñ) = 62,., and the highest corroborated cases are Case B and Case G with a (Ñ) at 83%.

Common themes within this Keyword Grouping are the lack of customer and supplier identification with TT7 observed at 86% and the lack of formal agreements in place to describe the service being provided, TT13 at 86%. TT7 (Supply-chain) was visible in Case C (Case Study C, p. 7) that did not identify any Key Customers until the Supplier Matrix was applied which identified the gaps.

**Customer Requirements Summary**
To summarise, the workshop participants have a positive view of the usability and effectiveness of the Customer Requirements Grouping (Customer, Supplier and Relationship Matrices) of the model, with a combined Mean of these three Matrices of 4.24 (see Table 5-3 (p. 116), Table 5-7, p. 131 and Appendix G). The three matrices (Table 5-7) returned means of 4.52 (Customer Matrix), 4.26 (Supplier Matrix) and 4.10 (Relationship Matrix), with a range of only 0.42 range across the three matrices.
Case D rated the Customer and Supplier matrices at the highest. Case G rated the Customer Matrix at 3.32, but returned the positive comment that the Matrix “outlined the organisation in such a clear chart”. Case F recorded the lowest rating for the Supplier Matrix, which can be attributed to the non-identification of key Suppliers recognised during the Relationship activity, and which positively impacted upon the rating (5.00) - the highest return by Case F.

Looking across the cases, Table 5-8, below the suite of matrices is perceived to be more usable and efficient within organisations that are Integrated with their Customers; that have a Physical Product; that have an Emerging Service Culture; that have scored greater than 200 points in a Business Excellence activity and is best facilitated in a 1-2-1 situation. This again leads to Recommendation 1 (Chapter 8, pp. 186-187) which is concerned with the value-adding application of the DaCfA Toolset matrices and templates in certain profiled organisations.

Furthermore, with regards to facilitation there is only a 5% difference in ratings in favour of the Researcher. The maximum difference occurs with the Supplier Matrix where there is a 13% difference (3.88 verses 4.35). This suggests that the effectiveness of the Customer Requirement Matrices is not prejudiced by the facilitation of the Researcher.

<table>
<thead>
<tr>
<th>Continua</th>
<th>Descriptor</th>
<th>Integrated (C,D)</th>
<th>5.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Interaction</td>
<td>Remote (E,F,G,H)</td>
<td>3.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integrated (C,D)</td>
<td></td>
<td>5.12</td>
</tr>
<tr>
<td>Product Type</td>
<td>Virtual (F,G)</td>
<td>3.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical (C,D,E,H)</td>
<td></td>
<td>4.46</td>
</tr>
<tr>
<td>Service Culture</td>
<td>Emerging (D,E)</td>
<td>4.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Established (C,F,G,H)</td>
<td></td>
<td>4.20</td>
</tr>
<tr>
<td>Business Excellence</td>
<td>No Score (C,D,E,H)</td>
<td>4.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;200 Points (F,G)</td>
<td></td>
<td>4.75</td>
</tr>
<tr>
<td>Group Size</td>
<td>1-2-1(D,E,F)</td>
<td>4.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greater than 2 (C,G,H)</td>
<td></td>
<td>4.25</td>
</tr>
</tbody>
</table>

Table 5-8: Continua/Cross-case Context Customer Requirements Grouping Instrument. Source: Author.
As to relating these findings to the literature, all of the Theoretical Themes (TT7, 8, 9, 13, 14 & 23) associated with the Customer Requirements Suite of Matrices were observed throughout the case studies, and there appears to be little correlation to the position an organisation sits on the OC Profile tool and the Theoretical Themes that are observed. However, this is to be recommended for further research Recommendation 6 (Chapter 8, p. 190).

It has been established that, as the matrices have been tested inside and outside the Case X environment, and on internal and external supply-chains, the DaCfA Suite of Customer Requirements matrices is appropriate to all types of organisations (RO1, RO2 and RO3). Furthermore, there is strong evidence that these findings agree with the literature regarding the themes to be addressed within organisations initiating a Customer-focused (DaCfA) activity (RO4).

**Controls**

The Controls DaCfA Toolset consists of the Agreement Template, Controls Template and Risk Mitigation Template. The templates were applied to one (Case H), three (Cases C, F and H) and two (Cases F and H) cases respectively.

Feedback regarding the effectiveness and usability of these artefacts was collected via completed instruments from the respondents who attended the various workshops. The data from the various instruments is summarised in Tables 5-3, p. 116; Table 5-6, p. 120; Table 5-9, p. 140 and Table 5-10, p. 141 as well as in Appendix G (Table As and Table Bs). The Statements posed with the instruments can be found at Appendix I. Data regarding the Theoretical Themes is taken from Tables 5-1, p. 113 and 5-2, p. 114 above.

As before the analysis is carried out vertically to determine the usability and effectiveness of each template, and horizontally across the cases to determine which statements within the instruments receive the highest or lowest support and in the context of the Cross-case Matrix, to understand if workshop participants believe the templates are more usable and effective within any particular organisation type.

**Agreements Template**

i. **Vertically through the Case Studies**

There was only one formal response for the Agreements artefact, from Case H (Tables 5-3, p. 116 and A5 of Appendix G). However, a note within Case F, Case Study Write-Up identifies that Case F had addressed agreements, for example charters, SLAs or contracts in its Controls Template. This is fed into Recommendation 3 (Chapter 8, p. 188) concerned with the tailoring of the DaCfA Toolset.
Case H rated the Agreements matrices at 4.40 and supported this rating with the comment that “it was only used once, it would be useful to use this more in the future”. Applying the various Customer Requirement Matrices and Agreement Template, Case H identified that it only had one formal agreement in place with Suppliers, which was for the High Speed Migration activity, where there were two key attributes to be delivered. Furthermore, application of the Agreement Template identified that no formal (or informal) measures had been identified to measure this service delivery. This is a strong indication of TT12, articulating that not all agreements have adequate measures in place to quantify the effectiveness of that agreement.

ii. Horizontally across the Case Studies
Statement 1 at 3.50 receives the lowest rating. This rating is concerned with the improved understanding of the agreements established with Customer/Suppliers. Statement 3, discussing the agreements is a worthwhile activity and Statement 5 “overall how useful applying the agreement template to your organisation has been” both rated a strong positive 5.00. Statement 5 was supported by the comment Case H (p. 8) that applying the Agreement Template “gave a very simple structure to formulate the requirements of both services delivered and received”.

iii. In the Cross-case (Instrument Return) Context
This element could not be addressed due to only one set of returns being received from a single case, Case F.

iv. Cross-case (TT Observation) Context
Utilising Table 5-1, p. 113 when reviewing in the context of the Cross-case Matrix for TTs, although only Case H undertook the use of the Agreement Template, observations were made by the four reviewers which has indicates that the only area where there is no suggestion that the Agreement associated TTs (including TT12) being observed is Company Perspective Privately-Owned. This descriptor Group consists of Case B and Case E and it is believed that this lack of observation is caused though absence of narrative regarding agreements within the case study write-ups rather than there being no issue.

Agreements Template Summary
Reviewed in either the horizontal or vertical context the mean value returned by the instrument feedback is 4.40, a positive indication of the usefulness of the Template to the responders.

Due to there being only one case responder to the DaCfA instrument it is impracticable to comment in the context of the Cross-case from an Instrument return context.

However when reviewing the Cross-case Matrix in the context of TTs, there is an indication (Cross-case Matrix Output, p. 23) that organisations describing themselves as “Privately Owned” are less
likely to have issues concerning the placement of agreements with Customers/Suppliers than those that believe that they operate in the public sector or not for profit manner. Although this summary is based upon the evidence gathered during this research, the two cases (Case B and Case E) that describe themselves as privately owned did not apply the agreement template and therefore absence of commentary within the case study write-ups does not imply a positive observation.

Case F (p. 8) covered its agreements in the Controls Template context. This is identified as an item for further work, assessing the feasibility for combining the Controls and Agreements Templates. Recommendation 3 (Chapter 8, p. 188).

Although there were no specific TTs associated to the application of the Agreement Template, TT12 showed a strong indication regarding the lack of measures associated to agreements (Case H, p. 22). Furthermore this was a clear indication in Case E and Case G.

The Template was tested inside the Case X scenario and being an internally focused Supply-Chain, this confirms that the Agreement aspect of the Controls part of the DaCfA Model is appropriate to these types of organisations and addresses these aspects fully and beneficially RO1.

As there is strong evidence of the presence of TTs; for example TT12 associated with the Agreement Template and therefore supports the previous data captured in Case Xa and the supporting Literature Themes that can be readily observed with organisations initiating a Customer-focused (DaCfA) activity (RO4).

**Controls Template**

i. Vertically through the Case Studies

The Controls Template of the DaCfA Toolset received feedback from three groups of workshop participants (Cases C, F and H). The Controls Mean Value; Table 5-3, p. 116, and Appendix G Table A6 is 4.80, which is a positive rating. Of the three cases that provided feedback, Case F rated the highest at 5.20. Through the application of the Controls Template Case F initially identified nine controls from the application of the Supplier and Customer matrices. (Case F, p. 8) identified agreements and controls in the same context. The nine initial controls identified were reduced to seven when it became apparent, through the application of this Template, that two of the controls Terms of Reference (for events) and Event Flyers, were applied in both contexts of the customer and supplier and with a slight adjustment to formatting could be one and the same. Each of the identified controls described suitable associated measures, which were later expressed in detail using the Measurement Template.
Case H rated the Template the lowest of the cases that provided feedback, but still at a respectable 4.40, and acknowledged that they “did not initially understand what was meant by controls”. Through the application of this Template, the identification of specific controls became easy and the articulation of those controls has driven what has been described (Case H, p.8) as “one of the largest improvement pieces of work”. Through the application and questioning resulting from the application of Control Template processes and procedures were identified that had not been reviewed since the 1990s or in some cases there are no written guidelines for certain practices.

Furthermore, of the 10 controls identified by Case H, nine were owned by parties outside of the Case H business area, this is a clear articulation of TT10, which states that a “high proportion of controls are not owned by the business area that applies the control”. Of the 10 controls, 50% had no formal or informal measure in place, which is evidence of TT11 and will be covered within the Measurement Section below.

Case C rated the Template at 4.80, and identified 11 controls, the application of this Template made it easy to identify that five of the controls (45%) had no form of measurement in place, (p.24) and supporting evidence for TT11 found that none of the controls were owned by Case C, further supporting TT10. Furthermore, although Case D did not formally complete and respond accordingly with respect to the Control Template, its initially populated the Template which identified 21 controls with only one being owned by Case D, TT10; there were 15 controls without any formal measures Case D ( p. 7) TT11. There was also no description of how Case D had applied activities to achieve the described purpose Case D (p. 7) and this is associated with TT2 and TT3, likewise Case G shows no evidence of how the Mission/Vision of being a “partner of choice for local authorities” was being realised as customers had been categorised as supportive LAs and non-supportive LAs, with no evidence of action to turn non-supportive into supportive LAs TT2 and TT3.

ii. Horizontally across the Case Studies
There has been limited use of the Control Templates, but slightly more than that for the Agreement Template. The Statement Mean realised 4.80 with Statement 3 realising 5.00; this is concerned with applying the Template improving the understanding of the controls in place. None of the cases rated a statement below 4.00 and across the five statements the mean range was only at 0.33, which confirms constancy of answers.

iii. In the Cross-case (Instrument Return) Context
Although not all of the continua descriptions could be populated, there is some indication regarding diversities. The largest, although insignificant mean differences occur in the continua Product Type; Business Excellence Rating and Group Size (facilitation style), but at only 11%, caused by Case F being a sole input into the continua descriptors.
From the three responses recorded the following can be deduced from Table B6 (Appendix G); the controls toolset is better received in organisations that are either *remote* or *integrated* with their Customer; have a *Virtual* Product Type; operate with an *Established* Service Culture; have undertaken a Business Excellence activity and attained a rating of *greater than 200 points* and is facilitated in a 1-2-1 situation.

When comparing facilitator ratings, once again there is little separating the two with mean ratings at 5.00 (Researcher) and 4.40 (Independent), realising a 17% difference, which is largest gap attained; it is believed that the rating for Case H, did not fully match the comments regarding the “uncovering of the largest improvement activity concerned with out-of-date and non-existent processes and procedures”, which appears to be rated quite low when compared to the narrative description, and does not conform to a test of construct validity as described by Bryman & Bell (2007, p. 165); Robson (2011, pp. 87-88) and (Yin, 2011, pp. 78-79).

### iv. Cross-case (TT Observation) Context

Although there is no strong indication (Appendix J and the Cross-case Matrix output), of the three Theoretical Themes that are associated with the Control Templates (TTs 2, 3, 10) the following statements apply.

Within the Service Type continuum there is an indication that the themes do not materialise within the *Hard Service* provision descriptors. This is an indication for further research in this area and is covered by Recommendation 2 (Chapter 8, pp. 187-188).

Reviewing the Cross-case Matrix output, Appendix J, for the Customer-facing continuum there are with no indication of the TTs visible in Group 2 (Cases A and E) *Both Internal and External*. And minor indications within the other groupings.

With regards to the continuum for Customer Base (Cross-case Matrix output p. 17), there are no indications of the associated TTs within Group 1 (Cases B and E), *less than 15 customers* with indication in Groups 2 and Group 3.

Finally (Cross-case Matrix output p. 23) Company Perspective there are no indications with the *Privately-owned/Operated* description (Group 3) compared to minor indications within the other groups.

What has been presented above are signs of correlation, rather than strong indication of presence. However this does provide for further research within this area and leads to Recommendation 2 (Chapter 8, pp. 187-188) which is the call for further research into the correlation of the Theoretical Themes and the position an organisation sits on the Organisational Continuum Profile Tool.
Controls Template Summary

Reviewing in either the horizontal or vertical context the mean values for the Controls Template equate to 4.80, providing a positive indication towards the template from workshop participants.

The strongest rating of the Template came from Case F at 5.20 with Case H rating the lowest at 4.40. Case H commented that it initially “did not understand, what was meant by controls” and in the Case Study Write-Up claimed that the application of the Control Template, Case H (p. 8) has “driven one of the largest pieces of improvement work”, which does not fully align with the rating given.

Reviewed in the context of the Cross-case scenario, the highest rated continua at 5.20 are Product Type Virtual; Business Excellence Rating greater than 200 points and Group Size (facilitation style) 1-2-1, all heavily influenced by Case F which had given the highest rating.

There is no evidence to prove that the facilitation of the research has influenced the outcome of the workshops as there is only a 0.50 difference separating the mean ratings of the two forms of facilitation.

In the context of the observed TTs, good evidence has been presented of TTs 2, 3 and 10, together with TT11 from the Measurement element of the DaCiA Model leading back to the previous activities and supported by the literature findings.

With an instrument Mean of 4.80 and positive comments from within the Case Studies there is a positive opinion towards the Controls Template, and as this template has been tested inside and outside the Case X environment, as well as the internal and external Supply-Chain. This confirms that the Control aspect of the DaCiA Toolset (and Model) is appropriate to all types of organisations and addresses the aspects of RO1, RO2 and RO3 completely.

With strong evidence towards the presence of TTs associated with the Control Template, this research supports the previous findings and the literature associated to the Theoretical Themes, for organisations undertaking a Customer-focused activity RO4.

There has also been a subject for further research concerned with the correlation of the Theoretical Themes and the position an organisation sits on the Organisational Continuum Profile Tool. Recommendation 2 (Chapter 8, pp. 187-188).
**Risk Mitigation Template**

**i. Vertically through the Case Studies**

Referring once again to Table 5-3, p. 116 and Appendix G (Table A7), the combined Mean for the two cases (Case F and H) that responded to the DaCfA Instrument associated to Risk Mitigation realised 4.63. The highest case rating was Case F at 4.83 through the application of the Customer and Supplier Matrices four risks were identified, these risks were processed into the Risk Mitigation Template and a risk score was applied, the risks identified were reduced to two that required further work. The described risks had been socialised but not previously mitigated and this is a description of TT20. These risks were associated with a follow-up process and a process for capturing testimonials.

Case H at 4.42 mean value stated that the Template “highlighted significance more clearly”. It identified seven risks that had not clearly been articulated or captured prior to the application of the Risk Mitigation Template. Case H stated in the Case Study Write-Up that the Template enabled Case H to “be proactive in the approach to planning and budgeting”. They also expressed that an “unexpected by-product of applying the matrix has been opportunities for personal development” as this has “taken team members into new areas never experienced previously”. The risks identified required long-term planning to mitigate and prevent these issues materialising within the next 1-5 years.

Although not responded upon formally through the application of the Customer/Supplier and Risk artefacts Case D, identified 41 risks (Case D, pp. 25-31) 23 to Customers, and 17 associated to Suppliers and one allocated to both Customer/Supplier – “Student Dissatisfaction”.

**ii. Horizontally across the Case Studies**

Statement 5, was concerned with the extent “risk been considered by the organisation”, received the highest rating, which gives an indication that the organisation had previously addressed risk. However, the application of this Template enabled the organisation’s risks, identified during the application of the Customer, Supplier and Relationship Matrices to be mitigated. The statement receiving the lowest rating was Statement 4 with a Mean of 3.50. This Statement was concerned with the “understanding of projected risk scores”, it was rated the lowest by both Cases that responded to the DaCfA Instrument.

The overall Statement Mean across the six Statements was 4.63, which demonstrates that the Template is regarded positively.

**iii. In the Cross-case (Instrument Return) Context**

With only two responses it would be impracticable to make any robust conclusions in this context. But with the limited response received, it is possible to give the following indications: The Risk Mitigation Template is perceived to work best in organisations that are Remote from their Customers;
have a *Virtual* Product; have an *Established* Service Culture; have a Business Excellence Rating of *greater than 200 points* and is facilitated in a 1-2-1 basis.

**iv. Cross-case (TT Observation) Context**

With TT20 only being observed within Case F, there were no significant observations made in the context of the Controls Suite of Templates on the Risk Mitigation Template during the Cross-case Matrix (Appendix J) comparison of reviewer observations.

**Risk Mitigation Template Summary**

When reviewed in either the Horizontal (4.63) or the Vertical (4.63) context the mean values were positive and therefore provides a strong indication that the Risk Mitigation Template is seen as a value-adding artefact by the workshop participants who provided feedback.

The Case rating the Template the highest was Case F at 4.83, with Case H rating at 4.42. Case H (p. 9) commented that the template enabled them to be “*Proactive in the approach to Planning and Budgeting*”.

Although, as previously mentioned, there were only two cases responding to the DaCfA Instrument, it is possible to outline the highest-rated continua descriptor is Product Type *Virtual* and Business Excellence *greater than 200 points* caused by the Case F being the sole case in those descriptors.

Reviewing in the facilitator context it is again claimed that the Researcher as a facilitator appears to have little or no influence over the case outcome as the independent facilitator rated cases which were of the same magnitude 4.83 (Researcher) verses 4.42 (Independent).

The presence of TT20 was observed in a single case, therefore providing linkage to the Theoretical Themes developed via previous activity (Case Xa) and the Literature Reviews.

With an Instrument Mean of 4.63, plus positive comments received from workshop participants, this is a strong positive opinion towards the Risk Mitigation Template and as it was tested both within and outside the Case X context as well as associated with the internal and external Supply Chain. This confirms that the Risk Mitigation aspects of the DaCfA Model is appropriate to all types of organisations RO1, RO2, RO3.

There is all good evidence regarding the presence of TTs associated with the Risk Mitigation Template (TT20) and therefore supporting RO4.
Controls (TT) Keyword Grouping Summary

The Controls Keyword Grouping was the lowest corroborated Keyword Grouping out of the four Keyword Groupings at Percentage Corroboration (25%) with a Strength of 61. Control TTs were observed the least across the seven cases with Cases A, B and E receiving no observations. However this is not an indication that there were no issues within these cases, just that they had not been articulated within the case study write-ups.

The themes within this Keyword Grouping are mainly concerned with line-of-sight to Mission and Vision statements; the lack of ownership of Controls within the various cases and the prevalence of risk (not mitigated) within the various cases. The Case receiving the highest observations within this Keyword Grouping is Case D at 75%. As an example of observed TTs, Case D (p. 6) identified 21 Controls where ownership was outside of the Case D business unit and the observation is associated to TT10.

Controls Summary

Returning once again to Tables 5-1, p. 113, Table 5-3, p. 116, Table 5-6, p. 120 and Appendix G as well as adding Tables 5-9 below and Table 5-10, p. 141 it is seen that the combined Mean Value of the three templates that constitute the Controls Grouping (Agreements Template, Controls Template and Risk Mitigation Template) is 4.61, a very favourable view.

Of the three cases to have returned instruments, Case F rated the highest at 5.02. With Case H responding to all three instruments and returning the lowest Mean at 4.41, but still above the threshold for acceptable, and Case C for a single artefact at 4.80.

<table>
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<tr>
<th></th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Mean</th>
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<td>5.02</td>
<td>-</td>
<td>4.41</td>
<td>4.61</td>
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</table>

Table 5-9: Mean Value of the Controls Grouping of DaCfA Artefacts. Source: Author.

There was only 0.40 separating the three DaCfA Control Grouping Templates with the Control Template rating a 4.80 Mean, with positive comment that “it’s application had initiated the largest improvement activity” (Case H, p. 8).

The Risk Mitigation Template received a (combined mean ) 4.63 rating from workshop participants the Template assisted in the “provision of a good articulation of issues in the form of a “score” and “description”, (Case F, p. 16).
The Agreements Template rated the lowest, but still 4.40 accompanied by the comment that the artefact “provided a simple structure to formulate requirements of both services delivered and received”. (Case H, p. 8).

Referring to Table 5-10 below, the rating of the artefacts in the context of the Cross-case, the following narrative is associated to respondent feedback. The Control Suite of templates is perceived to add value in organisations that are Integrated with their Customer; have a Virtual Product; have an Established Service Culture; have attained a Business Excellence score greater than 200 points and are facilitated in on a 1-2-1 basis.

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<tr>
<th>Continua</th>
<th>Descriptor</th>
<th>Rating</th>
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</thead>
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<tr>
<td></td>
<td>Integrated (C,D)</td>
<td>4.80</td>
</tr>
<tr>
<td>Product Type</td>
<td>Virtual (F,G)</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td>Physical (C,D,E,H)</td>
<td>4.47</td>
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<tr>
<td>Service Culture</td>
<td>Emerging (D,E)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Established (C,F,G,H)</td>
<td>4.61</td>
</tr>
<tr>
<td>Business Excellence</td>
<td>No Score (C,D,E,H)</td>
<td>4.47</td>
</tr>
<tr>
<td></td>
<td>&gt;200 Points (F,G)</td>
<td>5.00</td>
</tr>
<tr>
<td>Group Size</td>
<td>1-2-1 (D,E,F)</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td>Greater than 2 (C,G,H)</td>
<td>4.47</td>
</tr>
</tbody>
</table>

Table 5-10: Continua/Cross-case Context Controls Grouping Instrument. Source: Author.

Furthermore, there is little difference (12%) between the case facilitated by the Researcher and those by an Independent with the Researcher’s case mean at 4.94 and the Independent Facilitator at 4.41. This provides further evidence that the Researcher has had little (if any) influence over the perceived value of the Control aspect of the DaCfA Model. This gives an indication between the value of the DaCfA Model and an organisation’s OC Profile, and leads to Recommendation 1 (Chapter 8, pp. 186-187) concerned with the application of the DaCfA Toolset matrices and templates in certain profiled organisations.

The set of Theoretical Themes associated to the suite of Control Templates TT2, 3, 10 and 20 have been observed within the Case Studies with examples of those observations illustrated within each of the particular Case Study Write-Up. In the context of the Cross-Case Matrix there has been some indication of correlation between the position of an organisation on the OC Profile Tool and TTs observed. This indication has further supported Recommendation 2 (Chapter 8, pp. 187-188) concerned with the correlation of the Theoretical Themes and the position an organisation sits on the Organisational Continuum Profile Tool.
Evidence has been presented that the suite of control aspect templates has been tested both inside and outside the Case X environment as well as the internal and external Supply-Chain, this confirms that the DaCfA Suite of Control artefacts is appropriate for all types of organisations and addresses the aspects of RO1, RO2 and RO3 completely.

Furthermore, strong evidence has been presented, with illustrated examples of the observations of Theoretical Themes with the Case Studies as described in the context of the Control Suite of artefacts and therefore this research supports previous findings, as well as literature regarding these themes. RO4.

**Measurement**

The Measurement Element of the DaCfA Model consists of a single template applied to six of the Cases (C-H). Feedback from workshop participants regarding the effectiveness of the tool was captured via a DaCfA Toolset Instrument (Appendix I) and detailed at Appendix G (Table A8 and Table B8) with Mean values captured in Tables 5-3, p. 116 and Table 5-6, p. 120.

This Section describes the outcome of the analysis of the DaCfA Measurement Template. Analysis is, as with other templates within the DaCfA Model, carried out in the Vertical (through the case studies) and Horizontal (across the suite of case studies), as well as within the context of the Cross-case Matrix to gain an understanding of the workshop participants perception if the Template performs more effectively with one form of organisation compared to another.

**Measurement Template**

i. **Vertically through the Case Studies**

The Mean Value (Table 5-3, p. 116) across the six cases is 4.55 which is a positive indication.

Case D rated the Template at 6.00, the highest rating available stating that it (Case D, p. 9) “proved to be the most valuable element of the Model” and correlates with the research findings that applying the Measurement Template assisted the organisations to apply a more focussed approach to Measurement within the Supply-chain as it will help to provide a link between all aspects of the DaCfA Model by the Means of linking the Measures of the various DaCfA artefacts together, as well as the identification of a balanced suite of appropriate Measures.

Prior to applying the Measurement Template (Case D, p. 6) had 35 measures in operation, through the application of the Template these were reduced by 52% to 17. This provides strong evidence of TT18 (Organisation’s describe vast suites of measures) but through the application of the Measurement Template, duplicate measures were identified and removed, it also assisted in the identification of those measures that were described but not being actively captured; and others that were poorly
described. These descriptors of deficient measurement identified within Case D, also applied to (Case F, p. 7) that initially had 22 measures identified and through the application of the Measurement Template reduced these by 41% to 13, which led to a balance Suite of leading/lagging hard/soft measures. (Case F, p. 16) illustrates how these measures can be set into three groupings as three high level KPIs. Finance (three measures) website performance (five measures) and Key Business Indicators (consisting of the five measures identified during the application of the Purpose Template (Customer Satisfaction; Customer Retention; New Members; Income and Expenditure)

Case E identified only one measure of output, Grass Quality (by colour, thickness and abundance), all of which were visually collected but could lead to an indication of potential sugar content, and an further example of TT19 regarding poor articulation of metrics; there also appears to be a lack of translation of the measure into action to improve the item being measured, (Case E, p. 6) which is an indication of TT4. Case E rated the template at 4.40. Other examples are (Case B, p. 7) and (Case H, p. 3) where the description of the initial measures were more outlined concepts rather than fully-defined metrics. Of the ill-described measures this is an articulation of TT19 where the description of the measure, was improved by the application of the Measurement Template and ensuring that all 10 boxes of the Measurement Template have been articulated (Chapter 4 Figure 4-12, p. 108 and Table 4-1 pp. 109-110).

There was very little evidence of the measures associated with the attainment of the Mission/Vision set by (Case G, p. 8) related to the action to establish these as a “provider of choice for Local Authorities”. This is articulation of TT17, regarding Mission attainment. Case G had originally been utilising four process measures, but evidence presented in (Case G, p. 7) suggests that these high level measures appeared to have little, if any data captured and no evidence of being acted upon TT21. There was a lack of measurement awareness within (Case G, p. 23) to and of the Principles of Measurement. There was also a lack of understanding concerning the construct of measurement, and this reveals TT22 regarding the understanding of Hard and Soft Measurement.

Case H rated the Template the lowest at 3.75 and commented that they were “still gathering data to tell what measures were telling”. Furthermore, they confessed that “getting the right measures was difficult”. Reviewing the (Case H, p. 15) Agreements Template, it can be identified that the agreement did not have any measures allocated to it (TT12).

Case D, (pp. 32-33) had over 75% of agreements (and controls TT11) without measures. The same applies to controls for (Case A, p. 9) with no measures to confirm the achievement of the Audit Charter. In (Case C, p. 8) of the 11 Controls identified none had any measures associated to them. Case C rated the Measurement Template as a positive 4.40.
ii. Horizontally across the Case Studies
The Mean returns of the seven statements posed is 4.49, with Statements 1 and 2 gaining the highest mean at 5.00 concerned with the understanding the Template conveyed with regard to the organisation’s measures and how well those measures were described; which support the claim that applying the Template added value to the organisation. Referring to Appendix G Table A8, the lowest rated Statement 5 (but still above the acceptable threshold) at 3.75 is concerned with the allocation of the measures to service delivery and receipt.

Of all the cases to respond, the lowest rated Statement is Statement 4 for Case H at 2.00. This Statement is concerned with the understanding of Measures within the Business Unit, Case H had declared that “getting the right measures is difficult” and that they are still “gathering data”. The Mean of the other five cases to respond was 4.60 which indicates the poor rating is associated to Case H rather than systemic across all Cases.

iii. In the Cross-case (Instrument Return) Context
Reviewing Table 5-6, p. 120 and Appendix G (Table B8), it can be established that the continuum with the largest percentage difference Mean is Group Size (Facilitation Style) at 24% in favour of the 1-2-1 activity yielding better results than running the Template in a Group Session, with the 1-2-1 descriptor Mean at 5.10. The Service Culture (Emerging) at 5.20, 21% difference followed with Customer Interaction (Integrated) very closely behind at 21% with a 5.20 rating. Then, followed by Product Type and Business Excellence at 6% differences. Therefore from the respondent returns, the Measurement Template is described as operating more effectively in organisations that are Integrated with their Customer (5.20); have a Physical Product Type (4.64); have an Emerging Service Culture (5.20); have not undertaken a Business Excellence Activity (4.64); and is facilitated on a 1-2-1 basis (5.10).

The above descriptor gives an indication between the value of the DaCfA Toolset/Model and the position of an organisations sits on the OC Profile, and leads to Recommendation 1 (Chapter 8, pp. 186-187) concerning the perceived value-added application of the DaCfA Toolset in certain profiled organisation.

The Cases not facilitated by the Researcher rated of 3.75. Whereas rating of those facilitated by the Researcher was 4.72, which is a significant 20% difference. However, this is highly influenced by Case D rating 6.00, and it should also be noted that Case G, facilitated by the Researcher, returned a 3.66 which is only 3% difference on Mean ratings to the Independent facilitated cases.

iv. Cross-case (TT Observation) Context
There were no significant observations made in the context of the Measurement Template and the Cross-case Matrix (Appendix J).
**Measurement (TT) Keyword Grouping Summary**

Comprehensive measurement suites appear to be rare and within the cases none are an exception to this statement. Evidence is presented that there is an abundance of over-measurement and that Case D and F when the DaCfA Measurement artefact was applied enabled those cases to greatly reduce the amount of measurement taking place.

Case G carried the highest number of observations at 88% with the strength of observation at 79.

Also observed was a lack of focused measurement to provide evidence of the attainment of Mission/Vision statements. Within the Measurement Grouping, TT4 was observed the most at a rate of 71%.

TT18 (Measurement) is evident in a number of cases. Case F identified 22 measures in operation. After the application of the Measurement Template this was reduced to 13 or a 41% reduction Case F (p. 7).

Examples have been articulated regarding the successful observation of TTs associated to the Measurement Template, and as the examples were from outside of Case X environment and also in the external supply-chain context, these examples shall be tabled as further evidence towards the attainment of RO2 and RO3.

**Measurement Summary**

When reviewed (Appendix G Table A8) in both the Vertical (4.55) and Horizontal (4.49) context the mean values were both well above the 3.50 threshold. The case rating the Measurement Template the highest is Case D at 6.00 stating it “proved to be the most valuable element of the Model” evidence shows that it reduced its suite measures by 41% after the application of the Measurement Template.

Case H rated the Instrument the lowest (3.75) stating the “defining the right measures is difficult”. In the context of the Cross-case Matrix the highest rated continua were Customer Interaction Integrated and Service Culture Emerging, both at 5.20. The lowest rated continuum was Group Size (Facilitation Style) Greater than 2 at 4.00.

The Researcher facilitated cases yielded 20% difference to those of the independently facilitated cases. This was caused by the Case H rating. However when reviewing against the lowest Researcher facilitator Case this yielded only a 3% difference with Case G realising 3.86.

With an Instrument Mean of 4.55 and positive comment and referenced Case Study evidence there is a positive opinion towards the Measurement Template and as this Template was tested both inside and outside of the Case X environment as well as the internal/external Supply-chain, this confirms
that the measurement aspect of the DaCfA Model is appropriate in all types of organisations and therefore addresses the aspects of RO1, RO2 and RO3 completely and beneficially.

In the context of the Theoretical Themes there has been strong evidence provided of the presence of all of the Measurements associated TTs 4, 11, 12, 17, 18, 19 and 21, thus providing a link from this research to the themes described from the literature and Pilot (Case Xa), to the Measurement aspect of the DaCfA Model. Therefore this research supports the literature reasoning that the Themes that can be readily observed within organisations embarking on a Customer-Focused activity RO4.

**DaCfA Model Context Summary**

From the analysis discussed above it can be seen that each of the four aspects of the DaCfA Model: Purpose, Customer Requirements, Controls and Measurement, have received varying degrees of positive support. If viewed on a case by case basis, there have been up to 91 Instrument Returns from six Cases (C-H), with multi submissions from Cases C (2), G (8) and F (5) being calculated as mean values. This resulted in 33 (Grouped) Instrument returns which formed the basis for the analysis above.

Of the 33 Instruments, three or 9% rated a particular Matrix below the Threshold of Acceptability (3.50). Of these three, the lowest rated was the Supplier Matrix by Case F at 2.4. It is the Researcher’s view that the main cause of this low rating was that a number of key Suppliers were not identified when the Supplier Matrix activity was undertaken. The missing Suppliers were identified during the Relationship Matrix activity and, as a consequence, Case F rated the Relationship Matrix at 5.00 the highest of all workshop participants for this matrix and rated the Supplier Matrix much less positively.

Case E rated the Relationship Matrix at 3.20, below the acceptable threshold. The purpose of the Relationship Matrix is to map services delivered with services received, but Case E delivers only one service (Grazing) and receives just one Service (Maintenance) therefore it is possible that the position of Case E is taken from a non-value adding perspective as the Matrix could be perceived as being “over-the-top” for an organisation the size of Case E. To further pursue this idea, tailoring of the DaCfA Toolset will form part of Recommendation 3 (Chapter 8, p. 188).

Case G rated the Customer Matrix at 3.32. However it commented that it “outlined the organisation in such a clear chart”. Case G submitted eight responses for each DaCfA Instrument, for the Customer Matrix each of the eight statements showed a range in the responses of four or five revealing an inconsistency of opinion towards the Matrix. However, regarding “how useful applying the tool has been to the organisation” the Mean response from Case G was 4.00.
To summarise the views of the Case Study organisations about the model and its matrices, Figure 5-1 below, pictorially displays the overall Mean response for each of the DaCfA Model elements, and shows a Quasi-statistical Mean for the entire Toolset of 4.52, a positive rating.

The purpose element Mean of 4.64 is high and is supported by positive comments such as its application “facilitated our alignment to our company strategy/goals”, (Case H, p. 8). The Customer Requirements element mean is 4.29, again with positive supporting comments such as that it “outlined the organisation in such a clear chart”, (Case G, p. 39) and for the Supplier Matrix that it was “Interesting to see how Suppliers and Services linked”, (Case C, p. 10). The Controls Element mean 4.61, was associated with positive comments that the risk Mitigation Template assisted in “Highlighting the significance more clearly” (Case H, p. 29). The Measurement Template mean of 4.55 was supported by comments such that this element “Proved to be the most valuable element of the Model”, (Case D, p. 46).

<table>
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<th>DaCfA Element</th>
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<td>Measurement</td>
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<td>Appendix G Table A8.</td>
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<tr>
<td><strong>Quasi-statistical Mean</strong></td>
<td><strong>4.52</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5-11: Data for the population of Figure 5-1. Source: Author.

Figure 5-1 shows that each of the toolsets that address the various aspects of the DaCfA Model (Purpose; Customer Requirements; Controls and Measurements elements) are all above the acceptable threshold set of 3.50. There is therefore, evidence, based upon the case study write-ups and the DaCfA Instrument Returns, that the Toolset is usable and effective.
Furthermore, as illustrated by Table 5-12, below, the workshop participants described the Model as working more effectively in organisations that are *Integrated* with their Customer; that provide a *Physical* Product; that have an *Emerging* Service Culture; that have *undertaken* a Business Excellence Activity and where the DaCfA Toolset is applied on a *1-2-1* basis. This indication leads to the suggestion of the need for further research associated with the nature of organisations, as described by the OC profile and the perceived usability and effectiveness of the DaCfA Model/Toolset, Recommendation 1 (Chapter 8, p. 186-187).

<table>
<thead>
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</thead>
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<tr>
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<tr>
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<td>Established (C,F,G,H)</td>
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<td>&gt;200 Points (F,G)</td>
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<tr>
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<td>Greater than 2 (C,G,H)</td>
<td>4.34</td>
</tr>
</tbody>
</table>

Table 5-12: Continua/Cross-case Context All DaCfA Artefact Instruments. Source: Author.

Moreover, all 23 of the Theoretical Themes derived from the literature and Pilot (Case Xa) have been observed within the Case Studies, at various strengths of observation, by the four Reviewers. However there is less evidence of a pattern between the profile of an Organisation (using the OC Profile Tool) and the type of theme being observed, and this will need further research - Recommendation 2 (Chapter 8, pp. 187-188).

**Triangulation Of Instrument Data**

The next phase of analysis is to understand the usability and effectiveness of the DaCfA Toolset from three different perspectives:

I. The Overall Activity (all workshop participants);
II. The Team Leader Viewpoint (1 instrument x number of Team Leaders); and
III. The Facilitator Viewpoint (1 instrument per Case Study).

**Overall Activity Instrument**

The purpose of the Overall Instrument was to generate data from the workshop participants that could be triangulated against other data points associated with the DaCfA Toolset Instruments and Team
Leader Instruments. The Overall Activity Instrument consists of four statements (Appendix I). This analysis utilises Tables A9 and B9 of Appendix G.

i. Vertical View through the Case Study

Viewing in the vertical context shows a Case Mean of 5.07; well above the acceptable threshold rating for the Overall Activity.

The highest rated case is Case D with a Case Mean of 6.00, and comments regarding the overall application of the DaCfA Toolset that it “Helps clarity; Needed a bit of help to identify full benefits from the tool”, (Case D, p. 47).

Returning the lowest overall mean value of 4.25 was (Case G, p. 46). The combined individual instruments yielded a mean of 3.69 for Case G and this indicates that its overall perception of the DaCfA Toolset and activity when taken in this context, proves more favourable towards the toolset than when questioned in an instrument by instrument case. Case G commented that … “it was interesting to hear colleagues’ thoughts” with others describing the workshop activities as “the exercise was useful” or a “very useful session”.

Case E showed a Case Mean of 4.48, when compared to their combined individual instruments mean of 3.90. No comments were made to clarify its rating. But it is a positive indication that the overall instrument rated higher.

Cases F (p. 37) returned a mean value of 5.00 and describes the activity as “very useful, but labour intensive activity, well worth the effort”.

Case C (p. 34) described the DaCfA Toolset as a “wonderful tool that helped the understanding of service delivery”; the individual statement mean yielded 4.92; whereas the overall activity instrument yielded 5.60, again a very positive indication of the usefulness and effectiveness of the toolset.

Case H returned mean value of 4.75, and identified a number of comments (Case H, p. 32):

- “it was the most useful activity that I have undertaken”;
- “...the (DaCfA) tool is useful as a working document to help focus you and the team on what we should be doing, for whom and how you can approve”;
- “overall the activity output helps me visualise where I sit verses customers, suppliers etc.”;
- and
- “happy to have participated”.
ii. Horizontal View across the Individual Statements
The statement that rated highest was Statement 4 which asks “...how likely are you to recommend this type of activity to others” at 5.25. Statement 1, concerned the extent to which “completing the suite of matrices led to a better understanding of the organisation”, rated the lowest at 4.83, but still highly positive.

iii. In the Cross-case Context
Referring to Table 5-12, p. 148, when viewing the returned instruments in the context of the OC Profile for the Overall Activity Instrument the narrative can be articulated as follows (Red line): the activity is perceived as performing better with those units which are Integrated with their Customer; have a Physical Product; operate within an Emerging Service Culture who have Not Undertaken a Business Excellence activity and would be best delivered if the activity is undertaken in as a 1-2-1 Exercise. This leads to the recommendation for further research in to the perception of the usability of the DaCfA Model/Toolset and the position and organisation sits on the OC Profile, Recommendation 1 (Chapter 8, pp. 186-187).

<table>
<thead>
<tr>
<th>Continuum</th>
<th>Descriptors</th>
<th>Mean</th>
<th>Range</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
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<td>0.75</td>
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<tr>
<td>Service Culture</td>
<td>Emerging (D,E)</td>
<td>5.40</td>
<td>0.50</td>
<td>4.90</td>
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<td>Established (C,F,G,H)</td>
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<tr>
<td>Business Excellence Rating</td>
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<td>0.75</td>
<td>4.63</td>
<td>1.50</td>
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<td></td>
<td>&gt;200 Points (F,G)</td>
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<td></td>
</tr>
<tr>
<td>Group Size (Facilitation Style)</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Overall Activity Conclusion Context
The Case Mean returned 5.07; positive and above the set acceptable threshold, this was coupled with a number of very positive comments from the workshop attendees towards the DaCfA suite of Template and Matrices.

The DaCfA Toolset is primarily concerned with capturing what practices are currently in place and identifying the perceived adequacy (or otherwise) of those arrangements. In a number of instances
the workshops identified different ways of undertaking an activity or identifying an issue, which until the application of the DaCfA Toolset had remained hidden for example:

- Case A, where the Audit Charter was unknown to members of the Audit Team;
- Case B, clarity of Customer, Supplier and Stakeholder;
- Case C, identification of key Customers from Stakeholder Plans;
- Case D, over measurement;
- Case E, stability of agreements;
- Case F, with risks identified concerning a lack of controls;
- Case G, where there appeared to be two approaches to key Customers (supportive and non-supportive LAs); and
- Case H, identification of obsolete or out-of-date controls.

Summarising the above, and as testing has taken place within and outside the Case X scenario together with the application for both the internal and external Supply-chain, this Instrument Review is claimed as supporting evidence towards the attainment of RO1, RO2 and RO3.

**Team Leader Instrument**

The purpose of the Team Leader Instrument was to generate and capture data from the workshop sponsors’, and triangulate this against other instrument data points as detailed in Table 5-3, p. 116 above. The Team Leader Instrument consisted of six statements (Appendix I). This review utilises Tables A10 and B10 from Appendix G.

**i. Vertical View through the Case Study**

The combined Mean for the Team Leader Instrument returns a yield of 5.57.

From an individual case perspective’ Team Leaders for Cases C and D rated at 6.00, with a comment from (Case C, p. 11) that “... not aware it could cover such detail and be so useful, Excellent”. The lowest response was from the Case E Team Lead who rated the overall experience with 5.00, but still positive and well above the acceptable threshold.

Case F Team Leader rated the activity at 5.50, which is higher than the Overall Rating Instrument from workshop participants which returned at 5.00. At the conclusion of the activity the Case F Team Lead commented that they found the exercise “very thought provoking and informative” (Case F, p. 10).

The Case H Team Leader rated the activity at 5.7 and added comments that, (Case H, p. 33) “This whole activity has enabled us to gain control, improve our services and our reputation with both our
internal and external customers and stakeholders”. They continued that they “will use the matrices to help us continually monitor and improve what we do”.

**ii. Horizontal View across the Individual Statements**

The statement that rated the highest was Statement 1, “applying the Suite of Matrices I gained a better understanding of the team’s perceptions of the Organisation”, with a statement mean of 6.00. Team Leaders confirmed that they believe that applying the DaCfA toolset had been useful to their organisation, Statement 6 (how useful do you rate applying the tool was to your business) rated at mean 5.67. whereas Statement 2, “by applying the suite of Matrices I believe the team gained a better understanding of the Organisation”, was the lowest rated at 5.00.

**iii. In the Cross-case Context**

When reviewing in the context of Table 5-14, the following can be articulated as the views of the Team Leaders (Red line): the activity works better within an organisation who is Integrated with their Customer, have a Physical Product, operate within an Established Service Culture have Not Undertaken a Business Excellence activity and would work best if the activity is undertaken in as a Group Exercise. This will likewise be fed into Recommendation 1 (Chapter 8, pp. 186-187).

<table>
<thead>
<tr>
<th>Continuum</th>
<th>Descriptors</th>
<th>Customer Interaction</th>
<th>Product Type</th>
<th>Service Culture</th>
<th>Business Excellence Rating</th>
<th>Group Size (Facilitation Style)</th>
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<tr>
<td></td>
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<td></td>
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<td>1.50</td>
<td>6.00</td>
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<td>5.68</td>
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</table>

Table 5-14: Team Leader Perception of the DaCfA Toolset. Source: Author.

**Team Leader Conclusion Context**

Overall with a mean value returned at 5.57 it is concluded that the activity based upon the Team Leader Instrument returns, is deemed as highly successful to Team Leaders of the organisations. The mean response to Statement 6 “overall please rate how useful you believe applying the suite of Matrices to your organisation has been” rated 5.67 which edges towards the Extremely Useful rating.
Therefore due to the Case Studies covering both within and outside the Case X scenario together with the application for both the internal and external Supply-chain this Instrument Review is claimed as supporting evidence towards the attainment of RO1, RO2 and RO3.

**Facilitator Instrument**

The Facilitator Instrument consists of five statements Appendix I. This section utilises Tables A11 and B11 of Appendix G.

i. **Vertical View through the Case Study**

Within this context the Facilitators cover all eight cases and therefore injected into the Continuum context below are cases A and B. A mean of 5.55 was returned by the facilitators, a very positive 59% above the acceptable threshold.

A number of observations have been made by the facilitators regarding their view on how the activity progressed, and the positive context in which it sits:

- Case A, p. 13 “Helped to focus the customer survey and ruled out a number of stakeholder from the survey”;
- Case B, p. 19 “Helped to develop a better understanding of the customer base”;
- Case C, p. 25 “Helped to identify a key customer who had been initially forgotten”;
- Case D, p. 38 “Need the initial context setting of the toolset then became proficient in its use”;
- Case E, p. 20. “The DaCfA Toolset help in future state planning not just base-lining the as-is”;
- Case F, p. 28 “Helped to hone the suite of measures in place also greatly the identification of risk”;
- Case G, p. 37 “First time the team had been bought together to undertake such an activity, there were a wide-range of understanding within the team of 8”; and
- Case H, p. 23 “The whole activity increased individuals and team knowledge skills and approach to interacting with their customers and stakeholders. The completed matrices/templates also helped with other company activities relating to customer service. catalogues and service delivery, performance management, business continuity and risk management”.

ii. **Horizontal View across the Individual Statements**

The highest rating statement is Statement 5 with a mean of 6.00, concerning the “recommendation of the DaCfA methodology to one’s own team”, to which the answer is an emphatic yes. Observations made during the various workshops showed that not only did the organisation gain from scrubbing-down a number of practices in operation, but also individuals learned more about their own
organisation, for instance Case A, team members learned of the existence of their Audit Charter, which up to that point only a few were aware (Case A, p. 9).

iii. In the Cross-case Context
Following the Red line it could be inferred by the observations of the Facilitator: the activity works better with those who are Remote from their Customer, have a Virtual Product, operate within an Established Service Culture have Undertaken a Business Excellence activity and would work best if the activity is undertaken in a Group Exercise. Table 5-15.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>Descriptors</th>
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<th>Mean</th>
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<th>Mean</th>
<th>Range</th>
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<td>Greater than 2 (A,B,C,G,H)</td>
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<td></td>
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</tbody>
</table>

Table 5-15: Facilitator Perception of the DaCfA Toolset. Source: Author.

Facilitator Instrument Conclusion Context
Overall with a mean value returned at 5.57 it is concluded that the activity based upon the Facilitator Instrument returns, is deemed as highly successful to the participants and therefore due to the Case Studies covering both within and outside the Case X scenario, together with the application for both the internal and external Supply-chain, this Instrument Review is claimed as supporting evidence towards the attainment of RO1, RO2 and RO3.

General Conclusion Regarding the DaCfA Instrument Review
Building the case for the usability and effectiveness of the DaCfA Toolset, the Quasi-mean value of 4.52 from Figure 5-1 (p. 147) is a mean of all of the eight combined DaCfA Instruments for Cases C through to Case H, which, it is argued, establishes a case for the acceptance that the DaCfA Toolset has been tested within all environments described by the Research Objectives.
It is further argued that when the results from the Overall Activity Instrument Table 5-3, p. 116, with a Mean Value of 5.07 and the Team Leader Instrument at 5.57 are layered into Figure 5-2 below and a Quasi-mean value between these three results is calculated at 5.05 (See Table 5-16 below).

Drawing on the data presented in Chapter 4, concluded above and with reference to Tables 5-3, p. 116, Table 5-6, p. 120 and Table 5-16, the supportive comments raised regarding the application of the DaCfA Toolset both within and outside the Case X environment and internal as well as external supply-chain perspective together with the pictorial representation of the triangulation process illustrated in Figure 5-2 below; the combination of all these factors is final evidence of the attainment fully of RO1, RO2, and RO3.

<table>
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<th>Triangulation of Instruments</th>
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<th>Taken from…</th>
</tr>
</thead>
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<td>DaCfA Instruments</td>
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<td>Quasi-mean from Figure 5-1, p. 147.</td>
</tr>
<tr>
<td>Team Leader Instruments</td>
<td>5.57</td>
<td>Table 5-3, p. 116 and Appendix G Table A10.</td>
</tr>
<tr>
<td>Overall Activity Instruments</td>
<td>5.07</td>
<td>Table 5-3, p. 116 and Appendix G Table A9.</td>
</tr>
<tr>
<td>Facilitator Instrument</td>
<td>5.55</td>
<td>Table 5-3, p. 116 and Appendix G Table A11</td>
</tr>
<tr>
<td>Quasi-statistical Mean</td>
<td>5.05</td>
<td>Excluding facilitator returns</td>
</tr>
</tbody>
</table>

Table 5-16: Data for the population of Figure 5-2. Source: Author.

From the evidence presented in this Chapter, it is claimed that the research aim has been achieved; specific detail shall be argued in the context of each Research Objective, but as a generic claim the following is articulated.

When viewing the three overlays for the combined Individual (artefact) Instrument Returns, (Table 5-12, p. 148), the Overall Activity Instrument returns, (Table 5-13, p. 150), and the Team Leader Instrument returns, (Table 5-14, p. 152), plus the Facilitator returns, (Table 5-15, p. 154), there is no correlation to any of the continua descriptors where even on a single occasion all four instrument returns correspond.
Table 5-17: The Cross-case review associated with Figure 5-2. Source: Author.

Table 5-17, reviewed across the three user perspectives, that the DaCfA Toolset; Overall and Team Leader Instruments, it can be argued that the DaCfA Toolset will be adopted easily into an organisation that is Integrated with their Customer and deliver a Physical Product, with no other areas of consistency. Once the Facilitator Instrument is applied, there is not a consistent picture; but the values involved have small margins of difference mostly around 1.5% with the maximum difference being 13%. Therefore the differences are not seen as diverse enough to draw any robust conclusions and any description is purely an indication. Recommendation 1 (Chapter 8, pp. 185-186).

CHAPTER SUMMARY
Evidence has been presented within this Chapter that the research aim “To develop and validate an approach that will contribute to the field of relationship management”, delivered through four research objectives has been met.

The approach styled the Developing a Customer-Focused Approach (DaCfA Model and Toolset) was tested inside and outside the Case X environment, with evidence from case study write-ups, participant comments and participant DaCfA instrument returns (multi data sources) being triangulated to provide an overall acceptability statement and Quasi-statistical Mean concerning its usability and effectiveness.

The calculated arithmetic median (3.50) was used as the Threshold of Acceptability (Chapter 2, p. 36) rating for acceptable feedback from participants’ instrument returns. The data triangulation provides very positive evidence that the workshop participants who provided feedback have confirmed the usability and effectiveness of the DaCfA Model and Toolset this is summarised below:

- All instrument returns concerning the specific DaCfA Toolset Matrices and Templates associated to the DaCfA Model returned a Quasi-statistical Mean of 4.52, (Figure 5-1, p. 147) and
• All instrument returns addressing the DaCfA Toolset and the Overall and Team Leader instruments returned a Quasi-statistical Mean of 5.05, (Figure 5-2, p. 155).

Furthermore, evidence has been provided throughout this Chapter of the presence of the 23 Theoretical Themes, which can be readily observed within organisations initiating a Customer-focused Activity.

Finally the above shall be summarised and concluded within Chapter 6 to provide evidence that the research aim and objectives for this Research have been fully met in all aspects.
Chapter 6

Concluding Analysis In Relation To The Research Objectives

INTRODUCTION

This Chapter critically reviews the case study data, to develop the reader’s understanding of the achievement of the Research Aim and Research Objectives stated in Chapter 1, pp. 4-5. The analysis provides evidence that the DaCfA Model and Toolset items (matrices and templates) are an effective approach to assist organisations in internal supply-chain identification, RO1; including evidence of its applicability in organisations other than Case X, RO2; and in fields other than those associated solely with an internal supply-chain context, RO3. And, finally, the findings from this research are related to the relevant literature using a set of Theoretical Themes that were identified through Chapter 4 as readily observed within organisations initiating a Customer-focused activity, RO4.

CONCLUDING ANALYSIS IN RELATION TO THE RESEARCH OBJECTIVES

Research Objective 1

Research Objective 1 was to design, develop and test an approach to internal supply-chain identification (DaCfA) for application within the Case X environment. Chapter 1 provided evidence of the successful development of the DaCfA Toolset, what follows is a detailed concluding analysis of the Case X environment through Cases C and H\(^{18}\).

Table 6-1 details the combined means of the individual instruments from Cases C and H which provide an overall combined value of 4.48; positive evidence of the usability and effectiveness of the DaCfA Toolset to Case X.

\(^{18}\) The case study write-ups referenced within this Chapter do not form part of an annex to this thesis; however they are available upon request. Reference to Case page numbers are the page numbers as they appear within the case study write-ups.
Concluding Analysis In Relation To The Research Objectives

<table>
<thead>
<tr>
<th>DaCiF Toolset Templates and Matrices</th>
<th>Case</th>
<th>Purpose Template</th>
<th>Customer Matrix</th>
<th>Supplier Matrix</th>
<th>Relationship Matrix</th>
<th>Agreement Template</th>
<th>Control Template</th>
<th>Risk Template</th>
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<td>A6</td>
<td>A7</td>
<td>A8</td>
<td>4.48</td>
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</tbody>
</table>

Table 6-1: Individual Instrument Returns Case C and Case H for RO1. Source: Author.

**Individual Instruments**

**Purpose Statement Template**

Users found the Purpose Statement Template to be a useful activity, with a mean for the Template of 5.05 and written comments such as: the template “helped to develop a better understanding of service delivery and measurement through the Purpose discussions” (Case C, p. 26) and from the Case H, Team Leader “I was able to understand what the team thought was their purpose and how that aligned to the senior management viewpoint”, (Case H, p. 24). Moreover, there was evidence from (Case H, p. 2) that the Purpose Template provided the structure by which the “bigger picture” could be discussed within the team.

**Customer Matrix**

This matrix rated at a combined mean of 4.68 (Case C, p. 27) commented that the Customer Matrix enabled the “develop a full understanding of the services delivered and how measures and controls were conducted”. The Customer Matrix assisted Case C in the identification of 15 Customer Groupings and 17 Services that are offered to their customers.

Case H describes (Case H, p. 8), the application of the Customer Matrix as “helping different team members to understand the full remit of the teams work”; the case continues that through the application of the Customer Matrix “it became easy to see what services were delivered to whom”. Other advantages gained by Case H were the ability to prioritise the work and understand the associated issues and risks and subsequent mitigations required. Through the Customer Matrix Case H identified seven Customer Groupings and seven offered services.

**Supplier Matrix**

With a combined mean of 4.54, for the Supplier Matrix, (Case C, p. 28) stated that it was “interesting to see how the suppliers and services are linked”. Although not fully populated for Case C, the Supplier Matrix initially identified 29 Service Providers, supplying 18 Services.
Case H identified seven Service Providers (four of which were external to the organisation) supplying five Services. (Case H, p. 8) stated that, through the use of the Supply Matrix, they were able to “identify the dependencies on their suppliers”. This identified the importance of establishing SLAs with their Suppliers and Customers alike, as described by Weston (2003, p. 19) as the “most effective way of building a good strategic partnership and improving service delivery”.

**Relationship Matrix**

The Relationship Matrix was only completed by (Case H, p. 8) whom commented that “once they understood the services they deliver and to whom, and the dependencies they placed on certain suppliers, they realised the importance of monitoring the activities and assisted in identifying the measures required to understand the volume and priorities of their work”.

**Agreement Template**

Case H was the only case from all eight to utilise the Agreement Template and described the template at Case H, p. 8, “simple structure to formulate the requirements of both services delivered and received”.

**Controls Template**

The Controls Template received a combined mean of 4.65. Case C did not own any of the eleven controls it operated and, of those, five were found to have no formal method of data collection and measurement in place. This provided evidence of the manifestation of TT10 and TT11 within the case (Case C, p.8). This was not the same for Case H, who admitted that initially they did not understand what was meant by controls and the concept of controls was difficult to grasp. Of the seven controls identified, four were owned either by Case H or owned within their line management chain; none of these controls had leading measures in place as the only form of measurement identified was Audit (a lagging indicator). The output of the application of the Controls Template is now driving one of their largest pieces of improvement work as they have uncovered, through this focus, that a number of their local procedures have not been reviewed since the mid-1990’s and in some instances no written guidelines could be found, (Case H, p. 8).

**Risk Mitigation Template**

Case H is the only case within the Case X environment that utilised the Risk Mitigation Template; they commented that “it heightened the significance (of risk) more clearly”. (Case H, p. 29).

**Measurement Template**

The combined mean value realised 4.08. Case C utilised the template to articulate the six measures in operation (Case C, p. 8) which were well constructed in the context of the measurement template with

---

19 Controls equate as an example to process, procedures, work instructions, guidance notes.
evidence that the measures were being captured. Within Case H, the Measurement Template has not currently been fully utilised and measures are in a draft format; this may have impacted the mean case score of 3.75. There are no supplier metrics currently defined for Case H. They recognise that they are still gathering data to inform what measures they require; they acknowledge that “getting the right measures is difficult”. (Case H, p. 31).

**Individual Instruments Summary**

Drawing on the data presented in this Chapter, and with reference to Table 6-1, p. 159, the overall mean value for the combined instruments is 4.48 (from Table 6-1, p. 159). The combination of these two cases equates to a positive rating and therefore is evidence of the attainment of RO1.

**Overall Activity Instrument**

With reference to Table 6-2 below, the combined mean value of 5.18 shows a stronger position than that of the combined returns for the individual instruments at 4.48\(^{20}\); this is an increased score when the participants are asked to consider the activity as a whole, compared to the summation of all the individual instrument mean values. This can be attributed to the nature of the instrument. The individual instruments were asking detailed questions concerning the specific element of the DaCfA Toolset whilst the Overall instrument is aimed at the totality of the activity and the experience of the individual of that activity.

<table>
<thead>
<tr>
<th>Case</th>
<th>Overall Activity</th>
<th>Team Leader</th>
<th>Facilitator</th>
<th>Total Mean Summation of Individual Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>5.60</td>
<td>6.00</td>
<td>5.60</td>
<td>4.92</td>
</tr>
<tr>
<td>H</td>
<td>4.75</td>
<td>5.70</td>
<td>5.60</td>
<td>4.28</td>
</tr>
<tr>
<td>Combined Mean Value</td>
<td><strong>5.18</strong></td>
<td><strong>5.85</strong></td>
<td><strong>5.60</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 6-2: Other Instrument Returns, Case C and Case H. Source: Author.

In this context, (Case C, p. 34) described the DaCfA Toolset as a “wonderful tool that helped the understanding of service delivery”.

Participants contributed a number of comments, regarding the DaCfA activity (Case H, p. 32):

- “it was the most useful activity that I have undertaken”;
- “the (DaCfA) tool is useful as a working document to help focus you and the team on what we should be doing, for whom and how you can improve”;

\(^{20}\) Mean of values (A1 – A8) from Table 6-1, p. 159.
Concluding Analysis In Relation To The Research Objectives

- “overall the activity output helps me visualise where I sit versus customers, suppliers etc.”;
- and
- “happy to have participated”.

Overall Activity Instruments Summary
Drawing on the data presented in this Chapter, and with reference to Table 6-3, p. 164 the Overall Instrument combined mean of 5.18 and the positive comments made in response to the application of the toolset provides evidence that the DaCfA Toolset has been found acceptable in its use to these two cases that sit within the Case X environment, and this is therefore further evidence of the attainment of RO1.

Team Leader Instrument
The Case Mean for the overall Team Leader Instrument combined mean value of 5.85 from Table 6-2, p. 161 shows an even stronger position than those of the combined returns for the Individual Instruments at 4.48 (Table 6-1, p. 159) and the Overall Activity Instrument at 5.18. In this context it is the sponsor of the activity, the Team Leader, who is determining whether the activity and, in particular the DaCfA Toolset, has been of value to the business unit.

The Case C Team Leader, commented (Case C, p. 35), that they were: “not aware it would cover such detail and be so useful”.

The Case H Team Leader commented (Case H, p. 33): “This whole activity has enabled us to gain control, improve our services and our reputation with both our internal and external customers and stakeholders”. They continued that they: “will use the matrices to help us continually monitor and improve what we do”.

Team Leader Instruments Summary
With a combined mean of 5.85 and positive comments regarding the application of the DaCfA Toolset, it has been found acceptable for use within the Case X environment. It therefore contributes as evidence for the attainment of RO1.

Facilitator Instrument
Referring to Table 6-2, p. 161, the two facilitators both rated the usefulness to Cases C and H at 5.60. The facilitator of (Case C, p. 25) noted that the activity had “helped to identify a key customer who had been initially forgotten”; whereas the (Case H, p. 23) facilitator commented that the activity “triggered good open discussions and enabled team members to learn from one another. The whole
activity increased individual’s and team knowledge skills and approach to interacting with their customers and stakeholders”.

This provides further evidence that the DaCfA Toolset has been found acceptable in its use to these two cases that sit within the Case X environment. The combination of these two cases equates to 5.60 rating (Table 6-2, p. 161) and therefore is evidence of the attainment of RO1.

**General Conclusion Regarding the Instrument Review and the attainment of RO1**

Building the case for the attainment of Research Objective 1, the 4.48 return is derived as a mean of all of the eight combined DaCfA Instruments (A1-A8 Table 6-1, p. 159) for Case C and Case H, which it is argued, establishes a case for the acceptance that the DaCfA Toolset has been tested within the Case X environment.

It is further argued that, when the results from the Overall Activity Instrument (Table 6-2, p. 161) with a mean value of 5.18 and the Team Leader Instrument (Table 6-2, p. 161) at 5.85 are layered into Figure 6-1, p. 164 and a mean value between these three results is undertaken, this provides a Quasi-statistical mean of 5.17.

Drawing on the data presented in Chapter 5, concluded above and with reference to Tables 6-1 and 6-2, the supportive comments raised regarding the application of the DaCfA Toolset within the Case X environment and the pictorial representation of the triangulation process as described in Chapter 2, pp. 52-54 and illustrated in Figure 6-1, p. 164, the combination of these factors is evidence for the claim of the attainment and therefore the successful delivery of Research Objective RO1.

<table>
<thead>
<tr>
<th>Triangulation of Instruments</th>
<th>Rating</th>
<th>Taken from…</th>
</tr>
</thead>
<tbody>
<tr>
<td>DaCfA Instruments</td>
<td>4.48</td>
<td>Table 6-1, p. 159.</td>
</tr>
<tr>
<td>Team Leader</td>
<td>5.85</td>
<td>Table 6-2, p. 161.</td>
</tr>
<tr>
<td>Overall Activity</td>
<td>5.18</td>
<td>Table 6-2, p. 161.</td>
</tr>
<tr>
<td>Facilitation</td>
<td>5.60</td>
<td>Table 6-2, p. 161. Not used in triangulation calculation.</td>
</tr>
<tr>
<td>Quasi-statistical Mean</td>
<td><strong>5.17</strong></td>
<td>Excluding facilitator returns</td>
</tr>
</tbody>
</table>

Table 6-3: Data for the population of Figure 6-1. Source: Author.
Concluding Analysis In Relation To The Research Objectives

Research Objective 2

Research Objective 2 is concerned with testing the DaCfA Toolset outside of the Case X environment. The following is a detailed conclusion in that context through Cases D, E, F and G as the claim for RO2.

Table 6-4, below details the combined mean values of the individual instruments from Cases D, E, F and Case G which provides an overall combined value of 4.56; positive evidence of the usability and effectiveness of the DaCfA Toolset outside the Case X environment.

<table>
<thead>
<tr>
<th>Case</th>
<th>Purpose Template</th>
<th>Customer Matrix</th>
<th>Supplier Matrix</th>
<th>Relationship Matrix</th>
<th>Agreement Template</th>
<th>Control Template</th>
<th>Risk Template</th>
<th>Measurement Template</th>
<th>Total Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>4.80</td>
<td>6.00</td>
<td>6.00</td>
<td>4.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6.00</td>
</tr>
<tr>
<td>E</td>
<td>4.00</td>
<td>4.10</td>
<td>3.80</td>
<td>3.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.00</td>
</tr>
<tr>
<td>F</td>
<td>5.20</td>
<td>4.35</td>
<td>2.40</td>
<td>5.00</td>
<td>-</td>
<td>5.20</td>
<td>4.83</td>
<td>-</td>
<td>4.90</td>
</tr>
<tr>
<td>G</td>
<td>3.75</td>
<td>3.32</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.00</td>
</tr>
<tr>
<td>Over-</td>
<td>Mean Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6-4: Individual Instrument Returns Cases D, E, F and G. Source: Author.

**Individual Instruments**

Referring to Table 6-4, above.

**Purpose Template**

The Purpose Template realised a combined mean value of 4.44 and was completed by all of the cases in the RO2 context. (Case G, p. 38) commented that it “Highlighted the fact that the team could do..."
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with more training in certain areas of the business to better support our customer’s needs”. The application of the Purpose Template identified (Case G, p. 25) ‘Pastoral Care’ as a key attribute to the fulfilment of their purpose. This concept, although understood, had not been implemented. The development of the Pastoral Care Process was one of ten recommendations identified to (Case G, p. 36) as an outcome of the application of the DaCfA Toolset.

Customer Matrix
The Customer Matrix realised a combined mean of 4.44, (Case D, p.20) identified 9 customer groups being provided with 15 services. Case G identified 15 customer groups with eight services provided, then commented that the Customer Matrix “outlined the organisation in such a clear chart”. (Case G, p. 39).

Of the other cases the number of customers and service groups varied. Case E identified two customer groups and two service groupings whereas Case F identified 10 customer groupings and 10 service groupings. In all cases none had difficulty completing the Customer Matrix.

Supplier Matrix
The Supplier Matrix rated slightly lower than the previous two matrices with a combined mean for this grouping of 4.07. Within this context, Cases D, E and F completed Supplier Matrices. Case D, p. 41 identified 18 Suppliers that provided 24 services during this activity and commented, “Identifying supplier context was more complicated than initially thought”. Case E (Case E, p. 17) identified a single supplier providing two services, ‘general maintenance’ and ‘hay cutting’; applying the Supplier Matrix used in this context could be seen as excessive and has led to Recommendation 3 (Chapter 8, pp. 187) concerned with the tailoring of the DaCfA approach. Case F identified, (Case F, p. 20) 11 service providers, supplying 10. Case F had difficulty with this matrix as they had not identified all of their key suppliers, this became evident during the application of the Relationship Matrix.

Relationship Matrix
With a combined mean value at 4.13, boosted by the Case F rating; during the application of the Relationship Matrix, (Case F, p. 16), identified that a number of their key suppliers were missing from the Supplier Matrix, enabling them to refocus the Supplier Matrix onto their prime suppliers.

Agreement Template
None of the cases in this study applied the Agreement Template, although agreements were captured, for example an SLA, but they were described on the Controls Template (Case F, p. 13). A review of the agreement/control template is the subject of Recommendation 3 (Chapter 8, p. 187) listed for further work.
Controls Template
The only case to formally complete the template (in this context) and to respond to the instrument was Case F, who identified seven controls with the requirement to describe two extra controls as mitigation against two identified risks. Although not fully applied, Case D gathered data on controls and identified that none of the controls in operation were owned by Case D (Case D, p. 7).

Risk Mitigation Template
Within Case F, (Case F, p. 23) was the only case to complete the Risk Mitigation Template, which was applied to mitigate against the risk of two missing controls described as the follow-up process and the method by which they determine the value of the products they deliver.

Measurement Template
With a combined mean of 4.83 the Measurement Template has received a very positive rating. Through the application of the Measurement Template, Case F initially identified 22 measures in operation, but after the application of the Measurement Template these were reduced to 13 or a 41% reduction (Case F, p. 7). Case D (Case D, p. 6) initially identified 35 measures, which after application of the template was reduced to 17 separate measures which equates to a 52% reduction; the (Case D, p. 46) Team Leader commented that the Measurement Template “Proved the most valuable element of the model”. The enabler, in Cases D and F to reduce by such a large percentage was that a number of the ‘measures’ were either duplicated or not required. The application of the template at Cases D and F initially described measures as TT18 (…organisations describe vast suites of measures…). Case G (Case G, p. 11) identified four measures, but after the application of the Purpose Template and the Customer Matrix, an additional six measures were identified. Case E operated a single measure, which was concerned with ‘grass quality’.

Individual Instruments Summary
Drawing on the data presented in this Chapter, concluded above and with reference to Table 6-4, p. 164, the overall mean value for the combined instruments is 4.56. The combination of these four cases equates to a positive rating and therefore is evidence of the attainment of RO2.

Overall Activity Instrument
With reference to Table 6-5, p. 167, the combined mean value for the Overall Activity Instrument in this context is 5.01, which shows an increase on the mean when compared to the Individual Instrument return at 4.56.

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21 Mean of values (A1 – A8) from Table 6-4, p. 164.
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<table>
<thead>
<tr>
<th>Case</th>
<th>Overall Activity</th>
<th>Team Leader</th>
<th>Facilitator</th>
<th>Total Mean Summation of Individual Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>6.00</td>
<td>6.00</td>
<td>5.20</td>
<td>5.40</td>
</tr>
<tr>
<td>E</td>
<td>4.80</td>
<td>5.00</td>
<td>5.20</td>
<td>3.90</td>
</tr>
<tr>
<td>F</td>
<td>5.00</td>
<td>5.50</td>
<td>5.80</td>
<td>4.55</td>
</tr>
<tr>
<td>G</td>
<td>4.25</td>
<td>5.20</td>
<td>5.80</td>
<td>3.69</td>
</tr>
<tr>
<td>Combined Mean Value</td>
<td>5.01</td>
<td>5.43</td>
<td>5.53</td>
<td>4.56</td>
</tr>
</tbody>
</table>

Table 6-5: Other Instrument Returns Case D, E, F and G. Source: Author.

Case D (Case D, p. 47) commented that the DaCfA Toolset “Helps clarity” and suggested that it “maybe undertaken as a team event”. (Case F, pp. 1-3) describes it as a “very useful, but labour intensive, activity”. Whilst (Case G, p. 46) described the workshop activities as “the exercise was useful”; whilst others described it as a “very useful session”.

Overall Activity Instruments Summary

Drawing on the data presented within this Chapter, and with reference to Table 6-5, the Overall Instrument combined mean of 5.01 and the positive comments made in response to the application of the toolset, provides evidence that the DaCfA Model and Toolset has been found acceptable in its use to these four cases that sit external to the Case X environment, and therefore provide further evidence of the attainment of RO2.

Team Leader Instrument

The combined mean value, taken from Table 6-5, for the Team Leader Instrument equates to 5.43, which shows a strong positive position from the Team Leaders regarding the application of the DaCfA Toolset. It has been found acceptable for use in cases external to the Case X environment; it therefore contributes as positive evidence for the attainment of RO2.

Facilitator Instrument

The Facilitator Table 6-5 rated each of the six cases between 5.20 and 5.80, resulting in a combined mean of 5.53 coupled with comments that the application of the Toolset identified different areas of benefit to the various cases. Within Case A it helped to focus the customer survey and ruled out a number of stakeholders who would have otherwise been unnecessarily involved in the survey (Case A, p.7). At Case B, it helped facilitate a better understanding of the customer base (Case B, p. 6). Within Case D, a high degree of repeated measures were identified (Case D, p. 8). Case E used the toolset for future planning (Case E, p. 10). Case F benefitted from both the identification of risk
(Case Study F, p. 13) and the identification of over-specified measures (Case F, p. 13). Case G profited from the structure of setting appropriate measures (Case G, p. 10) as well as the identification of loss of mission realisation concerning the context of customer relationship *Partner of Choice* goal (supportive/non-supportive LAs).

**General Conclusion Regarding the Instrument Review and the Attainment of RO2**

Building the case for the attainment of Research Objective 2, the 4.56 return is derived as a Mean of all of the eight combined DaCfA Instruments (A1-A8, Table 6-4, p. 1654 for Cases D, E, F and G, which, it is argued, establishes a case for the acceptance that the DaCfA Toolset has been tested externally to the Case X environment.

It is further argued that, when the results from the Overall Activity Instrument (Table 6-5, p. 167) with a mean value of 5.01 and the Team Leader Instrument (Table 6-5) at 5.43 are layered into Figure 6-2 below and a mean value between these three results is undertaken, this provides a Quasi-statistical mean of 5.00.

<table>
<thead>
<tr>
<th>Triangulation of Instruments</th>
<th>Rating</th>
<th>Taken from…</th>
</tr>
</thead>
<tbody>
<tr>
<td>DaCfA Instruments</td>
<td>4.56</td>
<td>Table 6-4, p. 164.</td>
</tr>
<tr>
<td>Team Leader</td>
<td>5.43</td>
<td>Table 6-5, p. 167.</td>
</tr>
<tr>
<td>Overall Activity</td>
<td>5.01</td>
<td>Table 6-5, p. 167.</td>
</tr>
<tr>
<td>Facilitation</td>
<td>5.53</td>
<td>Table 6-5, p. 167.</td>
</tr>
<tr>
<td>Quasi-statistical Mean</td>
<td>5.00</td>
<td>Excluding facilitator returns</td>
</tr>
</tbody>
</table>

Table 6-6: Data for the population of Figure 6-2. Source: Author.

![Figure 6-2: Instrument Triangulation Results for Cases Outside the Case X Environment, RO2. Source: Author.](image)

Drawing on the data presented and concluded above and with reference to Tables 6-4, p. 164, Table 6-5, p. 167, and Table 6-6, above, the supportive comments raised regarding the application of the DaCfA Toolset outside the Case X environment and the pictorial representation of the triangulation...
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process as described in Chapter 3 and illustrated in Figure 6-2, p. 168, the combination of these factors is evidence for the claim of the attainment and therefore the successful delivery of RO2.

**Research Objective 3**

Research Objective 3 is concerned with testing the DaCfA Toolset in fields other than those associated solely in an Internal Supply-chain Context. Figure 6-3 identifies those organisations that have self-assessed themselves as being either entirely internally or externally faced or a combination of both. In the context of RO3, cases which have self-assessed as 2 or greater shall be incorporated into RO3. The following cases are so categorised: Cases D, E, F, G and H and, for Facilitator Instruments only, Cases A and B.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>Lower End Descriptor</th>
<th>Scale</th>
<th>Upper End Descriptor</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Facing</td>
<td>Internal</td>
<td>C</td>
<td>A</td>
<td>H</td>
</tr>
</tbody>
</table>

Figure 6-3: Customer Facing Extract from the Organisational Continuum Profile. Source: Author.

As the same data used to conclude RO1 and RO2 is utilised for RO3 it would be unproductive to regurgitate the same evidence, therefore RO3 will be addressed by a simple analytical overview of the combined case data.

Table 6-7 below, returns a combined mean value of 4.45, which is slightly lower than those reported previously against RO1 (4.48) and RO2 (4.56).

<table>
<thead>
<tr>
<th>Case</th>
<th>Purpose Template</th>
<th>Customer Matrix</th>
<th>Supplier Matrix</th>
<th>Relationship Matrix</th>
<th>Agreement Template</th>
<th>Control Template</th>
<th>Risk Template</th>
<th>Measurement Template</th>
<th>Total Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>4.80</td>
<td>6.00</td>
<td>6.00</td>
<td>4.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6.00</td>
</tr>
<tr>
<td>E</td>
<td>4.00</td>
<td>4.10</td>
<td>3.80</td>
<td>3.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.40</td>
</tr>
<tr>
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<td>5.20</td>
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<td>2.40</td>
<td>5.00</td>
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<td>5.20</td>
<td>4.83</td>
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</tr>
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<td>G</td>
<td>3.75</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>H</td>
<td>5.00</td>
<td>4.25</td>
<td>3.88</td>
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<td>4.40</td>
<td>4.50</td>
<td>4.42</td>
<td>3.75</td>
<td>4.28</td>
</tr>
</tbody>
</table>

Table 6-7: Individual Instrument Returns External Supply-chain Cases D, E, F, G and H. Source: Author.

In Table 6-8 , p. 170, the returns show no significant difference for the Overall Activity at 4.96, Team Leader response at 5.48 and the Facilitator response at 5.54 when compared to RO1 and RO2.
Concluding Analysis In Relation To The Research Objectives

<table>
<thead>
<tr>
<th>Case</th>
<th>Overall Activity</th>
<th>Team Leader</th>
<th>Facilitator</th>
<th>Total Mean Summation of Individual Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5.40</td>
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<td>5.00</td>
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<td>3.90</td>
</tr>
<tr>
<td>F</td>
<td>5.00</td>
<td>5.50</td>
<td>5.80</td>
<td>4.55</td>
</tr>
<tr>
<td>G</td>
<td>4.25</td>
<td>5.20</td>
<td>5.80</td>
<td>3.69</td>
</tr>
<tr>
<td>H</td>
<td>4.75</td>
<td>5.70</td>
<td>5.60</td>
<td>4.28</td>
</tr>
<tr>
<td>Combined Mean Value</td>
<td>4.96</td>
<td>5.48</td>
<td>5.54</td>
<td><strong>4.45</strong></td>
</tr>
</tbody>
</table>

Table 6-8: Other Instrument Returns External Supply-chain All Cases. Source: Author.

Building the case for the attainment of Research Objective 3, the 4.45 return is derived as a mean of the eight combined DaCfA Instruments for Cases D, E, F, G and H which, it is argued, establishes a case for the acceptance that the DaCfA Toolset has been tested in the external supply-chain environment.

It is further argued that, when the results from the Overall Activity Instrument Table 6-9, below with a mean value of 4.96 and the Team Leader Instrument Table 6-8 at 5.48 are layered into Figure 6-4 and a mean value between these three results is undertaken, this provides a Quasi-statistical mean of 4.96, providing a very positive indication of the usability and effectiveness of the DaCfA Model/Toolset.

<table>
<thead>
<tr>
<th>Triangulation of Instruments</th>
<th>Rating</th>
<th>Taken from…</th>
</tr>
</thead>
<tbody>
<tr>
<td>DaCfA Instruments</td>
<td>4.45</td>
<td>Table 6-7, p. 169.</td>
</tr>
<tr>
<td>Team Leader</td>
<td>5.48</td>
<td>Table 6-8, p. 170.</td>
</tr>
<tr>
<td>Overall Activity</td>
<td>4.96</td>
<td>Table 6-8, p. 170.</td>
</tr>
<tr>
<td>Facilitation</td>
<td>5.54</td>
<td>Table 6-8, p. 170. <strong>Not used in triangulation calculation.</strong></td>
</tr>
<tr>
<td>Quasi-statistical Mean</td>
<td><strong>4.96</strong></td>
<td><em>Excluding facilitator returns.</em></td>
</tr>
</tbody>
</table>

Table 6-9: Data for the population of Figure 6-4. Source: Author.


Concluding Analysis In Relation To The Research Objectives

Drawing on the data presented in this Chapter, concluded above and with reference to Tables 6-7, p. 169, Table 6-8, p. 170 and Table 6-9, p. 170, the supportive comments raised and that the Cases discussed sit within the external supply-chain environment as indicated by Figure 6-4, above. The combination of these factors is evidence for the claim of the attainment and therefore the successful delivery of Research Objective RO3.

Research Objective 4

Research Objective 4 is concerned with the identification of a set of Theoretical Themes that can be readily observed within organisations initiating a Customer-Focused activity.

As described in Chapter 1, the Theoretical Themes were developed during Pilot (Case Xa) activity within Case X, coupled with the Literature Review, which culminated in the description of 23 Theoretical Themes mainly in a negative context. All 23 Theoretical Themes have been observed within the research case studies in either a singular or corroborated22 observation leading, to the delivery of RO4, Chapter 5, Table 5-2, p. 114 provides detail.

The observation of the Theoretical Themes were captured in two contexts as ‘Percentage’ (Ã) and ‘Strength’ (Ñ). The Theme Analysis section within Chapter 3, pp. 43-46 describes the process for the review of the case study write-ups and supporting documentation.

From Table 5-2, Chapter 5, p. 114, it is determined that there are 23 Theoretical Themes available for observation in each Case Study, which for convenience, and consistency are assigned into four keyword groupings: Purpose (containing Mission/Vision and Communication Themes); Customer

22 Two or more of the reviewers have viewed the same theme within the same case study.
Concluding Analysis In Relation To The Research Objectives

Requirements (containing Supply-chain Themes); Controls (containing Control and Risk Themes) and Measurement (containing Measurement Themes).

**Keyword Grouping**

Working from the Chapter 5, Table 5-2, p. 114, there are 161 potential occurrences (23x7) of observing a TT. Applying the algorithms (Chapter 2, p. 47) the Percentage (Ñ) and Strength (Ã) are generated, resulting in the following data set:

- **Purpose**: 34% with a Strength of 60;
- **Customer Requirements**: 62% with a Strength of 58;
- **Controls**: 25% with a Strength of 61; and
- **Measurement**: 43% with a Strength of 65.

This is shown pictorially in Figure 6-5a and 6-5b below.

Figure 6-5a provides evidence of the observations of the TTs associated to the four Keyword Groups, Customer Requirements was viewed the highest at 62%, which indicates that organisations have difficulty in understanding who their customers/suppliers are. The lowest observed Keyword Group was Controls at 25%, indicating that organisations are better at establishing procedures than they are identifying their customer.

![DaCfA Keyword Grouping in Descending Order](image)

When re-arranged by an indication of Strength (Ñ) Figure 6-5b, Measurement shows the highest at 65, indicating that when a TT is observed regarding Measurement it is clearly articulated for the reviewers to readily observe.
Summary of Keyword Groupings Association to Cases

Utilising Table 5-2, Chapter 5, p. 114, together Table 5-1, Chapter 5, p. 113, the following generic observations can be made, in simple terms the higher the percentage the weaker the Case may be in that area. Strength is concerned with the confidence of the observation, the higher the score the more reviewers have observed it.

Within the suite of Case Studies there is a regular presence of TTs that show a strong indication towards Keyword Groups Customer Requirements and Measurement. The TTs were set in the negative context therefore the less observations of a TT Keyword Group the potentially ‘better’ an organisation is in that area. If set in a neutral construct, this will also allow positive observations to be recorded. This is the theme of Recommendation 4 (Chapter 8, p. 187).

Case A
Seventeen TTs were observed in Case A, Table 5-1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, eight in a singular context and nine in a corroborated context, but with no corroborated observations within the Controls Keyword. This does not imply they have the better practices in place, merely that the TTs were not evident in the narrative of the Case Study Write-Up. One of the key themes uncovered within Case A was associated with communication; TT5 showed where the Audit Charter had not been cascaded through the business to the Audit Team, but had been communication to Stakeholders and Customers before the charter had become known to the team. The corroborated TTs equated to a Percentage Corroboration (Ñ) of 39% and a Strength (Ã) of 56. The highest rated Keyword Grouping for Case A was Customer Requirements at 60%, and the lowest was at Controls with no corroborated observations.

Case B
Sixteen TTs were observed in Case B, Table 5-1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, seven in a singular context and nine in a corroborated context, and like Case A with no corroborated observations within the Controls Keyword. As for Case A, this does not imply they have the better practices in place, merely that the TTs were not evident in the narrative of the case study write-up. The corroborated TTs equated to a Percentage Corroboration (Ñ) of 39% and a Strength (Ã) of 53. The ServQual activity conducted in Case B as part of this research identified two service quality gaps in the context of Communication and Service Delivery. The highest rated Keyword Grouping for Case B was Customer Requirements at 83%, and the lowest was Controls with no corroborated observations.

Case C
With fifteen TTs observed in Case C, Table 5-1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, seven in a singular context and eight in a corroborated context. Within Case C all Keyword Groupings have received an observation of a corroborated TT. The corroborated TTs equated to a Percentage
Concluding Analysis In Relation To The Research Objectives

Corroboration ($\bar{N}$) of 35% and a Strength ($\bar{A}$) of 66. The theme of control ownership was raised within this Case C where all 11 of the Controls identified were not owned by Case C, and five of those controls having no measures associated with them. The highest rated Keyword Grouping for Case C was Customer Requirements at 67%, and the lowest was Purpose at 20%.

**Case D**

With nineteen TTs observed in Case D, Table 5 -1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, four in a singular context and 15 in a corroborated context, all Keyword Groupings have received an observation of a corroborated TT. The corroborated TTs equated to a Percentage Corroboration ($\bar{N}$) of 65% and a Strength ($\bar{A}$) of 57 and Case D was the second highest case regarding observations of TT, 40% higher than the third placed case. The observation of the TTs within the case narrative does give an indication that the practices in place are not as robust as Case D may have thought. Measurement was a key theme within Case D with 35 measures being captured in the Customer and Supplier Matrices, which through the application of the Measurement Template were hone to 17 measures a reduction of over 51%. The highest rated Keyword Grouping for Case D was Controls at 75%, and the lowest was Purpose at 40%. Case D showed the highest percentage within the Controls Keyword Grouping, and therefore thought the data provided in the case study write-ups is the weakest in this area out of all of the Case Studies.

**Case E**

With ten TTs observed in Case E, Table 5 -1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, five in both singular context and five in a corroborated context. Like Case A and Case B there were no corroborated TTs within the Controls Keyword Groupings, in the case of Case E there were also no singular TTs observed. The corroborated TTs equated to a Percentage Corroboration ($\bar{N}$) of 22% and a Strength ($\bar{A}$) of 60, which equates to the lowest corroborated case (along with Case F) on Percentage Corroboration ($\bar{N}$). This should not imply that Case E has better practices in place, merely that the TTs were not evident in the narrative of the Case Study Write-Up. The highest rated Keyword Grouping for Case E was Customer Requirements at 67%, and the lowest was Controls with no corroborated observations.

The strongest showing TT within was TT12 with all four reviewers observing this TT. This was evident as the contracts established with both customer and supplier were word of mouth and agreed on the “shake of a hand”.

**Case F**

With seventeen TTs being observed in Case F, Table 5 -1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, twelve in a singular context and five in a corroborated context, all Keyword Groupings have received an observation of a corroborated TT. The corroborated TTs equated to a Percentage Corroboration ($\bar{N}$) of 22% and a Strength ($\bar{A}$) of 50. By the use of the term lowest corroborated case,
this is not to imply that the Case F has the weakest practices in place, it means that it is the Case Study with the least viewed TTs, and with 22 of the 23 TTs set in the negative context, it could actually imply that the Case F has the strongest practices in place, although it would not be correct to argue that point either. The highest rated Keyword Grouping for Case F was Customer Requirements at 33%, and the lowest was Measurement at 13%.

Case F is the only case to receive a corroborated observation regarding TT20 (risk)\textsuperscript{23}, an underlying theme in a number of the cases, but was seen as quite prevalent within Case F (Case Study F, p. 8), who identified and mitigated against two risks that were previously unidentified until the application of the DaCfA Toolset.

\textbf{Case G}

At 22 observed TTs for Case G, Table 5 -1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114, four are in a singular and 18 in a corroborated observation, with only TT9 not being observed. TT9 is concerned with the supply-chain and the Supplier Matrix activity was not undertaken as part of that workshop therefore it is not a surprise that TT9 was not observed. The corroborated TTs equated to a Percentage Corroboration (Ñ) of 78% and a Strength (Ã) of 72, which equates to the top case in both Percentage Corroboration (Ñ) and Strength (Ã). The highest rated Keyword Grouping for Case G was Measurement at 88%, and the lowest was Controls at 50%. Case G showed the highest percentage within the Purpose, Customer Requirements and Measurement Keyword Groupings, and therefore thought the data provided in the case study write-ups is the weakest in these areas out of all of the Case Studies as the TTs are set in a negative context therefore a high observation would equate to a weak application of the area associated to the particular TT (Recommendation 4, Chapter 8, p. 189).

The common theme viewed in various contexts was that of becoming a “\textit{partner of choice}” with LAs. Their Customer Matrix (Case G, p. 8) categorise LAs as Supportive and Non-Supportive, with no action to change a Non-supportive into a Supportive LA; this observation is associated to TT6\textsuperscript{24} (Purpose Keyword).

\textbf{Case H}

Although not part of the formal Reviewer Observation activity an indication of communications is evident from the expression within the Case Study Write-Up regarding the teams understanding of accountabilities and responsibilities. TT13 is visible with half of the customers having no description of the level of service they could expect from (Case H, p. 12).

\textsuperscript{23} Risks are described, but not mitigated.
\textsuperscript{24} Strategies…do not align to vision…
Case Summary
In summation it has been proven that the TTs are clearly visible within the Research Case Studies and have been corroborated as such with over 61% of the opportunities for observation of TTs being realised. This rises to 72% when the single observations are considered.

It can be argued that the clarity of the Case Study Write-Up would ultimately affect the observations made during the review of the Case Studies by the four Reviewers. It is believed that evidence has been argued which confirms in reviewing the Case Study observations it is shown that the Reviewers have viewed in a systematic manner and there appears to be no bias within the distribution of the data (Chapter 2, pp. 43-44).

What is evident within Case G is that there is clear correlation to practices described within the Case Study and the observations recorded by the reviews. For example the issue of the linkage between the partner of choice for LAs and the categorisation of LAs in the Customer Matrix of Case G and no evidence of a plan for realising the vision. This scenario has a clear link to TT16, and the only Case to have this identified, by all four observers was Case G.

It is proposed that the lack of reference to a particular Theoretical Theme within a Case Study Write-Up, does not necessarily confirm that there are no issues within the organisation. The setting of the TTs in the negative context is that they encourage the observation of poor performance rather than good. The resetting of the TTs into a neutral context would aid the observation in both a positive and negative context. Recommendation 4 (Chapter 8, p. 189).

It cannot be concluded that there is a correlation between TTs and the OC; it is that the sample size taken may be too small for these correlations to be observed. Examples of poor communication are articulated within all of the cases with the exception of Case D and Case F. These two cases have self-assessed themselves under Service Provision as Soft. So there is a potential correlation between good communication and Soft Service, or conversely between poor communications and hard service provision. This opens an avenue for further research considering the position of organisations on the Organisation Continuum Profile and the observation of TTs. Recommendation 2 (Chapter 8, pp. 187-188).

Drawing on the data presented in this Chapter, (concluded above and with reference to Table 5-1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114), it is argued the 23 Theoretical Themes have been observed within the case studies and is evidence for the claim of the attainment and therefore the successful delivery of RO4.
Concluding Analysis In Relation To The Research Objectives

CHAPTER SUMMARY
Evidence has been presented within this Chapter that the research aim “To test and validate an approach that will contribute to the field of relationship management”, delivered through four research objectives has been met.

The approach styled the Developing a Customer-Focused Approach (DaCfA Model and Toolset) was tested both inside and outside the Case X environment, with evidence from case study write-ups, participant comments and participant DaCfA instrument returns (multi data sources) being triangulated to provide an overall acceptability statement and Quasi-statistical Mean concerning its usability and effectiveness.

The calculated arithmetic median (3.50) was used as the Threshold of Acceptability (Chapter 2, p. 36) rating for acceptable feedback from participants’ instrument returns. The data triangulation provides positive evidence that the research aim and objectives concerning the DaCfA Model and Toolset have been fully met in all aspects and this is summarised below:

- All instrument returns concerning the specific DaCfA Toolset Matrices and Templates associated to the DaCfA Model returned a Quasi-statistical Mean of 4.52, (Chapter 5, Figure 5-1, p. 147);
- All instrument returns addressing the DaCfA Toolset and the Overall and Team Leader instruments returned a Quasi-statistical Mean of 5.05, (Chapter 5, Figure 5-2, p. 155);
- Case X view (Cases C and H) to satisfy RO1 returned a Quasi-statistical Mean of 5.17, (Figure 6-1, p. 164) which is above the set Threshold of Acceptability;
- External to Case X (Case D, E, F and G) to satisfy RO2 returned a Quasi-statistical Mean of 5.00, (Figure 6-2, p. 168) and
- Other than the solely internal supply-chain context (Cases D, E, F, G, H) to satisfy RO3 returned a Quasi-statistical Mean of 4.96, (Figure 6-4, p. 171).

Furthermore, evidence has been provided (pp. 171-176) that the 23 Theoretical Themes, which can be readily observed within organisations initiating a Customer-Focused activity, have been independently verified by the four reviewers (Chapter 2, pp. 44-45) and therefore meets the requirements of RO4.

Recommendations for further research identified above including the tailoring of the DaCfA Toolset; alignment of the usability of the DaCfA Toolset and the observation of Theoretical Themes dependent
upon the OC profile of the Organisation and the setting of Theoretical Themes in a neutral context shall be developed further in Chapter 6 leading to seven recommendations.

Finally the above shall be summarised and concluded within Chapter 7 so as to make a claim regarding the contribution to knowledge that this research has made.
Chapter 7

Research Conclusions: Contribution to Knowledge

INTRODUCTION
The aim of this chapter is to conclude the previously presented findings in a manner that provides evidence that the research aim and objectives, as described in Chapter 1 and articulated in Chapter 4, have been met, leading to a contribution to knowledge.

ACHIEVEMENT OF RESEARCH AIM AND OBJECTIVES
The research aim, to develop and validate an approach that will contribute to the field of relationship management, was facilitated through three research objectives (RO): to design, develop and test an approach to internal supply-chain identification (DaCfA) for application within the Case X environment; to test the DaCfA in organisations other than Case X; to test the DaCfA in fields other than those associated solely in an internal supply-chain context. A fourth objective was composed concerning the identification of a set of themes (styled Theoretical Themes) that can be readily observed within organisations initiating a Customer-focused activity.

DaCfA Model and Toolset
The first three objectives (RO1, RO2 and RO3) are concerned with the development of the DaCfA Model and Toolset. The evidence presented and argued concerning the usability and effectiveness of the toolset was gathered via collection of case study write-ups and user feedback utilising a specifically designed suite of instruments.

Each instrument utilised a Likert type scale designed to gather, and triangulate opinion from three contexts:

- On each Toolset Artefact (templates and matrices);
- Overall experience perspective; and
- Team leader perspective.

A fourth context was that of the facilitators’ perspective, but there results were not utilised in the algorithm to calculate Quasi-statistical Mean, therefore the published quasi-means are constructed purely from User perspectives and are therefore a true reflection of both usability and effectiveness.
The triangulation of data was carried out in four views:

- All case studies returning a Quasi-mean of 5.05, (Chapter 5, Figure 5-2, p. 155);
- Case X view (Cases C and H) to satisfy RO1 returning a Quasi-mean of 5.17, Chapter 6, Figure 6-1, p. 164);
- External to Case X (Case D, E, F and G) to satisfy RO2 returning a Quasi-mean of 5.00, (Chapter 6, Figure 6-2, p. 168); and
- Other than the solely internal supply-chain context (Cases D, E, F, G, H) to satisfy RO3 returning a Quasi-statistical Mean of 4.96, (Chapter 6, Figure 6-4, p. 171).

From a purely statistical basis, the DaCfA Toolset has proved to be usable, the respondents have rated it (dependent upon setting) from 4.96 to 5.17, which is positively above the set acceptable 3.50 threshold of acceptability. The instruments (Appendix I) posed questions such as: “To what extent did completing the ………… improve your understanding of the services provided by each supplier?” or “Overall please rate how useful you believe the activity of applying the …………… to your Organisation/Business Unit has been?” or “To what extent did you find completing the Suite of Matrices a beneficial activity?” and therefore these Quasi-statistical Means give a clear indication concerning the usability and effectiveness of the toolset artefacts.

The respondent feedback was supplemented with feedback comments and case study observations interjected to support the data set presented.

Case Study comments from participants include:

- From within Case X, Case C: “this was an extremely worthwhile exercise and formed the basis for us to better understand our customer/supplier base across the other service areas”; and
- From outside Case X, Case F: “the exercise was very thought provoking and informative”.

Case study write-ups examples are:

- Cases D and F: The Measurement Template assisted in the identification of measures that could be removed, re-assigned or replaced resulting in a reduction of 52% and 41% respectively;
- Case A: Application of the DaCfA Model identified that the Audit Charter had been communicated to key customers with the Audit Team being aware of neither its issue, nor its final content; and
• Case G: The combined application of the Purpose Template and Supplier Matrix identified that there was no plan to realise the Mission Statement as a Partner of choice for LAs by converting Non-supportive LAs into Supportive LAs.

The statistical analysis of completed toolset instruments; positive case study comments and examples of practical benefits gained by applying the DaCfA Model and Toolset, it is argued provide clear evidence of the practicality and efficacy of the DaCfA Model and Toolset. There is a clear link to the fulfilment of the research aim through the realisation of the three Research Objectives RO1, RO2 and RO3, leading to a contribution to knowledge by the provision of the DaCfA Model and suite of Toolset artefacts (templates and matrices) that contribute to the field of relationship management.

Theoretical Themes

Theoretical Theme observations were reported (Table 5-1, Chapter 5, p. 113 and Table 5-2, Chapter 5, p. 114) in two contexts as a Percentage\(^{25}\) corroboration and as a Strength\(^{26}\) of corroboration. All 23 of the Theoretical Themes were observed in a singular or corroborated context across the suite of research case studies. The Theoretical Themes were grouped via the elements of the DaCfA Model, that is to say: Purpose; Customer Requirements; Controls and Measurement. The grouping that received the highest corroborated observations was Customer Requirements at 62% (Table 5-1, Chapter 5, p. 113). The group with the lowest corroborated rate at 25% was Controls (Table 5-1, Chapter 5, p. 113).

The Theoretical Themes receiving the highest individual corroborated percentage were TT7 (Organisations do not always understand the full context of the supply-chain model.) and TT13 (Organisations do not always understand how they have described service quality to their customer be they external or internal.) at 86% (Table 5-2, Chapter 5, p. 114). Both are associated with the Customer Requirements grouping. The only Theoretical Theme that was not observed in a corroborated context was TT21, (Measures are taken at corporate level but not at local – what actually matters to the business area.), it was however viewed in a single context in five cases (Table 5-2, Chapter 5, p. 114).

The analysis and presentation of corroborated observations of the Theoretical Themes by reviewers, it is argued that there is clear evidence of the prominence of the Theoretical Themes within the case study organisations, and therefore a clear link to the accomplishment of the research aim through the achievement of the Research Objective RO4, leading to a contribution to knowledge by the provision of a set of themes that can be readily observed within organisations initiating a Customer-Focused activity.

\(^{25}\) How many corroborated observations of a Theoretical Theme are seen across the seven case studies.

\(^{26}\) The observation of the same Theoretical Theme in the same case study report by different reviewers.
CONTRIBUTION TO KNOWLEDGE

Chapter 6, pp. 158-177 has provided detailed evidence in a series of narratives that the Research Aim and four Research Objectives set for this research project have been achieved; that evidence has been expanded upon above, the outcome of which are the following claims of contributions to knowledge:

1. The DaCfA Model, Figure 4-2, Chapter 4, p. 97, has been developed through which a organisations can gain a clearer understanding of their:

   - **Purpose**: the main driver for the organisation’s/business unit’s existence, the set goal towards which the organisation must drive;
   - **Customer Requirements**: who are the organisation’s customers? What are their requirements? How will they identify and satisfy those requirements and who are the key suppliers needed to aid customer delivery?
   - **Controls**: how does the organisation provide conformity and stability? What agreements are in place with customers and suppliers and what are the key processes employed to ensure repeatability of service? and
   - **Measures**: what have been established, and how are they assured? Is the organisation measuring the right things, and how does it know?

   The model is unique in concept to aid an organisation’s thinking around its purpose and how that purpose ought to be realised, by fostering an holistic approach through the linkage of customer delivery; the services necessary to satisfy customer requirements; and the particular controls in use. The centrality of measurement to the DaCfA Model assists an organisation to consider all the facets required for a true Customer-focused approach and to evaluate how those particular aspects are performing. The DaCfA Model is uniquely supported by a comprehensive toolset.

2. The DaCfA Toolset, Chapter 4, pp. 101-108 is a unique suite of artefacts (matrices and templates) specifically designed to work in conjunction with the DaCfA Model and supported by a User Guide. The suite of eight artefacts comprises the **Purpose Template**, to facilitate the articulation of the organisation’s purpose; the **Customer Matrix**, to capture the organisation’s customers and the services they receive; the **Supplier Matrix**, to describe the organisation’s suppliers and the services they deliver; the **Relationship Matrix**, describing the relationship between the services delivered and those received; the **Agreements Template**, describing the contracts, SLAs and other methods employed by the organisation to manage service provision/receipt; the **Controls Template** formulating the processes, templates, protocols, procedures employed by the organisation to ensure consistent and appropriate levels of service provision; the **Risk Mitigation Template**, used to mitigate against any risks identified during the application of the DaCfA Model, and specifically the Customer, Supplier and
Relationship matrices and the *Measurement Template* formulated to articulate the full lifecycle of a measure, identified on any of the aforementioned templates or matrices. In particular the contribution of the Customer and Supplier Matrices together with the Measurement Template have particularly shown value through their application in assisting organisations in the identification of supply-chain matters concerning:

- Customer and Supplier interfaces and relationships by aiding decision making through the identification (Chapter 4, pp. 102-104) of:
  - Clearly identified Customers/Suppliers;
  - The Agreements (SLAs etc.) established with the Customer/Supplier;
  - Identification of Risks associated with those agreements;
  - The Services provided to the Customer or by the Supplier;
  - The importance of that service to the Customer;
  - The Control (process/procedure) associated to the Provided Service;
  - The Measure of effectiveness associated with the Service Provision; and
  - Identification of Risks associated with service delivery.

- Measurement definition by aiding decision making through the identification (Chapter 4, p. 108) of:
  - The Primary Measures;
  - Their Purpose;
  - Their importance and Ease of data collection;
  - The Type of measure (Financial/Customer Satisfaction/Process);
  - The Form of the measure (Leading/Lagging, Hard/Soft);
  - The Means and Timeliness of data collection;
  - The Success criterion of the measure; and
  - The Utilisation of measurement data to improve the item being measured.

3. The Theoretical Themes are set within the framework of the DaCfA Model and address aspects of an organisation’s: Mission/Vision; its supply-chain setting from both a Customer as well as a Supplier viewpoint; Communications, from a Leadership perspective as well as a grounding context; Controls and Agreements in operation; Risk identification and proficient Measurement. Four categories are constructed around the DaCfA Model into which the themes are grouped:

- Purpose: Mission/Vision; Strategy; Communications (including Leadership);
• Customer Requirements: Customer; Supplier and Supply-chain context;
• Controls: Alignment of practices to Mission/Vision; ownership of Controls; Risk; and
• Measurement: measurement of outputs; Mission/Vision attainment; Controls/
Agreements; the form and context of Measurement in operation.

These themes were fashioned into 23 Theoretical Themes, (set around the DaCfA Model detailed in Appendix E) that can be associated to academic literature, are readily observed within organisations undertaking a Customer-focused activity, thus enabling the facilitation of preventative actions prior to undertaking such activities:

• Purpose: Associated with Theoretical Themes: TT1, TT5, TT6, TT15 and TT16;
• Customer requirements: Associated with Theoretical Themes: TT7, TT8, TT9, TT13, TT14 and TT23;
• Controls: Associated with Theoretical Themes: TT2, TT3, TT10 and TT20; and
• Measurement: Associated with Theoretical Themes: TT4, TT11, TT12, TT17, TT18, TT19, TT21 and TT22.

CHAPTER SUMMARY

Evidence has been presented to conclude that the research aim and objectives set in Chapter 1 have been fully met leading to the Contribution to Knowledge in three specific areas: the DaCfA Model; the DaCfA Toolset and a set of 23 Theoretical Themes.

This claim is supported by a number of recommendations for further research that in turn could lead to further contributions to knowledge. The recommendations (seven in total) are associated with the: Organisation Continuum Profile Tool; tailoring of DaCfA Toolset artefacts; positioning, interaction and further development of the Theoretical Themes and the provision of a soft toolset (software package), Chapter 8.
Chapter 8

Further Research

INTRODUCTION

The aim of this Chapter is to converge the threads for further work recognised as part of this Research and reported during the data collection and analysis phase, (Chapter 5) and the concluding analysis in relation to the Research Objectives (Chapter 6) which if developed from recommendations into specific activities of research could lead to further contributions to knowledge.

These threads are:

- Associated with the Organisation Continuum (OC) Profile Tool;
- Regarding the profile of the organisation and the benefit gained from the application of the DaCfA Toolset for that organisation;
- The observation of specific Theoretical Themes in organisations verses their OC Profile.
- The tailoring of DaCfA Toolset Artefacts;
- Positioning, Interaction and further Development of the Theoretical Themes; and
- Provision of a Soft Toolset.

The threads have been developed into seven recommendations described below; they appear in no particular sequence:

Recommendation 1: The OC Profile Tool and the DaCfA Toolset

On several occasions throughout this research, for example Chapter 5 (pages 119, 131, 141, 148, 150, 152) there has been a hint of correlation between a positive perception towards the DaCfA Toolset and an organisation’s self-assessed position on the OC Profile Tool. However, due to the strength of that indication the researcher has refrained from making any claim regarding the contribution to knowledge. This is recognised as a further avenue of research.

Findings for Recommendation 1

Evidence towards this recommendation has been gathered from those OC continuums that show a greater than 25% difference on the Instrument Mean rating (see Table B’s of Appendix G).
A number of examples are available, the Customer Matrix, Customer Interaction *Integrate* descriptor (Case C and D), with an instrument mean value of 5.55, shows a 32% difference rating compared to the Remote Cases E, F and G, and shows as an indication that the Customer Interaction (*Integrate*) shows greater value towards the Customer Matrix than their counterparts on the OC Profile.

For the Supplier Matrix, the Customer Interaction *Integrated* descriptor, with a mean of 5.60 shows 50% difference compared to the Remote; the Product Type *Physical* at a 4.72 mean is 65% to the Virtual. In the Business Excellence Continuum a mean of 4.72; the *No Score* shows 65% difference compared to the >200 Points descriptor. Again these findings are an indication that the Customer Interaction (*Integrated*); the Product Type (*Physical*) and the BE Rating (*No Score*) show greater value towards the Supplier Matrix than their counterparts on the descriptor scale.

The Relationship Matrix identifies the Product Type *Virtual* descriptor (Case F), at 5.00, has a 27% greater mean value towards the artefact than the *Physical* (Cases D, E and H). With a mean of 5.00 the >200 Points (Case F) shows 27% difference compared with the *No Score* descriptor (Case D, E and H). Once again these findings indicate that the Product Type (*Virtual*) and the BE Rating (>200 Points) show greater value towards the Customer Matrix than their counterparts on the OC Profile.

From the findings associated with Recommendation 1 there is an indication that particular artefacts within the DaCfA Toolset are valued higher by organisations of a specific OC Profile rating.

**Recommendation 1:** To undertake further research to test whether there is a correlation between the OC Profile of an organisation and the benefits gained from the application of the DaCfA Model and Toolset (templates and matrices).

**Recommendation 2: The OC Profile Tool and the Theoretical Themes**

There have been several occasions throughout this research, for example Chapter 5 (pages 127, 136, 140, 145) and Chapter 6, p. 177-178, where a correlation between a particular Theoretical Theme and an OC Profile self-assessment has been indicated, but this researcher has refrained from making any claim to knowledge due to the lack of evidence and therefore recognises it as a future research avenue.

**Findings for Recommendation 2**

Referring to the Cross-case Matrix Output (Appendix J) the Theoretical Themes associated with the Control Templates (TTs 2, 3, 10, 20) are visible within the Service Type continuum for Group 1 and Group 2 descriptors. However there is an indication that the themes do not materialise within the *Hard* Service Provision Group 3(Cases B and C) descriptor.
Furthermore, reviewing the Cross-case Matrix (Appendix J) for the Customer-facing continuum there are indications of the Theoretical Themes within Group 1 (Case C) *Entirely Internal* and Group 3 (Cases B, D, F and G) *Entirely External* of the associated TTs, with no indication of the TTs (2, 3, 10, 20) visible in Group 2 (Cases A and E) *Both Internal and External*.

TT9 does not show in organisations that self-assessed as having a BE Rating of >200 Points (Cases F and G).

**Recommendation 2:** To undertake further research to establish whether there is a correlation between the Organisational Continuum Profile of an organisation and the observation of specific Theoretical Themes within those organisations when undertaking a Customer-focused activity.

**Recommendation 3: The Tailoring of DaCfA Toolset**

Tailoring of the DaCfA Toolset has been indicated in a number of areas particularly Case E; a Smallholding with two employees (owner and partner), one customer group and one supplier.

**Findings for Recommendation 3**

Case E; the case with the fewest number of customers and suppliers, appeared to gained the least (in the view of the Researcher, based upon the workshop held) value from the toolset, although its instrument Quasi-statistical Mean of 4.56 was not the lowest case rating. Case E did use the Customer and Supplier Matrices for investigating future markets, which appeared to be a useful activity.

The Agreement Template was utilised by only one of the research case studies (Case H) and although agreements were articulated by the other cases for example (Case F, p. 13) these agreements were captured on the Controls Template rather than the Agreement Template.

**Recommendation 3:** To adapt, through an active research approach, the DaCfA Toolset so that it can be readily useable to very small27 organisations; e.g. the Agreement and Controls Templates should be reviewed to see if it were feasible to combine the DaCfA templates to aid data capture.

---

27 This could be either numbers of staff, customers or suppliers.
**Recommendation 4: The Neutral Setting of the Theoretical Themes**

There have been occasions throughout this research, for example Chapter 6, p. 173, where a correlation to non-observation of a Theoretical Theme cannot be translated into good performance or best practice in that area. This recommendation is concerned with setting the Theoretical Themes in a neutral context so that positive and negative observations of Theoretical Themes can be made.

**Findings for Recommendation 4**

This recommendation is concerned with the positioning of the Theoretical Themes.

It is identified that the TTs are set in a negative context, for example TT8 (…*do not understand who their customers are…) was observed in a corroborated manner in five Cases A, B, C, D and G, however it is unknown if Case E would have been identified as positive examples if TT8 had been set in the context of *does the organisation understand who their customers are…* and so on. Chapter 5, Table 5-2, p. 114.

The ‘negative’ context of the suite of TTs, does not aid the identification of best in class practices, therefore when reviewing the cases in all of their guises, it has been problematic to conclude if a non-corroborated Theoretical Theme, is in fact a positive notion.

**Recommendation 4: Research into the context setting of the 23 Theoretical Themes should be undertaken. Currently 22 are set in the negative context and therefore do not lend to the identification of good practices. It is therefore recommended, that through active research, to set the Theoretical Themes in the neutral context which will allow for observation in the positive as well as the negative context.**

**Recommendation 5: The Interconnection of the Theoretical Themes**

This research has identified the correlation, or interaction between a number of the Theoretical Themes.

**Findings for Recommendation 5**

It has been observed that there is an indication that the TTs are interconnected not just linked by context of their Keyword Group, but also through their interconnection, effect or influence that they have upon other TTs.

An example of the correlation theory is Case G that shows a strong correlation for interconnection as TT2, TT3, TT4, TT6, TT15, TT16 and TT17, all show indications of an interaction, where one theme is observed so are the others, at a similar corroborated strength.
**Recommendation 5:** To carry out further research concerning the interconnection of the Theoretical Themes, not only in the context of keyword categorisation, but also by the form the Theoretical Theme takes (the essence of the question being posed). It is therefore recommended that further research is undertaken to understand the interconnections and inter-dependencies between the Theoretical Themes.

**Recommendation 6: Further Development of the Theoretical Themes**

This research has identified a number of Theoretical Themes that have been readily observed within organisations undertaking a Customer-focused activity, however it is recognised that this list of themes is not exhaustive.

**Findings for Recommendation 6**

Within the suite of themes there are areas that can clearly be expanded. Risk has a single theme associated with mitigation; the context of agreements is measurement rather than the appropriateness or style or quality of the agreement, this can also be reflected for controls. Additional themes may include the organisation’s approach to process management or how they undertake/commit to continuous improvement. It is therefore recommended that the suite of Theoretical Themes are further developed and tested to include additional themes that could give a greater coverage of an organisation’s attitude to Developing a Customer-focused approach.

**Recommendation 6:** To undertake further research to develop and test the list of Theoretical Themes that are observed within organisations when undertaking a Customer-focused activity.

**Recommendation 7: The Provision for a Software Package**

The DaCfA Toolset is a ‘manual’ approach, and it is believed that the application of the toolset and the accuracy of information captured could be greatly enhanced by the development of a software package that would tie the particular fields of the various Toolset artefacts together. As an example, measures identified on the various templates and matrices can be instantly transposed onto the Measurement Template for further development. This recommendation is therefore concerned with the specific development of a software package that will assist the capture and presentation of an organisation’s Customer-focused approach, thus aiding the identification of areas for improvement or the focus for further activity or the identification of good practices.
**Recommendation 7:** To develop and test an interactive software package that will aid the speed and quality of captured data, enabling a faster and better identification of good practice, or areas for improvement.

**CHAPTER SUMMARY**

This Chapter describes a number of recommendations for further research.

The initial threads identified in Chapter 4 have been grouped into themes and described in terms of further research avenues. These were then developed into recommendations which, it is believed, could lead to further contributions to knowledge.

The seven recommendations have been associated to the:

- Organisational Continuum Profile Tool;
- Context setting of Theoretical Themes, including interconnection and the tailoring of the DaCfA Toolset; and
- The provision of a software package.

The recommendations indicate opportunities to further build on the outcomes of this Research in demonstrating the value and potential of the DaCfA Model and Toolset for a wide-range of organisations.
### Appendix A

#### Pilot Activity (Case Xa) Service Provider OC Categorisation

<table>
<thead>
<tr>
<th>Continuum</th>
<th>MoD/Case X Project Interface</th>
<th>Library Services</th>
<th>Shift</th>
<th>Infrastructure Maintenance</th>
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<tr>
<td>Service Type</td>
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<td>4</td>
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<th>Payroll</th>
<th>Travel &amp; Subsistence</th>
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<td>Product Type</td>
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<td>Customer Interaction</td>
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Appendix B

The Organisational Continuum Profile Tool

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<th>Continuum</th>
<th>Service Type</th>
<th>Customer Facing</th>
<th>Customer Interaction</th>
<th>Product Type</th>
<th>Departmental Size</th>
<th>Customer Base</th>
<th>Service Culture</th>
<th>Company Perspective</th>
<th>Business Excellence Rating</th>
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<td></td>
<td></td>
<td>Soft</td>
<td>Internal</td>
<td>Remote</td>
<td>Virtual</td>
<td>Narrow</td>
<td>Emerging</td>
<td>Public</td>
<td>Less than 100 points</td>
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<td>Scale</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
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<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

The Organisational Continuum (OC) Profile Tool. Source: Author.
Appendix C

Case Study Protocol

The Case Study Protocol consists of the following elements:

- Procedures for undertaking the case study
- Questionnaires (Annex D) and observation aid memoir’s for data capture
- Facilitation aid (Annex G)
- Guide for case study reports

Overview
The case study projects take three forms:
- Case X
- External to Case X
- External Supply-chain

Facilitated where possible by a mix of facilitators.

The suite of case studies are designed to validate and verify (or prove otherwise) the Grounded Theory developed in the earlier phase of this research project.

Data from the analysed instruments (instruments) Annex D, E and J and narrative reviews of case study notes and reports are to be triangulated in both the Micro and Macro environments. In the Macro, each case study group to case study group and in the Micro, each case study, to case study within a groups a, b, and c referenced above.

Design
This Multi-case Study has been designed to ensure consistency across all of the case studies undertake.

Each of the Organisations to be studied will be benchmarked using the Organisational Continuum Annex C, in this context, any difference or similarity in results can compared and analysed to its grouping within the continuum spectrum.

According to Yin (2003:47) each case within the multi-case design should be selected to predict results that are either:

- Similar
- Contrasting

The design of the case study framework follows guidance set by Yin (2003: 21-27) that consists of five components:

- The Study Question
- The Proposition or direction of the study
- Units of Measure
- Linkage of Data to Proposition
- Criterion for the Interpreting the Data
The Study Question
In the context of the Suite of Case Studies, the research question to be answered is that of proving that the Suite of Matrices supporting the model, Developing a Customer-focused Approach, provide a consistent output and are not concerned with the ‘skill’ of the Facilitator or the ‘culture’ of the Organisation. It is in this form that the case study stretch outside of the Case X to provide substantive evidence that is unlikely to be a culture related; likewise Independent Facilitation is utilised to eliminate the claim that the process is facilitation driven and that provides the benefits, but it is the tool itself.

The Proposition or direction of the study
Proposition is concerned with the scope and direction of the case; centric to this study are a Suite of Matrices and a Suite of Study Instruments use to facilitate data gathering to prove or disprove the effectiveness and adaptability of the Matrices in developing a Customer-focused approach.

Units of Measure
The Suite of Instruments Annex D, E and J were developed to provide a data capturing tool to measure the success of the Suite of Matrices, together with surrounding data, such as Facilitator competence Appendix I.

Linkage of Data to Proposition
Linking of captured data to the proposition is facilitated by the use of the tailored instruments, that is an instrument Annex D, E and J is designed to capture relative data from the Suite of Matrices, Annex L.

Criterion for the Interpreting the Data
The interpretation of each statement, within each instrument, is as a minimum to calculate the Mean, Median and Modal statistical averages.

Narrative responses to each instrument are codified and analyses by Keyword themes.

Each returned instrument will be recorded for analyse anonymously. The criterion for the Codified Database can be found at Annex N.
Case Study Procedure

- Before undertaking any activity within the scope of the Case Study, an Ethical Review Informed Consent Letter Annex A, must be duly signed by the Team Leader.
- Each business area or organisation must be categorised using the Organisational Continuum, Annex C.
- Workshop activity shall follow the Facilitation Guide, Annex G.
- It is recommended that the workshop attendees should not exceed 12 for one facilitator.
- Field Notes are to be made of each activity held as well as any associated telecommunications.
- Instruments shall be circulated at the most appropriate time to ensure optimum data capture.
- Instrument and Field Note analysis shall only be carried out by the Researcher.
- The facilitator shall write-up their workshop notes in accordance with this protocol.

Case Study Report

Each case Study shall be written-up using the following guidance:

- Scope of the case study and specifically listing those areas that are outside of the research.
- Organisation and Team Leader name shall be captured as well as any participants.
- Overview of the activity undertaken, the number of meetings and the length such meetings.
- Attachment of all completed Matrices.
- Attachment of all returned instruments.
- Attachment of the Facilitators completed instrument.
- Conclusions regarding the perception of the facilitator on how things went
- Recommendations
- Annex added by the Researcher, the analysed results.
### Appendix D

**The Research Case Studies OC Profile**

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Scale</th>
<th>Continuum</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Service Type</td>
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<tr>
<td></td>
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<td>Customer Facing</td>
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<tr>
<td></td>
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<td>Customer Interaction</td>
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<td>Product Type</td>
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<td>Company Perspective</td>
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<tr>
<td></td>
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**Source:** Author.
## Appendix E

### The Theoretical Themes

<table>
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<tr>
<th></th>
<th>Inferred communication not grounded nor tested.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Local practices not aligning with working Mission description.</td>
</tr>
<tr>
<td>3</td>
<td>Local practices not aligning with visionary description.</td>
</tr>
<tr>
<td>4</td>
<td>Measurement, although described and articulated data is very rarely translated into information and used to improve mission, visions or purpose.</td>
</tr>
<tr>
<td>5</td>
<td>Leadership normally looks upwards and outward, but sometimes ignores the downward and inward view.</td>
</tr>
<tr>
<td>6</td>
<td>Strategies, formal (written) or informal (implied by actions) do not always align to the vision and vision articulated goals.</td>
</tr>
<tr>
<td>7</td>
<td>Organisations do not always understand the full context of the supply chain model.</td>
</tr>
<tr>
<td>8</td>
<td>Organisations do not clearly understand who their customers are and the differences between them.</td>
</tr>
<tr>
<td>9</td>
<td>Organisations do not always understand who their suppliers are and their context to customer delivery.</td>
</tr>
<tr>
<td>10</td>
<td>A high proportion of the controls used by business areas are not owned by those business areas.</td>
</tr>
<tr>
<td>11</td>
<td>Not all controls have adequate measures in place to quantify the effectiveness of that control.</td>
</tr>
<tr>
<td>12</td>
<td>Not all agreements have adequate measures in place to quantify the effectiveness of that agreement.</td>
</tr>
<tr>
<td>13</td>
<td>Organisation do not always understand how they have described service quality to their customer be they external or internal.</td>
</tr>
<tr>
<td>14</td>
<td>Organisations speak, but do not act with the customer in mind.</td>
</tr>
<tr>
<td>15</td>
<td>Vision and mission are rarely described in the terms of what we are to be undertaking in the near future, the description of a working mission or purpose.</td>
</tr>
<tr>
<td>16</td>
<td>Mission and Visions are articulated but are rarely detail, what it will mean when implemented.</td>
</tr>
<tr>
<td>17</td>
<td>Measures are rarely set to describe when visions; missions or purpose statements have been achieved.</td>
</tr>
<tr>
<td>18</td>
<td>Organisations describe vast measurement suites but are not balanced nor understood as a totality.</td>
</tr>
<tr>
<td>19</td>
<td>Measures are not articulated.</td>
</tr>
<tr>
<td>20</td>
<td>Risks are described but not mitigated.</td>
</tr>
<tr>
<td>21</td>
<td>Measures are taken at corporate level but not at local – what actually matters to the business area.</td>
</tr>
<tr>
<td>22</td>
<td>Soft measures are believed to be hard.</td>
</tr>
<tr>
<td>23</td>
<td>The power of customer perception is not understood.</td>
</tr>
</tbody>
</table>

The Theoretical Themes (TT). Source: Author.
Appendix F

Ethical Review (Case E17 (November 2006))

Ethical Review Checklist

This checklist should be completed by the researcher (PhD students to have DoS check) and sent to Sharman Rogers who will coordinate Ethics Committee scrutiny. No primary data collection can be undertaken before the supervisor has approved the plan.

If, following review of this checklist, amendments to the proposals are agreed to be necessary, the researcher must provide Sharman with an amended version for scrutiny.

1. What are the objectives of the research project?

   To develop and test a methodology for measuring and providing clarity of customer/service providers’ perception.

2. Does the research involve NHS patients, resources or staff? If so, it is likely that full ethical review must be obtained from the NHS process before the research can start.

   NO

3. Do you intend to collect primary data from human subjects or data that are identifiable with individuals? (This includes, for example, questionnaires and interviews.) YES / NO (please circle)

   If you do not intend to collect such primary data then please go to question 14.

   If you do intend to collect such primary data then please respond to ALL the questions 4 through 13. If you feel a question does not apply then please respond with n/a (for not applicable).

4. What is the purpose of the primary data in the dissertation / research project?

   To validate the ServQual methodology by gauging and understanding the views of the participants (team members) in the ServQual activities.

5. What is/are the survey population(s)?

   In the truest sense the population is unquantifiable as it has the potential to be all organisations within the UK. However the research methodology will identify the continua by which types of organisations will be selected to participate in the research.

   The structure of the sample size will be:

   - Organisation (external from AWE) = Maximum 24
     - Business Units within each Organisation = Maximum 10
       • Team Participants (Leader (1) Members (12 max) = Maximum 13
6. How big is the sample for each of the survey populations and how was this sample arrived at?

Due to the nature of the activity concerned and as described in 5, sampling will be at 100%. Participation within a team will be based around the criteria that will be set out in briefing packs sent to each organisation. Team selection will be carried out by the organisation. Each organisation will be encouraged to select a maximum of 10 teams, that will consist of one team leader and a maximum of 12 team members; therefore due to these numbers a full sample will be taken. Where a return of less than 90% is received significance tests will be applied to establish the credibility of such a return.

7. How will respondents be selected and recruited?

As described in 6; respondents will be recruited into the teams by the organisation, using selection criteria provided by the researcher.

8. What steps are proposed to ensure that the requirements of informed consent will be met for those taking part in the research? If an Information Sheet for participants is to be used, please attach it to this form. If not, please explain how you will be able to demonstrate that informed consent has been gained from participants.

Informed consent will be gained at two levels:

- with each organisation, by outlining the form of the research, the information that will be generated and how that information will be used within the published research
- with each individual who is a member of ‘ServQual’ team, by outlining the form of the research, the information that will be generated and how that information will be used within the published research

Although the specific consent letter has not yet been generated, a generic draft letter is attached, upon which the consent letter will be based.

9. How will data be collected from each of the sample groups?

Questionnaire – Hard copy

10. How will data be stored and what will happen to the data at the end of the research?

Hard copy questionnaires will be stored under lock and key. The data will be fed into a password protected electronic file for data analysis. Both sources of data will be destroyed 6 months after successful completion of the research project.

11. How will confidentiality be assured for respondents?

The Consent letter will contain a section that will act as a confidentiality agreement. All questionnaires will be codified and that codification will not be stored or associated within the raw data or the published report. Acknowledgements will be given within the published reports but association to data will not be included.
12. What steps are proposed to safeguard the anonymity of the respondents?

Codification will be used on all data collection and storage media, therefore traceability will be maintained however identification an individual will only be possible if the individual wishes to use their unique identification number. This information will not be published and the researcher will be the only individual with the need to know. The use of a unique identifier is to ensure that follow-up questioning can occur if required. There are no other means of identifying an individual if they choose not to include their unique identifier.

13. Are there any risks (physical or other, including reputational) to respondents that may result from taking part in this research? If so, please specify and state what measures are proposed to deal with these risks.

No

14. Will any data be obtained from a company or other organisation? YES / NO (please circle) For example, information provided by an employer or its employees.

What steps are proposed to ensure that the requirements of informed consent will be met for that organisation? How will confidentiality be assured for the organisation?

In all cases a confidentiality agreement will be initiated between me and each specific test organisation. This agreement will cover the type of data to be collected; the usage of that data within the research methodology; the usage of the data within published research and the survey population from within the organisation.

15. Are there any risks (physical or other, including reputational) to the researcher or to the University that may result from conducting this research? If so, please specify and state what measures are proposed to manage these risks.¹

No
### 16. Will the proposed research involve any of the following (please put a √ next to ‘yes’ or ‘no’; consult your supervisor if you are unsure):

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulnerable groups (e.g. children)?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Particularly sensitive topics?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Access to respondents via ‘gatekeepers’? *</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Use of deception?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Access to confidential personal data?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Psychological stress, anxiety etc?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Intrusive interventions?</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*Gatekeepers will only be used in the selection of participants. Completed questionnaires will be passed directly the researcher.*

### 17. Are there any other ethical issues that may arise from the proposed research?

No

Please print the name of:

- **I/We grant Ethical Approval**
- **student**: Peter Dack
- **supervisor**: Debbie Reed

<table>
<thead>
<tr>
<th>(student)</th>
<th>(supervisor)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 October 2006</td>
<td>30 October 2006</td>
</tr>
</tbody>
</table>

**AMENDMENTS**

If you need to make changes please ensure you have permission before the primary data collection. If there are major changes, fill in a new form if that will make it easier for everyone. If there are minor changes then fill in the amendments (next page) and get them signed before the primary data collection begins.
Appendix F

The Change To Ethics Permission Form. Source: Author.

CHANGES TO ETHICS PERMISSION

VERSION: ____

Please describe the nature of the change and impact on ethics:

Please print the name of: 

researcher ____________________________ FREC ______________
Signed: ________________________ (Signed)
(student) ____________________________
Date ____________________________ Date ____________________________

(Please cut and paste the next section, together with the heading at the top of this page, as many times as required)

VERSION: ____

Please describe the nature of the change and impact on ethics:

Please print the name of: 

researcher ____________________________ FREC ______________
Signed: ________________________ (Signed)
(student) ____________________________
Date ____________________________ Date ____________________________

The Change To Ethics Permission Form. Source: Author.
INFORMED CONSENT LETTER

Dear ………………. ,

You are being asked to participate in a study investigating the ServQual Methodology that I am currently developing as part of a PhD research project through the University of Portsmouth.

If you agree to participate you will be asked to select a number of teams (using the selection criteria described in leaflet A (tbd)).

Teams will be facilitated through a number exercises using the ServQual Methodology. On completion of the activity all team members will be asked to complete a questionnaire designed at collecting data around the developed ServQual Methodology.

All responses will be codified so that anonymity of the respondent and the organization will be maintained. The questionnaire example attached (tbd) will only request information regarding the ServQual Methodology and nothing of an organizational or personal nature. Credit will be given to your organization for participating in this research study. Individual names from within your organization will not be published.

Although all studies have some degree of risk, having reviewed this study using appropriate ethical guidelines, there appears to be no known or anticipated risks to your participation in this study. Your organization or the individuals concerned will not incur any costs as a result of your participation in this study.

Your participation, and that of your staff is voluntary. If at any time during this study you or they wish to withdraw from the study you are free to do so without prejudice.

If you have any questions prior to your participation or at any time during the study, please do not hesitate to contact me at …. or email me at ……………

AUTHORIZATION:
I have read the information presented in the covering note about the research project being undertaken by ……. as part of ……………………….. at the University of Portsmouth. I have had the opportunity to have my questions related to this study answered and I know that should I have any comments or concerns resulting from my participation in this research, I may contact the researcher or his supervisor …. (email: ……….). I was informed that I could withdraw my consent and that of the organization at anytime by advising the researcher and that in completing this consent letter I agree, of my own free will, to participate in this research. Further I agree to participate in follow-up interviews if necessary.

Participant’s signature: ________________________ Date: _______________

Researcher’s signature: ________________________ Date: _______________

The Informed Consent Letter. Source: Author.
### Purpose Template

#### Instrument Data Tables A & B

**Table A1: Statistical Analysis the Purpose Statement Template Instrument. Source: Author.**

Associated with Theoretical Themes Keyword Groups Purpose 1, 5, 6, 15 and 16.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>% Difference</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Ø</td>
<td>Range ¥</td>
</tr>
<tr>
<td>Customer Interaction</td>
<td>9.97</td>
<td>90.91</td>
</tr>
<tr>
<td>Product Type</td>
<td>5.43</td>
<td>36.69</td>
</tr>
<tr>
<td>Service Culture</td>
<td>7.86</td>
<td>8.31</td>
</tr>
<tr>
<td>Business Excellence Rating</td>
<td>5.43</td>
<td>36.69</td>
</tr>
<tr>
<td>Group Size (Facilitation Style)</td>
<td>1.08</td>
<td>10.73</td>
</tr>
</tbody>
</table>

**Table B1: Continuum/Cross-case Context Purpose Statement Template Instrument. Source: Author.**
Customer Matrix

<table>
<thead>
<tr>
<th>Instrument Title: Customer Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case</strong></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td><strong>Case Mean</strong></td>
</tr>
<tr>
<td><strong>Case Range</strong></td>
</tr>
</tbody>
</table>

**Comment of Responders:**
- Case C – Very Useful.
- Case D – Easiest to understand.
- Case G – Outlined the organisation in such a clear chart.


Associated with Theoretical Themes Keyword Grouping Customer Requirements: 7, 8, 9, 13, 14 and 23.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>% Difference</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Ø</td>
<td>Range Y</td>
</tr>
<tr>
<td>Customer Interaction</td>
<td>32.22</td>
<td>69.57</td>
</tr>
<tr>
<td>Product Type</td>
<td>23.45</td>
<td>8.33</td>
</tr>
<tr>
<td>Service Culture</td>
<td>16.97</td>
<td>43.75</td>
</tr>
<tr>
<td>Business Excellence Rating</td>
<td>23.45</td>
<td>1.44</td>
</tr>
<tr>
<td>Group Size (Facilitation Style)</td>
<td>13.07</td>
<td>7.27</td>
</tr>
</tbody>
</table>

Table B2: Customer Matrix Context. Source: Author.
## Supplier Matrix

**Instrument Title: Supplier Matrix**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Case</th>
<th>A</th>
<th>B</th>
<th>C (2)</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G (8)</th>
<th>H (5)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>4.20</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>-</td>
<td>-</td>
<td>5.5</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>4.30</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3.50</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>4.00</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>3.50</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4.25</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4.00</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>4.20</td>
</tr>
<tr>
<td>Case Mean</td>
<td></td>
<td>-</td>
<td>-</td>
<td>5.2</td>
<td>6</td>
<td>3.8</td>
<td>2.4</td>
<td>-</td>
<td>-</td>
<td>3.88</td>
</tr>
</tbody>
</table>

**Case Range**

| Statement Means Range $|$ | 0.75 |
|---------------------------|------|
| Statement Mean/Mean $|$  | 3.99 |
| Case Mean Range $|$  | 3.6  |
| Case Mean/Mean $|$  | 4.26 |

**Comment of Responders:**

Case C – Interesting to see how suppliers and services are linked.

Case D – Identified supplier context was more complicated than initially though

### Table A3: Statistical Analysis the Supplier Matrix Instrument. Source: Author.

*Associated with Theoretical Themes Keyword Grouping Customer Requirements: 7, 8, 9, 13, 14 and 23.*

<table>
<thead>
<tr>
<th>Continuum</th>
<th>% Difference</th>
<th>Descriptors</th>
<th>Mean Ø</th>
<th>Range Ÿ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Interaction</td>
<td>50.00</td>
<td>Remote (E,F,G,H) vs. Integrated (C,D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>3.36</td>
<td>1.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>5.60</td>
<td>0.25</td>
</tr>
<tr>
<td>Product Type</td>
<td>65.17</td>
<td>Virtual (F,G) vs. Physical (C,D,E,H)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>2.40</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>4.72</td>
<td>0.88</td>
</tr>
<tr>
<td>Service Culture</td>
<td>24.51</td>
<td>Emerging (D,E) vs. Established (C,F,G,H)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>4.90</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>3.83</td>
<td>1.50</td>
</tr>
<tr>
<td>Business Excellence Rating</td>
<td>65.17</td>
<td>No Score (C,D,E,H) vs. &gt;200 Points (F,G)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>4.72</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>2.40</td>
<td>2.00</td>
</tr>
<tr>
<td>Group Size (Facilitation Style)</td>
<td>10.92</td>
<td>1-2-1(D,E,F) vs. Greater than 2 (C,G,H)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>4.07</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean vs. Range</td>
<td>4.54</td>
<td>1.25</td>
</tr>
</tbody>
</table>

### Table B3: Supplier Matrix Context. Source: Author.
### Relationship Matrix

<table>
<thead>
<tr>
<th>Statement</th>
<th>Case Mean</th>
<th>Case Range</th>
<th>Comment of Responders:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.00</td>
<td>-</td>
<td>Case D – The purpose of this matrix seemed less clear compared to the others</td>
</tr>
<tr>
<td>2</td>
<td>4.00</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4.25</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4.25</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4.25</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Case Mean</td>
<td>4.20</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

### Table A4: Statistical Analysis the Relationship Matrix Instrument. Source: Author

Associated with Theoretical Themes Keyword Grouping Customer Requirements: 7, 8, 9, 13, 14 and 23.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>% Difference</th>
<th>Descriptors</th>
<th>Mean Ø</th>
<th>Range Ỹ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Interaction</td>
<td>3.14</td>
<td>Remote (E,F,G,H)</td>
<td>4.07</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrated (C,D)</td>
<td>4.20</td>
<td>2.00</td>
</tr>
<tr>
<td>Product Type</td>
<td>27.27</td>
<td>Virtual (F,G)</td>
<td>5.00</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical (C,D,E,H)</td>
<td>3.80</td>
<td>1.00</td>
</tr>
<tr>
<td>Service Culture</td>
<td>19.51</td>
<td>Emerging (D,E)</td>
<td>3.70</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Established (C,F,G,H)</td>
<td>4.50</td>
<td>0</td>
</tr>
<tr>
<td>Business Excellence Rating</td>
<td>27.27</td>
<td>No Score (C,D,E,H)</td>
<td>3.80</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;200 Points (F,G)</td>
<td>5.00</td>
<td>0</td>
</tr>
<tr>
<td>Group Size (Facilitation Style)</td>
<td>3.20</td>
<td>1-2-1(D,E,F)</td>
<td>4.13</td>
<td>1.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater than 2 (C,G,H)</td>
<td>4.00</td>
<td>0</td>
</tr>
</tbody>
</table>

Table B4: Relationship Matrix Context. Source: Author.
### Agreements Template

**Instrument Title: Agreements Template**

<table>
<thead>
<tr>
<th>Case</th>
<th>A</th>
<th>B</th>
<th>C (2)</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G (8)</th>
<th>H (5)</th>
<th>Mean</th>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>2</td>
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<td>3</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Case Mean</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.4</td>
</tr>
<tr>
<td>Case Range</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.50</td>
</tr>
</tbody>
</table>

**Statement Means Range §** 1.50

**Statement Mean/Mean ‡** 4.40

**Case Mean Range ∞**

**Case Mean/Mean ≠** 4.40

**Comment of Responders:**
Case H - only used this once, would be useful to use this more in the future.

---

**Table A5: Statistical Analysis the Agreements Template Instrument. Source: Author.**

*Associated with Theoretical Themes Keyword Grouping Controls: 2, 3, 10 and 20.*

---

<table>
<thead>
<tr>
<th>Continuum</th>
<th>% Difference</th>
<th>Descriptors</th>
<th>Mean Ø</th>
<th>Range Ÿ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Interaction</td>
<td>-</td>
<td>Remote (E,G,H)</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrated (C,D)</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>Product Type</td>
<td>-</td>
<td>Virtual (E,G)</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical (C,D,E,H)</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Service Culture</td>
<td>-</td>
<td>Emerging (D,E)</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
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<td></td>
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**Table B5: Agreements Template Context. Source: Author.**
Controls Template

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Case Mean

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</table>

Table A6: Statistical Analysis the Controls Template Instrument. Source: Author.

Associated with Theoretical Themes Keyword Grouping Controls: 2, 3, 10 and 20.

Comment of Responders:
Case H - initially did not understand what was meant by controls.

Table B6: Controls Template Context. Source: Author.
Risk Mitigation Template

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</tr>
<tr>
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**Statement Means Range §**: 2.00

**Statement Mean/Mean ‡**: 4.63

**Case Mean Range ∞**: 0.41

**Case Mean/Mean ≠**: 4.63

**Comment of Responders:**
Case H – it highlighted the significance more clearly.

Table A7: Statistical Analysis the Risk Mitigation Instrument. Source: Author.

*Associated with Theoretical Themes Keyword Grouping Controls: 2, 3, 10 and 20.*

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Table B7: Risk Mitigation Template Context. Source: Author.
# Measurement Template

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**Case Mean Range**

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**Statement Means Range**

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**Statement Mean/Mean**

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**Case Mean Range**

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**Case Mean/Mean**

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**Comment of Responders:**

- Case D – Proved the most valuable element of the model.
- Case H – still gathering in data to tell us what our measures are telling us, getting the right measures is difficult.

Table A8: Measurement Template Context. Source: Author.

Associated with Theoretical Themes Keyword Grouping Measurement: 4, 11, 12, 17, 18, 19, 21 and 22

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<th>Range Ŷ</th>
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Table B8: Measurement Template Context. Source: Author.
## Overall Activity

### Instrument Title: Overall Activity Instrument

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<th>F</th>
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### Comment of Responders:
Case C – Wonderful tool helped understanding of service delivery.
Case D – Helps clarity; Needed a bit of help to identify full benefits from the tool; maybe better undertaken as a Team event.
Case F – Found it very useful, but labour intensive.
Case G – Interesting to hear colleagues thoughts; Found the exercise useful; Very useful session; Very useful .
Case H – Happy to participate; most useful activity that I have undertaken, the tool is useful as a working document to help focus you and the team on what we should be doing, for whom and how you can approve; happy to participate; overall the activity output helps me visualise where I sit vs customers, suppliers etc.

Table A9: Statistical Analysis the Overall Activity Instrument. Source: Author.

<table>
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<th>Continent</th>
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<th>Integrated (C,D)</th>
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<td>1.50</td>
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Table B9: User Perception (Overall) of the DaCfA Toolset. Source: Author.
Team Lead

### Instrument Title: Team Lead

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| Case Mean |       | 6 | 6 | 5 | 5.5 | 5.2 | 5.7 |
| Case Range |       | 0 | 0 | 0 | 2   | 2   | 2   |

| Statement Means Range § | 1.00 |
| Statement Mean/Mean ‡   | 5.49 |
| Case Mean Range ∞       | 0.80 |
| Case Mean/Mean ≠        | 5.57 |

**Comment of Responders:**

Case C – Was not aware it would cover such detail and be so useful.

Case H - This whole activity has enabled us to gain control, improve our services and our reputation with both our internal and external customers and stakeholders. I do believe that we will use the matrices to help us continually monitor and improve what we do.

Table A10: Statistical Analysis the Team Lead Instrument. Source: Author.
## Facilitator Instrument

**Instrument Title: Facilitator Instrument**

<table>
<thead>
<tr>
<th>Case</th>
<th>Statement</th>
<th>A</th>
<th>B</th>
<th>C (2)</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G (8)</th>
<th>H (5)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>4</td>
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<td>6</td>
<td>6</td>
<td>6</td>
<td>6.00</td>
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<tr>
<td></td>
<td>Case Mean</td>
<td>5.8</td>
<td>5.4</td>
<td>5.6</td>
<td>5.2</td>
<td>5.2</td>
<td>5.8</td>
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<td>5.6</td>
<td>5.8</td>
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| Case Range | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |

**Statistical Analysis of the Facilitator Instrument**

<table>
<thead>
<tr>
<th>Statement Means Range $$</th>
<th>0.62</th>
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<tbody>
<tr>
<td>Statement Mean/Mean ‡</td>
<td>5.55</td>
</tr>
<tr>
<td>Case Mean Range $\infty$</td>
<td>0.60</td>
</tr>
<tr>
<td>Case Mean/Mean ≠</td>
<td>5.55</td>
</tr>
</tbody>
</table>

### Comment of Responders:

- **Case A** – Helped to focus the customer survey and ruled out a number of stakeholder from the survey.
- **Case B** – helped to develop a better understanding of the customer base.
- **Case C** – helped to identify a key customer who had been initially forgotten.
- **Case D** – Need the initial context setting of the toolset then became proficient in its use.
- **Case E** – The DaCfA Toolset help in future state planning not just base-lining the as-is.
- **Case F** – helped to hone the suite of measures in place also greatly the identification of risk.
- **Case G** – First time the team had been bought together to undertake such an activity, there were a wide-range of understanding within the team of 8.
- **Case H** - The matrices where easy to understand, they trigger good open discussions and enable team members to learn from one another. The whole activity increased individuals and team knowledge skills and approach to interacting with their customers and stakeholders. The completed sheets also helped with other company activities relating to customer service catalogues and service delivery, performance management, business continuity and risk management.

Table A11: Statistical Analysis the Facilitator Instrument. Source: Author.

<table>
<thead>
<tr>
<th>Continuum</th>
<th>Descriptors</th>
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<tbody>
<tr>
<td><strong>Customer Interaction</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remote (A,E,F,G,H)</td>
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<td></td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>5.64</td>
</tr>
<tr>
<td><strong>Product Type</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Virtual (A,F,G)</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Service Culture</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emerging (A,D,E)</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>5.40</td>
</tr>
<tr>
<td><strong>Business Excellence Rating</strong></td>
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</tr>
<tr>
<td></td>
<td>No Score (A,B,C,D,E,H)</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>5.46</td>
</tr>
<tr>
<td><strong>Group Size</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-2-1(D,E,F)</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>5.40</td>
</tr>
</tbody>
</table>

Table B11: Facilitator Perception of the DaCfA Toolset. Source: Author.
Appendix H

Case Study ‘G’ Feedback Presentation (Example)

DEVELOPING A CUSTOMER-FOCUSED APPROACH
Developed by Peter R. Dack

AGENDA
- Purpose of Today’s Meeting
- Feedback of Activity
- Suggested next Steps
- Completion of Questionnaires
THE MODEL - DEVELOPING A CUSTOMER-FOCUSED APPROACH (DaCIA)

**Purpose**
- We developed a Purpose Statement, and used it as a working mission statement.
  - To raise awareness of School Governance, and to recruit enthusiastic volunteers to serve as governors.
  - Which could be measured through the delivery of 5 key attributes:
    - Improved Levels of Interest;
    - Expression of Interest;
    - Recruitment of Volunteers;
    - Placement of Volunteers and
    - Parent Care of Volunteers.

- Reviewed against the current Mission, Vision and Values
  - The appropriateness of the current vision was discussed, particularly concerning the Partners of Choice for Local Authority.

**Customer Matrix**
- The Customer matrix built through a number of exercises, identifying:
  - 13 Customers (9 primary, 2 secondary)
  - 2 stakeholders (DFE, Charity Commission)
  - The provision of 8 services
  - Few measures
  - Minimal use of documented protocols
  - Inconsistent application of customer agreements:
    - Memorandum of Understanding
    - Customer Charters

- Risk were identified in the areas of
  - Inconsistent application of non-documentated processes
  - Placement of Volunteers
  - Volunteers withdrawing or resigning early
Measurement Template

- 10 Measures articulated
  - 4 original Process Measures
  - Identification of 6 new measures
    - 2 Financial
    - 1 Customer Satisfaction
    - 3 Process
- Good balance of Leading/Lagging and Hard/Soft combination
- Focus of the target setting for identified measures
- Review the suite of measures clearly identifying those you wish to utilise

Suggested Next Steps

- Review of Mission, Vision and Values
- Articulate the Case G Life-cycle and supporting Protocols
- Develop Pastoral Care Process and associated tool set
- Investigate the wider use of Charters and MoU
- Review of the Vacancy Notification and Application Forms – are they providing the right information
- Investigate, should you Filter Applications
- Articulate the service Networking
- Review the Measurement Suite and adopt as appropriate
- Review the identified Risks

Completion of Questionnaires

- Please be honest, and where possible justify ‘mark’
- All feedback is good feedback
- Suggest that all or none place names on questionnaires
- Responses are non-traceable in the issued thesis
- Short questionnaires:
  - Overall Activity
  - Purpose Template
  - Customer Matrix
  - Measurement Template
  - Team Leader
- Thank you...

Case Study Feedback Presentation. Source: Author.
Appendix I

DaCfA Toolset Instrument (Example)
And Instrument Statements

Developing a Customer-focused Approach
Team Leader Instrument

Participating Organisation:

Name of Participant: Date:

Please complete this questionnaire from your perspective.

1. As the Team Leader, applying the Suite of Matrices, I gained a better understanding of the Team’s perceptions of the Organisation/Business Unit?

2. As the Team Leader, applying the Suite of Matrices, I believe the team gained a better understanding of the Organisation/Business Unit?

3. As Team Leader, I would be happy to sponsor in this type of activity again?

4. As Team Leader, I would recommend this type of activity to others?

5. Overall, please rate the Facilitation you received during the Customer-Supplier Activity?

6. Overall, please rate how helpful/useful you believe the applying the Suite of Matrices to your Organisation/Business Unit has been?

7. If you would like to make a comment with respect to the answers you gave above, please add them within the space below:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Strongly Agree</th>
</tr>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Strongly Agree</th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Extremely Unhelpful</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely Helpful</th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Extremely Unhelpful</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely Helpful</th>
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</tbody>
</table>
Appendix I

Purpose Statement Template Instrument Statements
The Purpose Template Statement Instrument consists of six statements:

1. Completing the Purpose Matrix improved your understanding of the purpose of your Organisation/Business Unit?

2. Actively discussing the Purpose of your Organisation/Business Unit was a worthwhile activity?

3. Selecting the Purpose Attributes assisted in your understanding of the Purpose of Your Organisation /Business Unit?

4. The identification of Measures associated with the Purpose of Your Organisation /Business Unit added value?

5. Completing the Purpose Matrix added value to the Organisation/Business Unit?

6. Overall please rate how helpful/useful you believe the activity of applying the Purpose Template to your Organisation/Business Unit has been?

7. Are there any other comments you wish to make regarding the Purpose Matrix activity in particular or the Customer-Supplier Matrix in general? If so please add them within the space below:

Customer Matrix Instrument Statements
The Customer Matrix Instrument consists of eight statements:

To what extent did completing the Customer Matrix improve your understanding of your Organisation/Business Unit Customers?

2. To what extent did completing the Customer Matrix improve your understanding of the general Services provided to your Customers?

3. To what extent did completing the Customer Matrix improve your understanding of the Services provided to each Customer?

4. To what extent did completing the Customer Matrix improve your understanding of the Controls employed against each Customer?

5. To what extent did completing the Customer Matrix improve your understanding of the Measures associated with the Services you provide?

6. To what extent did completing the Customer Matrix improve your understanding of the potential Risks associated through not employing appropriate Controls and Measures?

7. To what extent did completing the Customer Matrix improve your understanding of the Agreements you have established with your Customers?

8. Overall please rate how useful you believe the activity of applying the Customer Matrix to your Organisation/Business Unit has been?

9. Are there any other comments you wish to make regarding the Customer Matrix activity in particular, or the entire activity in general? If so please add them within the space below:
Supplier Matrix Instrument Statements
The Supplier Matrix Instrument consists of eight statements:

1. To what extent did completing the Supplier Matrix improve your understanding of your Organisation/Business Unit Customers?

2. To what extent did completing the Supplier Matrix improve your understanding of the general Services provided by your Suppliers?

3. To what extent did completing the Supplier Matrix improve your understanding of the Services provided by each Supplier?

4. To what extent did completing the Supplier Matrix improve your understanding of the Controls employed against each Supplier?

5. To what extent did completing the Supplier Matrix improve your understanding of the Measures associated with the Services provided?

6. To what extent did completing the Supplier Matrix improve your understanding of the potential Risks associated through not employing appropriate Controls and Measures?

7. To what extent did completing the Supplier Matrix improve your understanding of the Agreements you have established with your Suppliers?

8. Overall please rate how useful you believe the activity of applying the Supplier Matrix to your Organisation/Business Unit has been?

9. Are there any other comments you wish to make regarding the Supplier Matrix activity in particular, or entire activity in general? If so please add them within the space below:

Relationship Matrix Instrument Statements
The Relationship Matrix Instrument consists of five statements:

1. To what extent did completing the Relationship Matrix improve your understanding of your Organisation/Business Unit Suppliers?

2. To what extent did completing the Relationship Matrix improve your understanding of the Services provided by your Suppliers?

3. To what extent did completing the Relationship Matrix improve your understanding of the Services you receive in the context of those you deliver?

4. To what extent did completing the Relationship Matrix assist you to look at Service Delivery in a different context?

5. Overall please rate how useful you believe the activity of applying the Relationship Matrix to your Organisation/Business Unit has been?

6. Are there any other comments you wish to make regarding the Relationship Matrix activity in particular, or the entire activity in general? If so please add them within the space below:
**Agreement Template Instrument Statements**
The Agreement Template Instrument consists of five statements:

1. To what extent did completing the Agreements Template improve your understanding of your Organisation/Business Unit Agreements they have established with Customers and/or Suppliers?

2. To what extent did completing the Agreements Template improve your understanding of the aspect of each Agreement you have in place (Customer or Supplier)?

3. Actively discussing your Organisation/Business Units Agreements was a worthwhile activity?

4. To what extent was identifying the Measures associated with the aspects of your Organisation/Business Units Agreements a worthwhile activity?

5. Overall please rate how useful you believe the activity of applying the Agreements Template to your Organisation/Business Unit has been?

6. Are there any other comments you wish to make regarding the Agreements Template activity in particular, or the entire activity in general? If so please add them within the space below:

**Controls Template Instrument Statements**
The Controls Template Instrument consists of five statements:

1. To what extent did completing the Controls Template improve your understanding of your Organisation/Business Unit Controls?

2. To what extent did completing the Controls Template improve your understanding of the owner of each Control?

3. To what extent did completing the Controls Template improve your understanding of the type of Controls in place?

4. To what extent did completing the Controls Template improve your understanding of how you Measure the effectiveness of each Control?

5. Overall please rate how useful you believe the activity of applying the Controls Template to your Organisation/Business Unit has been?

6. Are there any other comments you wish to make regarding the Controls Template activity in particular, or the entire activity in general? If so please add them within the space below:
**Risk Mitigation Template Instrument Statements**
The Risk Mitigation Template Instrument consists of six statements:

1. To what extent did completing the Risk Mitigation Template improve your understanding of your Organisation/Business Unit Risks?

2. To what extent did completing the Risk Mitigation Template assist you in ranking your identified Risks?

3. To what extent did completing the Risk Mitigation Template improve your understanding of the Mitigations required to reduce the identified Risks?

4. To what extent did completing the Risk Mitigation Template help you to understand the projected Risk score after Mitigation has been implemented?

5. Previously, to what extent had Risk been considered in the context of your Customer or Suppliers?

6. Overall please rate how useful you believe the activity of applying the Risk Mitigation Template to your Organisation/Business Unit has been?

7. Are there any other comments you wish to make regarding the Risk Mitigation Template activity in particular, or entire activity in general? If so please add them within the space below:

---

**Measurement Template Instrument Statements**
The Measurement Template Instrument consists of seven statements:

1. To what extent did completing the Measurement Template improve your understanding of your Organisation/Business Unit Measures?

2. To what extent did completing the Measurement Template improve your understanding of how well defined the Measures were within your Organisation/Business Unit?

3. To what extent did completing the Measurement Template help you to appropriately review the measures within your Organisation/ Business Unit?

4. To what extent did completing the Measurement Template improve your understanding of the measurement gap within your Organisation/ Business Unit?

5. To what extent did completing the Measurement Template improve your understanding of the Measures associated with the Services you provide and/or receive?

6. To what extent did completing the Measurement Template improve your understanding of the suite of measures you have in place?

7. Overall please rate how useful you believe the activity of applying the Measurement Template to your Organisation/Business Unit has been?

8. Are there any other comments you wish to make regarding the Measurement Template activity in particular, or the entire activity in general? If so please add them within the space below:
Appendix I

**Overall Activity Instrument Statements**

The Overall Activity Instrument consists of four statements:

1. To what extent did completing the Suite of Matrices give you a better understanding of your Organisation/Business Unit?
2. To what extent did you find completing the Suite of Matrices a beneficial activity?
3. How happy would you be to participate in this type of activity again?
4. How likely are you to recommend this type of activity to others?
5. If you would like to make a comment with respect to the answers you gave above, please add them within the space below:

**Team Lead Instrument Statements**

The Team Lead Instrument consists of six statements:

1. As the Team Leader, applying the Suite of Matrices, I gained a better understanding of the Team’s perceptions of the Organisation/ Business Unit?
2. As the Team Leader, applying the Suite of Matrices, I believe the team gained a better understanding of the Organisation/ Business Unit?
3. As Team Leader, I would be happy to sponsor in this type of activity again?
4. As Team Leader, I would recommend this type of activity to others?
5. Overall, please rate the Facilitation you received during the Customer-Supplier Activity?
6. Overall, please rate how helpful/useful you believe the applying the Suite of Matrices to your Organisation/Business Unit has been?
7. If you would like to make a comment with respect to the answers you gave above, please add them within the space below:

**Facilitator Instrument Statements**

The Facilitator Instrument consists of five statements:

1. The Customer-Supplier Activity you undertook, added value to the Organisation/Business Unit concerned?
2. The Teams you facilitated benefited from applying the Suite of Matrices?
3. You could see a beneficial difference to Individuals after they had participated in the Customer-Supplier Activity?
4. You would recommend the appropriate use of the Customer-Supplier Matrix for other teams?
5. You would recommend the appropriate use of the Customer-Supplier Matrix for your own team?
6. If you would like to make a comment with respect to the answers you gave above, please add them within the space below:

Case Study Toolset Instrument (Example) and Instrument Statements. Source: Author.
## Appendix J

### Cross-case Matrix Extract (Service Type)

<table>
<thead>
<tr>
<th>No</th>
<th>No.</th>
<th>Theoretical Themes</th>
<th>Case Study Organisation-Reviewer Ranking</th>
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<tbody>
<tr>
<td></td>
<td>Continuum-Service Type</td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td></td>
<td>Case Study</td>
<td>D</td>
<td>F</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>Organisations do not always understand the full context of the supply chain model</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>Organisations do not clearly understand who their customers are and the differences between them</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>Organisations do not always understand who their suppliers are and their context to customer delivery</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>Organisation do not always understand how they have described service quality to their customer be they external or internal</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>Organisation speak, but do not act with the customer in mind</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>23</td>
<td>The power of customer perception is not understood</td>
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</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Measurement, although described and articulated data is very rarely translated into information and used to improve mission, visions or purpose</td>
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</tr>
<tr>
<td>8</td>
<td>11</td>
<td>Not all controls have adequate measures in place to quantify the effectiveness of that control</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>12</td>
<td>Not all agreements have adequate measures in place to quantify the effectiveness of that agreement</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>17</td>
<td>Measures are rarely set to describe when visions; missions or purpose statements have been achieved</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>18</td>
<td>Organisation describe vast measurement suites but are not balanced nor understood as a totality</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>19</td>
<td>Measures are not articulated</td>
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</tr>
<tr>
<td>13</td>
<td>21</td>
<td>Measures are taken at corporate level but not at local – what actually matters to the business area</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>22</td>
<td>Soft measures are believed to be hard</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Theoretical Themes</td>
<td>Case Study Organisation-Reviewer Ranking</td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>--------------------</td>
<td>------------------------------------------</td>
<td></td>
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<tr>
<td></td>
<td><strong>Continuum-Service Type</strong></td>
<td><strong>Group 1 Softer Service Provision</strong></td>
<td><strong>Group 2 Self-assessed as neither Soft nor Hard Service Provision</strong></td>
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<td></td>
<td>Case Study</td>
<td>D</td>
<td>F</td>
</tr>
<tr>
<td>2</td>
<td>Local practices not aligning with working Mission description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Local practices not aligning with visionary description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>A high proportion of the controls used by business areas are not owned by those business areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Risks are described but not mitigated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Inferred communication not grounded nor tested.</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Leadership normally looks upwards and outward, but sometimes ignores the downward and inward view</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Strategies, formal (written) or informal (implied by actions) do not always align to the vision and vision articulated goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Vision and mission are rarely described in the terms of what we are to be undertaking in the near future, the description of a working mission or purpose.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Mission and Visions are articulated but are rarely detail, what it will mean when implemented</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corroboration Key:**

2  3  4

Cross-case Matrix: Service Type Continuum. Source: Author.
## Appendix J

### Cross-case Matrix Extract (Customer Facing)

<table>
<thead>
<tr>
<th>No</th>
<th>Theoretical Themes</th>
<th>Case Study Organisation-Reviewer Ranking</th>
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<tbody>
<tr>
<td></td>
<td><strong>Continuum-Customer Facing</strong></td>
<td>Group 1 Entirely Internal Customer Base</td>
</tr>
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<td></td>
<td>Case Study</td>
</tr>
<tr>
<td>7</td>
<td>Organisations do not always understand the full context of the supply chain model</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Organisations do not clearly understand who their customers are and the differences between them</td>
<td></td>
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<td>9</td>
<td>Organisations do not always understand who their suppliers are and their context to customer delivery</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Organisation do not always understand how they have described service quality to their customer be they external or internal</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Organisation speak, but do not act with the customer in mind</td>
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<td>Soft measures are believed to be hard</td>
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### Theoretical Themes

#### Case Study Organisation

**Reviewers Ranking**

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## Appendix J

### Cross-case Matrix Extract (Customer Base)

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<td>Organisations do not always understand the full context of the supply chain model</td>
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<td>Measures are rarely set to describe when visions; missions or purpose statements have been achieved</td>
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<td>Organisation describe vast measurement suites but are not balanced nor understood as a totality</td>
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<td>Measures are not articulated</td>
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### Theoretical Themes

#### Continuum-Customer Base

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<td>Risks are described but not mitigate</td>
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|    | Inferred communication not grounded nor tested.                                  |    |    |    |    |    |    |    |
| 5  | Leadership normally looks upwards and outward, but sometimes ignores the downward and inward view |    |    |    |    |    |    |    |
| 6  | Strategies, formal (written) or informal (implied by actions) do not always align to the vision and vision articulated goals |    |    |    |    |    |    |    |
| 15 | Vision and mission are rarely described in the terms of what we are to be undertaking in the near future, the description of a working mission or purpose. |    |    |    |    |    |    |    |
| 16 | Mission and Visions are articulated but are rarely detail, what it will mean when implemented |    |    |    |    |    |    |    |

#### Corroboration Key:

| 2 | 3 | 4 |

Cross-case Matrix: Customer Base Continuum. Source: Author.
### Appendix J

**Cross-case Matrix Extract (Company Perspective)**

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<td>Organisations do not always understand who their suppliers are and their context to customer delivery</td>
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<td>Organisation do not always understand how they have described service quality to their customer be they external or internal</td>
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<td>14</td>
<td>Organisation speak, but do not act with the customer in mind</td>
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**COMMENT**

<p>| 4  | Measurement, although described and articulated data is very rarely translated into information and used to improve mission, visions or purpose |    |    |    |    |    |    |    |
| 11 | Not all controls have adequate measures in place to quantify the effectiveness of that control |    |    |    |    |    |    |    |
| 12 | Not all agreements have adequate measures in place to quantify the effectiveness of that agreement |    |    |    |    |    |    |    |
| 17 | Measures are rarely set to describe when visions; missions or purpose statements have been achieved |    |    |    |    |    |    |    |
| 18 | Organisation describe vast measurement suites but are not balanced nor understood as a totality |    |    |    |    |    |    |    |
| 19 | Measures are not articulated                                                      |    |    |    |    |    |    |    |
| 21 | Measures are taken at corporate level but not at local – what actually matters to the business area |    |    |    |    |    |    |    |
| 22 | Soft measures are believed to be hard                                             |    |    |    |    |    |    |    |</p>
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<td>Local practices not aligning with visionary description</td>
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<td>A high proportion of the controls used by business areas are not owned by those business areas.</td>
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Cross-case Matrix: Company Perspective Continuum. Source: Author.
## Appendix J

### Cross-case Matrix Extract (BE Rating)

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<td>Organisations do not always understand the full context of the supply chain model</td>
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<td>23</td>
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### Corroboration Key:

2 3 4

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Appendix K

The Research Framework

The Research Framework (Pictorial) as Illustrated at Chapter 2, Figure 2-13, p. 55. Source: Author.

**Research Framework Pilot Activity (Case Xa).**

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1. Testing DaCfA Toolset (Matrices & Templates) in Case Study Organisations.
Research Framework Step 2 (Concerned with the DaCfA Toolset).

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# Research Framework Step 3 (Concerned with the DaCfA Toolset)

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## Research Framework Steps A and B (Concerned with the Theoretical Themes)

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**Research Framework Step C (Concerned with the Theoretical Themes).**

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### Research Framework Step 4D (Concerned with both the DaCfA Toolset and the Theoretical Themes)

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4D. Conclude on Research Objectives DaCfA Toolset and Theoretical Themes.

The Research Framework. Source: Author.
Appendix L

Case Study Review – Theme Identification

Brief: you have been presented with a number of Case Studies / Activity Feedback Reports / Feedback Presentations, whilst you are reviewing that material you are requested to consider the themes you can identify within that material and capture those themes in the table below.

You might consider that there is a pattern concerned with the “organisation not fully understanding the context of what or why they are taking particular measurement”, the theme keyword would be ‘Measurement’ and the description of the context of that theme might be “lack of understanding”.

I would be grateful if you would return the completed Theme Identification sheet(s) with your comments on the Case Studies.

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Appendix M

Case Xa Pilot Activity

The DaCfA Model and Toolset (matrices and templates) were designed and developed by the Researcher, during the Pilot Activity (Case Xa) 28 phase (from 2001 to 2005) using an active research methodology within the Case X environment. At the same time a number of initial descriptions for the Theoretical Themes were also identified. The developed and tested DaCfA Model and Toolset are described in Chapter 4.

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Figure M-1: Pilot Activity (Case Xa). Source: Author.

The Pilot activity (Figure M-1) within Case Xa was concerned with the application of a ServQual survey activity involving in circa 20 internal business areas, all of which carried out some form of customer/supplier identification activity to ensure that the survey reached the correct audience. The developed DaCfA Model and Toolset brought forward from this activity into this research is seen as the use of Grounded Theory.

At the end of this pilot activity (Case Xa) the Customer/Supplier Matrices had been Grounded in the form of the DaCfA Model and Toolset (suite of eight templates and matrices) and Theoretical Themes had started to be framed from themes identified through the Case Xa activity, these were further developed through the Literature Review.

The DaCfA Model developed was grounded in the experience gained applying Servqual in the Case X environment which gave clear indications of a gap in the understanding of the internal supply-chain. Although DaCfA Model and Toolset was intended for internal supply-chain identification (within the Case X environment), it became evident as the research was presented externally (Portsmouth Business School Research Conference 2008 and CQI Southern Branch 2010 are examples), that the model was applicable

28 For the purpose of clarity this pilot activity phase within the Case X environment is labelled as Case Xa, which is outside the scope of this research and is treated as a secondary data source.
to situations outside the original sphere of concept. This, it is argued fits within the Bryman & Bell (2007, p.428) citation from Argyris, Putnam & Smith (1985); where they describe action research as the “experimentation on real problems”, and the outcomes are designed to assist in their solution.

The development of the DaCfA Model and Toolset was therefore through an action research process, which was aligned to the characteristics cited by Bryman & Bell (2007, p. 428) from (Eden & Huxham, 1996).

**GROUNDED THEORY**

The Oxford Dictionary (2001) defines Theory as a “supposition or a system of ideas intended to explain something, especially one based on general principles independent of the thing to be explained”. Strauss and Corbin (1998, p. 15) describe grounded theory as a “set of well-developed concepts related through statements of relationship, which together constitute an integrated framework that can be used to explain or predict phenomena”.

Grounded theory methodology takes the form of theory emerging with minimal research intervention from what is defined as the ‘actors’ (the participants). It is described as the process of constant comparison, ‘coding’ an analysis of interviews and observational data that leads to the emergence of theory grounded in and from these data sets.

Gephart (2003, p. 116) argues that grounded theory is often based upon the analysis of the meanings produced in real life contexts using field notes. These include the ‘thick description’ of verbal behaviour for data, thus grounded theory emerged from the fieldwork tradition that involved careful qualitative research. Furthermore, that the work of Glaser & Strauss, and Strauss & Corbin sought to legitimise the developing field of the ‘case study’ approach.

The prime purpose of ‘coding’ either within the Glaser & Strauss (1967), Strauss & Corbin (1997) or the Glaser (1999) approaches is to plan and ensure that systematically gathered field data is obtained. There are three main categories of data in grounded theory:

- Field notes (be that through observation, meetings, and so on.);
- Interview data (interviews information in the form of notes, recording and transcripts); and
- Existing documentation (review of literature, memos, reports and artefacts).

It is the latter (existing documentation) source of grounded theory data (the DaCfA Model and Toolset as well as the initial indication of themes) identified during the Case Xa activity that is being utilised as part of this Research.

Douglas (2003, pp 47-48.) articulates that ‘coding’ is the result of raising questions and giving provisional answers about categories and their relationship to each other; three types of ‘coding’ are articulated:
Open ‘coding’, analysis of the data to which labels are fixed to types of events, functions, relationships and contexts. This involves the close-scrutiny of the data; comparing and contrasting similar incidents;

Axial ‘coding’ follows open ‘coding’. Its aim is to identify relationships between open codes for the development of Core or Major codes; and

Selective ‘coding’ requires the selection of the focal core code (the central theme from the axial ‘coding’ process).

For qualitative researchers, the purpose of coding is to identity the emerging concepts from the data that can be utilised in the analysis of a ‘phenomenon’ or in the theory building process, Catterall & Maclaran (1996, p. 29).

Teddlie & Tashakkori (2009, p. 70) describe grounded theory as the “methodology for theory development, grounded in narrative data that are systematically gathered and inductively analysed, and thereby inductive in nature”. The process of induction, described by Bryman & Bell (2007, p. 14), is to draw generalizable inference out of observation, that is observations/findings lead to the ‘developed’ theory. Parker & Roffey (1997, pp. 218-220) describe the process of arriving at a grounded theory as the constant interplay between the researcher and the data, this interplay is articulated as the use of induction, deduction and verification.

This Research fits within the Bryman & Bell (2007, p. 14), Parker & Roffey (1997, pp. 218-220) and Teddlie & Tashakkori (2009, p. 70) articulation of theory development, and is akin to the Strauss & Corbin (1998, p. 12) description of Grounded Theory “theory that is derived from data systematically gathered and analysed through the research process”. The initial concept of the theory of this research that organisations or business units, do not fully understand the customer/supplier relationship within their ‘business’, particularly those of the internal supply-chain, was initially conceptualised during ServQual workshops at Case Xa, where teams struggled to answer three ‘simple’ questions:

1. Who are your customers?
2. What services do you provide to them? and
3. How do you currently measure the level of service quality?

Based on this initial theory, the research framework, Chapter 2 (Figure 2-13, p. 55) was designed with each element of the framework devised to reduce or eliminate bias, but with the flexibility to be adaptive as the research path dictated.

It is therefore argued that this Research Project utilised the concept of grounded theory in the articulation of the gap in customer/supplier relationship knowledge, particularly when concerned with the internal supply-chain and led to the development of the DaCfA Model Chapter 4 (Figure 4-2, p. 97) and the DaCfA Model and Toolset the further development and testing of which are the primary subjects of this Thesis.

Case Xa Pilot Activity Overview. Source: Author.
Appendix N

Form UPR16 - Research Ethics Review Checklist

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<td>Student Name:</td>
<td>Peter Robert Dack</td>
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<tr>
<td>Department:</td>
<td>PBS</td>
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<tr>
<td>First Supervisor:</td>
<td>Dr Debbie Reed</td>
</tr>
<tr>
<td>Start Date:</td>
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| Title of Thesis:                              | Developing a Customer-focused Approach (DaCIA) |

| Thesis Word Count:                            | 77,164 (inc. References/Bibliography (at 7,151 words) but excluding Appendices). |

If you are unsure about any of the following, please contact the local representative on your Faculty Ethics Committee for advice. Please note that it is your responsibility to follow the University’s Ethics Policy and any relevant University, academic or professional guidelines in the conduct of your study.

Although the Ethics Committee may have given your study a favourable opinion, the final responsibility for the ethical conduct of this work lies with the researcher(s).

UKRIO Finished Research Checklist:
(If you would like to know more about the checklist, please see your Faculty or Departmental Ethics Committee rep or see the online version of the full checklist at: http://www.ukrio.org/what-we-do/code-of-practice-for-research/)

- Have all of your research and findings been reported accurately, honestly and within a reasonable time frame? YES/NO
- Have all contributions to knowledge been acknowledged? YES/NO
- Have you complied with all agreements relating to intellectual property, publication and authorship? YES/NO
- Has your research data been retained in a secure and accessible form and will it remain so for the required duration? YES/NO
- Does your research comply with all legal, ethical, and contractual requirements? YES/NO

*Delete as appropriate
**Student Statement:**

I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s)

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<th>Ethical review number(s) from Faculty Ethics Committee (or from NRES/SCREC):</th>
<th>Case E17 (November 2005)</th>
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<td>Date: 4th February 2015</td>
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If you have not submitted your work for ethical review, and/or you have answered ‘No’ to one or more of questions a) to e), please explain why this is so:

| Signed: (Student) | Date: |

**UPR 16 (2011) – August 2011**

Completed Form UPR16 Research Ethics Review Checklist. Source: Author.
REFERENCES


References


References


BIBLIOGRAPHY

The following publications have been reviewed during this Research and have been referenced in previous drafts of the thesis, they are listed as avenues for further reading.


