

University Of Limerick

A new approach to customer value improvement through co-leadership, trust and methodology for increased organisational return on investment.

By

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Philosophy

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Abstract

In an era where economic turbulence is constant with many organisations rightsizing to remain competitive, customer value improvement (CVI) is central to organisational strategy. As a panacea for this customer value improvement or continuous improvement challenge, many excellence frameworks and improvement methodologies have guided organisations to performance improvement since the 1980s. Despite their popularity, numerous authors have reported inadequacies and have made calls for improvement. Consequently, the research aim for this study was to review customer value improvement with a view to developing and validating a new customer value improvement (CVI) framework and to provide deeper knowledge and understanding of customer value improvement for increased organisational return on investment ROI.

As part of the first strand of the literature review, a review of the effectiveness of the MBNQA Award and the EFQM Excellence Model was carried out. The second strand reviewed the effectiveness of Six Sigma. The third strand of the research reviewed the role of strategic quality and customer value. Combining these three research strands enabled the researcher to distil the key concepts for customer value improvement.

In order to address the research aim, a mixed methodology approach of survey and in-depth interview was used to answer the following questions: Q1. What are the key components of customer value improvement in organisations for increased ROI? Q2. How are these components of customer value improvement connected inside a customer value improvement framework? Q3. What knowledge is required by leaders and improvement specialists for effective adoption of organisational customer value improvement for increased ROI?

This doctoral study has made a significant contribution to the theory and practice of customer value improvement research. First, this study has developed and validated a new framework. Second, this study has provided deeper knowledge and understanding for organisational leaders and improvement specialists through work undertaken for three peer reviewed journals. Third, this study has validated (Conti 2011) assertions concerning the inadequacies of the existing excellence frameworks. Fourth, this study has extended the work of Maier (1955) on people performance models by validating a more comprehensive performance model. Finally, the empirical study demonstrates that this new validated CVI framework has practical application in all organisations looking to increase the ROI through customer value improvement.

Declaration of Originality

"I declare that my work entitled '**A new approach to customer value improvement through co-leadership, trust and methodology for increased organisational return on investment**' for the degree of Doctor of Philosophy, embodies the results of an original research programme and consists of an ordered and critical exposition of existing knowledge in a well-defined field.

I have included explicit references to the citation of the work of others or to my own work which is not part of the submission for this degree"

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Date:

Signature: _____

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List of Abbreviations

BB – Black Belt

BI – Business Intelligence

BEM – Business Excellence Model

CSF- Critical Success Factor

CTQ – Critical to Quality

CVI - Customer Value Improvement

DMAIC – Define-Measure-Analyse-Improve-Control

EFQM - European Foundation for Quality Management

HRM – Human Resource Management

KPI – Key Performance Indicators

MBNQA – Malcolm Baldrige National Quality Award

MBB - Master Black Belt

NIST – National Institute of Standards and Technology

PE – Performance Expectation

QMP- Quality Management Programmes

ROI - Return on Investment

SEM – Structural Equation Modelling

SQM – Strategic Quality Management

TPS – Toyota Production System

TQ – Total Quality

TQC - Total Quality Control

TQM - Total Quality Management

List of Publications

Paper 1:Heavey, C., Halliday, S.V., Gilbert, D. and Murphy, E. (2011), 'Enhancing performance: bring trust, commitment and motivation together in organisations' Journal of General Management, Vol. 36 (3).

Paper 2:Heavey, C. and Murphy, E. (2012), 'Integrating the Balanced Scorecard with Six Sigma', TQM Journal, Vol. 24 (2).

Paper 3:Heavey, C. and Murphy, E., (2012), 'A proposed co-operation framework for organisations and their leaders', Management Decision, Vol. 50 (6).

Paper 4:Heavey, C., Murphy, E. and Ledwith A., 'Introducing a new continuous improvement framework for increased organisational return on investment ' TQM Journal (Accepted for publication)

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Chapter One: Introduction

1.1 Introduction

This chapter details the overall context of the study. This chapter is organised in three parts. The first part outlines the background and rationale for the study. The second part outlines the research aims. The chapter concludes by outlining the overall thesis structure.

1.2 Background and rationale for the study

Today, organisations operate in a more challenging and increasingly complex business environment. The global marketplace is becoming more turbulent with organisations facing increasing challenges such as more demanding customers, increased competition, higher energy costs and the harsh consequences of a global recession. Improving and sustaining company performance is more important now than ever before. As a panacea for this challenge, many excellence frameworks and improvement methodologies have guided organisations to performance improvement since the late 1980s. Both the Malcolm Baldrige National Quality Award (MBQNA) and the European Foundation for Quality Management (EFQM) are two excellence frameworks that have provided organisations with a roadmap for improvement. These frameworks have enabled organisations improve the value that organisations bring to their internal and external customer. For example, by eliminating the occurrence of a particular defect through continuous improvement programmes, the organisation is improving the quality of the product that is being received by the next process (internal customer). Also, this improvement activity has the potential to increase the quality of the product that is being received by the external customer. *For the purposes of this study, organisational continuous improvement activity that is focused on improving internal and external customer value is deemed to be customer value improvement (CVI).* In addition to the excellence frameworks, organisations have adopted Six Sigma, Lean, Lean Six Sigma and in-house improvement methodologies for organisational customer value improvement.

Specifically, the Malcolm Baldrige National Quality Award's mission is to "improve competitiveness, quality, and productivity of U.S. organisations for the benefit of all citizens" (NIST 2012). Similarly, the European Foundation Quality Management Excellence Model is focused on "increasing the competitiveness of European Industry" (EFQM, 2012).

Six Sigma is an organisational approach to operational excellence that has been in existence since its inception at Motorola in the 1980s. Snee (2010) argues that Six Sigma works better than other improvement methodologies because it integrates "the human and process aspects of process improvements" (p. 11). In addition to Six Sigma, Lean has been adopted by a multitude of organisations. The combination of Lean and Six Sigma has also been introduced by many organisations, with lean focusing on waste reduction, and Six Sigma focusing on variation, defects and process evaluation (Antony, 2011).

Despite the popularity of the various improvement methodologies, numerous authors have reported inadequacies with the respective frameworks. For example, Taylor and McAdam (2003) contend that "BI initiatives, ISO9000, TQM and the BEM, focus on improving the quality of the product and the services provided or systems. Little cognisance is given to people" (p. 384). Similarly, Dror (2008) reports that "the excellence models do not offer any suggestions regarding the long-term programmes an organisation should adopt in order to achieve continuous improvement" (p. 587). Conti (2007), one of the founders of the EFQM excellence model, and a past VP of Corporate Quality at Olivetti Group, alludes to the extent of the problem by stating that "further innovation is needed in quality management, if we really want to pursue continuous organisational improvement" (p. 112). In a more recent article titled "No panaceas for organisational diseases, but better knowledge and systems thinking", Conti (2011) elaborates further on the type of innovation that is required:

"I believe that both the Malcolm Baldrige and the EFQM models had a good start but their evolution toward complete fitness models was restrained by their own initial success. They were conceived as the main instruments to contrast the Japanese quality offensive based substantially on defect rates reduction. Their focus was then mainly on "doing things right". So far so good. But, in order to

become fitness of/for purpose models they should have evolved to cover all the value generation activities. That did not happen because the emphasis was more on exploiting their success than on pursuing further innovation”

(p. 257)

Similarly, limitations have been reported by authors in relation to Six Sigma (e.g Antony, 2004; Coronado and Antony, 2002; Douglas et al, 2009; Goh et al, 2006; Hendricks and Kelbaugh, 1998; Jerome, 1999; Pepper and Spedding, 2010). For instance, Antony (2004) states: “I personally have experienced that senior management in many organisations view six sigma as another quality improvement initiative or flavour of the month (p. 303). In an era where cost reduction is central to organisational strategies, Goh et al’s (2006) limitation is relevant:

"A large amount of investment is required to train employees to be green belts, black belts, master black belts and so on"

(p. 238)

In summary, despite the popularity of the excellence frameworks and continuous improvement frameworks, numerous authors have reported inadequacies. In addition, Conti (2007) makes a call for further innovation in continuous improvement to incorporate all value generation activities. In summary, given all the inadequacies listed in the extant literature with respect to the EFQM Excellence Model, MBNQA and Six Sigma, in combination with Conti’s (2007) call for further innovation, the researcher believes that a study in this area is an appropriate topic for research.

1.3 Research aim and objectives

For this study, customer value improvement is related to excellence frameworks and improvement methodologies that are utilised by organisations to improve internal customer value and external customer value. For example, a Six Sigma project that aims to reduce defect occurrence inside the organisation is deemed to be an internal customer value improvement project. Similarly, a Six Sigma project that aims to reduce defect occurrence for the external customer is deemed to be an external customer value improvement project. The thesis aim is driven by the knowledge gap or inadequacies

that exists inside these excellence frameworks and continuous improvement methodologies that are being utilised by organisations to improve internal and external customer value. By choosing this topic, the research addressed the inadequacies of existing excellence frameworks, bridges the knowledge gap and answers Conti's (2007) call for further innovation in excellence frameworks.

In specific terms, the study aim addresses three areas:

1. To comprehensively explore customer value improvement with a view to the identification of the key components.
2. To develop and validate a new customer value improvement framework for increased organisational return on investment (ROI).
3. To provide in-depth knowledge for organisational leaders and improvement specialists on how customer value improvement can be adopted effectively inside the organisational setting.

In order to address the research aim, the study answers the following questions:

- Q1. What are the key components of customer value improvement in organisations for increased ROI?
- Q2. How are these components of customer value improvement connected inside a customer value improvement framework for increased ROI?
- Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of organisational customer value improvement?

By answering these questions, the study will develop and validate a new customer value improvement framework. Also, the thesis will provide a deeper knowledge of the core components of organisational customer value improvement.

The aim of this thesis is realised through a unique three strand literature review and a mixed methodology approach. The first strand reviews the effectiveness of the Malcolm Baldrige National Quality Award and EFQM Excellence model with the second strand

reviewing the effectiveness of the Six Sigma methodology. The third strand of the research reviewed the role of strategic quality and customer value.

The three-strand approach helped to distil the key concepts for process customer value improvement. Combining these three research strands resulted in the development of a new customer value improvement conceptual framework. The mixed methodology approach of survey and in-depth interview was used to validate the new customer value improvement framework.

1.4 Thesis scope

For this study, the scope of the excellence models and continuous improvement methodology research is confined to the Malcolm Baldrige National Quality Award, EFQM Excellence model and Six Sigma. The selection was based on their popularity in North America and Europe. Due to the ubiquitous nature of customer value improvement in business life, the scope of the empirical research study includes all industrial sectors. The researcher believes that this broad scope will provide richer insights for management decision-making.

1.5 Thesis Structure

This thesis is based on a “PhD by article” structure. The university guidelines on what is required for the award of a PhD by publication are:

“An article-based thesis refers to the format in which a number of research articles (usually between 3 and 5 articles), produced by the PhD candidate while a registered research student, are published or accepted for publication in peer-reviewed journals. It will usually comprise an introduction, including an explanation of the research question(s), the research subject, relevant literature and methodology, and a concluding chapter, in which the results of the research are summarised and discussed, are included. Alternatively, this may also be included in the form of an overall introductory chapter. The publications included in the thesis may include jointly written papers, although the candidate must normally be the principal author of a major part of the work.

------. The student should be the main author on at least 50% of the published work and should be clearly able to demonstrate in the thesis and examination that he/she is the primary investigator of the research findings”

(University of Limerick, 2011)

For this study, Colm Heavey is the main author for 100% of the published work.

Chapter Two: Literature Review

2.1 Introduction

The chapter is organised in five parts. First, the chapter reviews customer value. Second the chapter reviews the effectiveness of the Malcolm Baldrige National Quality Award and the European Foundation for Quality Management Excellence model. The third part reviews the effectiveness of Six Sigma. The rationale for the review of the MBNQA, EFQM and Six Sigma is that this literature review identifies the strengths and weaknesses of the existing frameworks and improvement methodology. The weaknesses represent a gap that can be addressed in a new customer value improvement framework. Similarly, the strengths can be integrated into a new framework. This effectiveness review is then followed by a section on the Balanced Scorecard, history of the quality movement and strategic quality. The Balanced Scorecard review provides insights into how the scorecard is connected to customer value improvement. This historical review of the quality movement provides insights into the strategic role that quality has played and the evolution that has taken place inside the quality movement. In addition, this review provides insight into the key components of customer value improvement. The final section on strategic quality provides further insights into the key components of customer value improvement.

2.2 Customer Value

Without the customer there is no business. Organisations exist because of the value that they bring to the customer. Therefore, it is of paramount importance that an organisation understands first, how value is defined and second, what the customer means by value. Conti (2010) provides further insights:

“Organisations’ fundamental mission is to put together people to generate value for defined categories of subjects (customers, users, stakeholder, the organisation itself). Not generic value, but value that will be appreciated by the target subjects, so that they will seek after it. Given the markets’ dynamism, value expectations change in

time and value propositions are bound to rapidly adapt to – or precede - market changes.”

(p. 357)

Despite the importance of value, difficulties can arise in defining value. For instance, de Chernatony et al, (2000) posit that this difficulty stems from the “subjectivity of value (Hardy (1987), variations between customers (Wilstrom and Normann, 1994), within customers (Parasuraman, 1997), between cultures (Assael, 1995), in different situations (Ravald and Gronroos, 1996), pre- and post-purchase (Gardial et al., 1994), and between tangible and intangible offerings (Nauman, 1995)” (p. 41). Also in line with Conti’s (2010) views, value perceptions change over time. Awareness of this difficulty will assist organisations in understanding challenges that arise in customer value identification and delivery. The question arises: How is value defined?

According to Porter (1985), value is concerned with “what buyers are willing to pay for” (p. 3). Naumann (1995) refers to customer value as “the ratio of benefits to the sacrifices necessary to obtain those benefits” (p. 102). So, in the case of an organisation receiving a high quality product in parallel with support services below the organisation’s expectation, the organisation may decide to cease business with the supplier as a consequence of the sacrifice element. This comparison between performance and expectation is central to business and has received a lot of attention in the literature (e.g Grönroos’s, 1982; Naumann, 1995; Parasuraman et al, 1985; Parasuraman et al., 1988; Zeithaml et al., 2009).

In line with Grönroos’s view (1982), Parasuraman et al. (1985) argues succinctly that one dimension of quality involves a “comparison between expectations and performance” (p. 42). Similarly, Zeithaml et al., (2009) identifies the customer gap as the “difference between customer expectations and perceptions”(p. 32). Naumann (1995) refers to this gap as the “reality gap” (p. 98). This “reality gap” is important for organisational customer value improvement. Consequently, it is of paramount importance that organisations identify the gap with a view to putting improvement programmes in place to close the gap. The performance-expectation gap can be identified using the performance-expectation (PE) grid presented in Figure 2.1. This performance expectation grid represents an adaptation of the performance importance

grid that was developed by Martilla and James (1977). For example, as outlined on Figure 2.1, output from a customer survey may report that hotel front desk service levels are not running at a standard that the customer is expecting. Specifically, questions detailed on Table 2.1 could be posed to hotel customers with respect to front desk service levels.

Analysis and evaluation of the customer value improvement grid on Figure 2.1 could form the basis for subsequent organisational customer value improvement programmes.

Table 2.1: Performance Expectation Sample Questions

	Question	Category
1	How would you rate the front desk service level?	Performance Question
2	Does the front desk service level meet your expectations?	Expectation Question
3	What changes if any are required in front desk service levels to meet your expectations? Please describe.	Performance-Expectation Gap Question

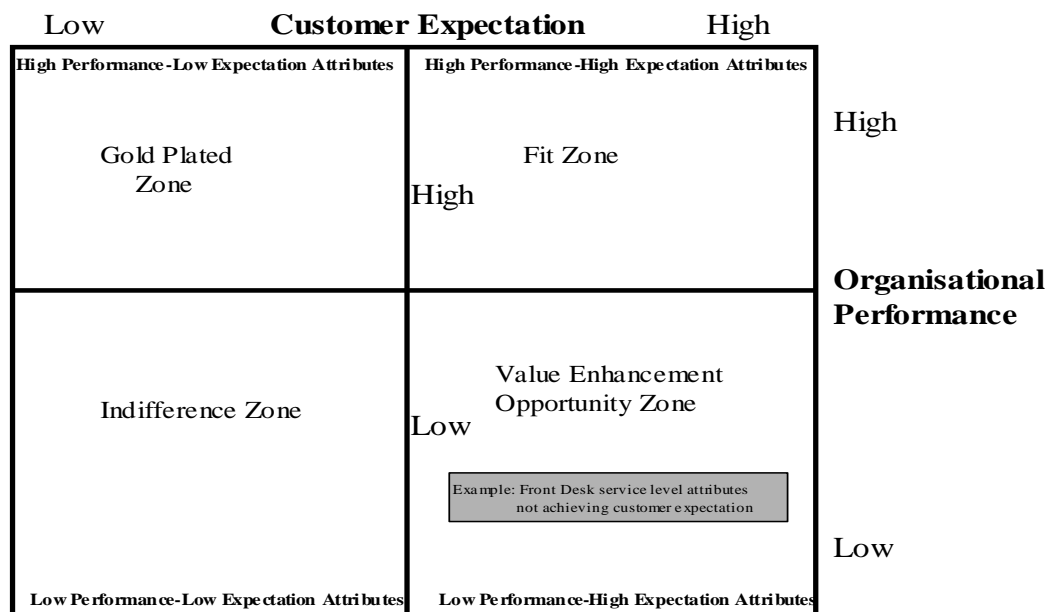


Figure 2.1: Performance Expectation Gap Analysis Grid for Customer Value

From an internal customer value perspective, this performance-expectation gap has relevance to all process led organisations. Asking the powerful question below can be the start of an exciting and rewarding journey in process customer value improvement.

What are performance-expectation gaps in the processes that my organisation executes?

In summary, organisations exist because of the value that they bring to customers. Therefore, it is critical that organisations understand their value proposition through the eyes of the customer and that they have programmes in place to identify and close any internal and external customer value gaps that exist in their processes. Also, for any revised customer value improvement framework or continuous improvement framework, this internal and external customer value improvement focus needs to be a central component.

The next section reviews excellence framework from an effectiveness standpoint. Adopting excellence models and improvement methodologies are paths that organisations have taken in relation to customer value improvement. The next section provides a review of Malcolm Baldrige National Quality Award (MBNQA) and the European Foundation for Quality Management (EFQM) excellence model.

2.3 Introduction to MBNQA and EFQM

The Malcolm Baldrige National Quality Award (MBNQA) and the European Foundation for Quality Management (EFQM) are two excellence models that have guided organisations to performance improvement. They have been in existence since the 1980s with Motorola (MBNQA Award winner, 1988) and Rank Zerox (EFQM Award Winner, 1992) winning the inaugural awards.

2.3.1 MBNQA

Specifically, the Malcolm Baldrige National Quality Awards mission is to “improve the competitiveness and performance of U.S. organisations” (NIST, 2012). Numerous authors (e.g. Dean and Bowen, 1994; Denney et al, 2009; Garvin, 1991; Hart et al, 1990) highlight the virtues of the MBNQA. For example, Garvin (1991) points out that the Malcolm Baldrige National Quality Award has become “the most important catalyst for transforming American business”(p. 80). Denney et al (2009) contend that the “criteria provide a structure to help align and focus all areas of an organisation with key stakeholder needs and expectations” (p. 40). In addition, the importance (Wisner and Eakins, 1994) of the MBNQA to multinational organisations is highlighted by the

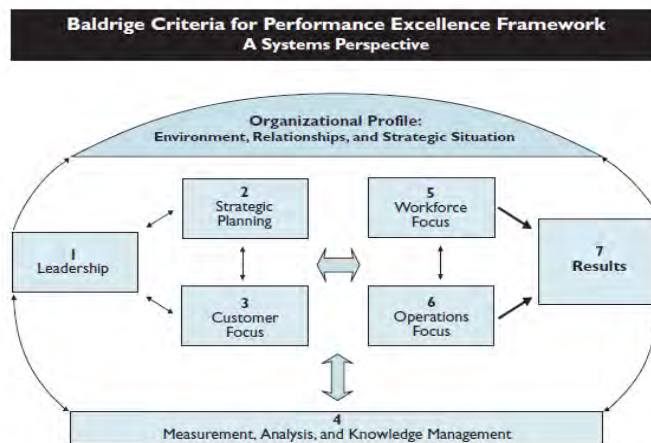
MBNQA winner’s list (e.g Motorola, Milliken and Co, Xerox, Federal Express, AT&T Transmission Systems Business Unit, Texas Instruments Defense Systems and Electronics Group, Ritz Carlton Hotel).

Dean and Bowen (1994) provide reasons for the popularity of the MBNQA:

“First, the conceptual framework underlying the award addresses the principal domains of TQ. Second, it has been repeatedly updated by a team of experts to reflect current thinking on TQ. Third, the award framework is not limited to a single quality perspective (e.g., Deming's or Juran's), but rather it incorporates a diversity of viewpoints”

(p. 397)

In addition to the views of Dean and Bowen (1994), the comprehensive nature of the framework on Figure 2.2 provides insights into the advantages of the MBNQA. The framework connects leadership to organisational results through the components of strategic planning, customer focus, workforce focus, operations focus and measurement, analysis and knowledge management. The framework is supported by an 88 page document that provides questions on how each component should be assessed by the organisation.



Source: NIST 2011–2012 Criteria for Performance Excellence

Figure 2.2: Baldrige Criteria for Performance Excellence Framework

The MBNQA highlights the importance of leadership, customer focus, results and people (workforce component). The leadership component provides the vision, strategic direction and people support to enable the results to be achieved.

Despite the popularity of the MBNQA for organisations, many experts question the effectiveness of the framework. For instance, Garvin (1991) reports, as outlined on Table 2.2 that “poor sales and earning growth have led critics to question whether the award is an accurate gauge of a company’s competitiveness (p. 81).

Table 2.2: MBNQA Strengths and Weaknesses

Strengths	Weaknesses
<p>There are several advantages to using the criteria. First, the conceptual framework underlying the award addresses the principal domains of TQ. Second, it has been repeatedly updated by a team of experts to reflect current thinking on TQ. Third, the award framework is not limited to a single quality perspective (e.g., Deming's or Juran's), but rather it incorporates a diversity of viewpoints (Dean and Bowen, 1994, p. 397)</p>	<p>Poor sales and earning growth have led critics to question whether the award is an accurate gauge of a company's competitiveness (Garvin, 1991, p. 81)</p>
<p>"The approach is remarkably comprehensive, breaking down quality into carefully defined areas" (Hart et al, 1990, p. 208)</p>	<p>In relation to a study on the MBNQA and the EFQM, Dror (2008) contends that "the excellence models do not offer any suggestions regarding the long-term programmes an organisation should adopt in order to achieve continuous improvement" (p. 587)</p>
<p>"In just four years, the Malcolm Baldrige National Quality Award has become the most important catalyst for transforming American business"(Garvin, 1991, p. 80)</p>	<p>Simms et al, (1991) states that "like a thermometer the award tells you what your fever is but it does not tell you how to get well (p. 136)</p>
<p>The value of the MBNQA is captured succinctly by Denney et al (2009): "The criteria provide a structure to help align and focus all areas of an organisation with key stakeholder needs and expectations" (p. 40).</p>	<p>In relation to the MBNQA implementation, Easton (1993) reports that "there is often very little correlation of process measures with customer satisfaction, or of upstream measures with downstream measures" (p. 43).</p>
<p>The framework connects leadership to the organisational results through the components of strategic planning, customer focus, workforce focus, operations focus and measurement, analysis and knowledge management.</p>	<p>"I believe that both the Malcolm Baldrige and the EFQM models (, 2010) EFQM, 2010) had a good start but their evolution toward complete fitness models was restrained by their own initial success Their focus was then mainly on "doing things right". So far so good. But, in order to become fitness of/for purpose models they should have evolved to cover all the value generation activities" (Conti, 2011, p. 257).</p>
<p>Hendricks and Singhal (1997) provide strong empirical "evidence that firms that have won quality awards outperform a control sample on operating income based measures" (p. 1271).</p>	<p>" critics note that the award does not reflect outstanding or even exceptionally good product quality" (Garvin, 1991, p. 80)</p>
	<p>"The western quality awards such the Malcolm Baldrige National Quality Award and the European Quality Award have followed this lead (Deming Quality Award), giving little perspective clues as to how an organisation should proceed from where it is now to achieve the promised nirvana!" (van der Wiele et al, 2006, p. 372)</p>

Simms et al (1991) further adds that "like a thermometer the award tells you what your fever is but it does not tell you how to get well" (p. 136). Dror (2008) provides some insight into the answer as to why MBNQA does not tell you how to get well. Dror

(2008) reports that business models like the MBNQA and the EFQM “do not offer any suggestions regarding the long-term programmes an organisation should adopt in order to achieve continuous improvement” (p. 587). Conti (2011), one of the founders of the EFQM award also expresses concern about the effectiveness of the MBNQA award:

“I believe that both the Malcolm Baldrige and the EFQM models had a good start but their evolution toward complete fitness models was restrained by their own initial success Their focus was then mainly on “doing things right”. So far so good. But, in order to become fitness of/for purpose models they should have evolved to cover all the value generation activities”.

(p. 257)

Overall, the MBNQA has been adopted successfully by many organisations. From a continuous improvement perspective, the key components of leadership, strategic planning, customer focus and workforce or people focus combine to generate the results. From a weakness vantage point, the literature review describes a gap that the MBNQA does not provide any guidance on how to improve (e.g Dror 2008; Simms 1991). Consequently, the researcher contends that this gap can be filled by incorporating an improvement methodology component inside a new conceptual framework.

2.3.2 European Foundation Quality Management Excellence Model

Similar to the MBNQA mission, the European Foundation Quality Management Excellence Model is focused on improving the competitiveness of European Industry and on “closing the gap of competitiveness between Europe and the USA and Japan” (EFQM, 2010). In specific terms, the EFQM model was born as a result of 14 CEOs joining “forces in 1988 to develop a management tool that would increase the competitiveness of European organisations” (EFQM, 2010). According to the EFQM website (2010), the excellence model has been implemented in over 30,000 organisations. McAdam and Welsh (2000) reports “that two-thirds of European-based organisations practising in self-assessment are using this model”(p. 121). As is the case with the MBNQA (See Table 2.2) divided opinion exists on the effectiveness of the EFQM excellence model (See Table 2.3).

George et al (2003) provides insights into the reasons for its effectiveness:

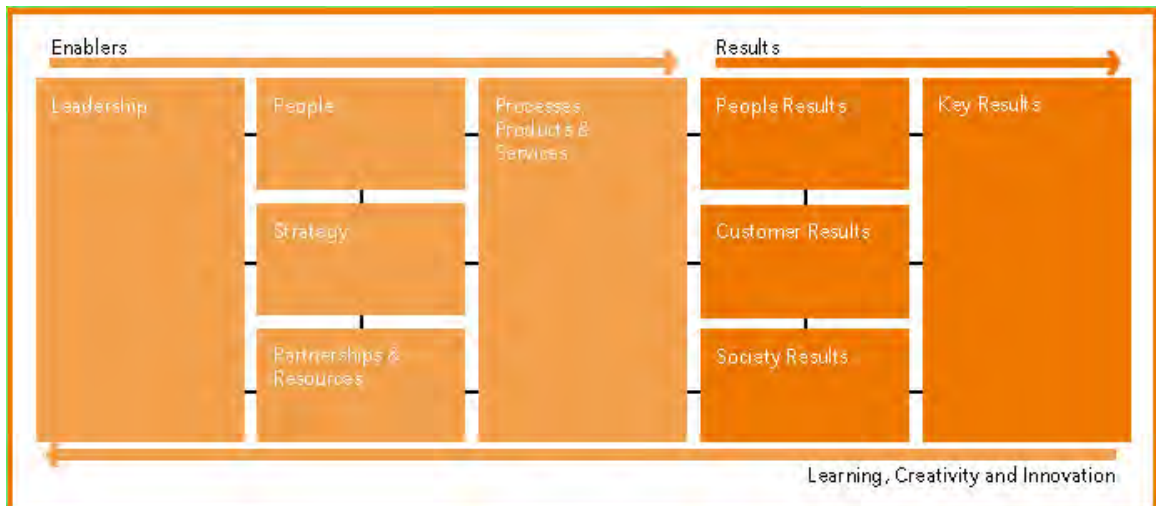
“The model is based on the premise that excellent results with respect to performance, customers, people and society are achieved through effective leadership, sound people management and development, effective use of partnerships and resources, clear and well directed policy, strategy and effective processes”.

(p. 122)

Table 2.3: EFQM Excellence Model Strengths and Weaknesses

Strengths	Weaknesses
<p>McAdam and Welsh (2000) report that commentators have pointed that one of the advantages of the EFQM is that it has been established on the basis of two existing total quality frameworks, the Malcolm Baldrige Award and the Deming Prize and “has learned from the operation of both processes” (p. 121).</p>	<p>“Samuelsson and Nilsson (2002) argue that one of the dilemmas in implementing the EFQM Excellence Model is whether to adjust the criteria of the model to suit the organisation” cited in (Davies et al, 2007, p. 383)</p>
<p>“Various approaches to applying the model, emphasising its advantages in the area of total quality management (TQM) are well documented in the literature. These advantages include improved approaches, measurement and benchmarking” (McAdam and O’Neill, 1999, p. 191)</p>	<p>“McAdam and Welsh (2000) note that the application of the model usually involves negotiation over how it should be used, how key terms should be construed and whether particular elements are even appropriate” (cited in Davies et al, 2007, p. 383)</p>
<p>“EFQM case studies confirms many successes across most European countries” (Dale et al, 2000, p. 5).</p>	<p>“The BI initiatives, ISO9000, TQM and the BEM , focus on improving quality of the product and the services provided or systems. Little cognisance is given to people” (Taylor and McAdam, 2003, p. 384)</p>
<p>Used as it was intended the EFQM excellence model provides for managing and continuous improvement in an organisation (Sandbrook, 2001, p. 84)</p>	<p>“The EFQM criteria have been described as vague and underrated in the areas of improvement, innovation, and supplier partnership strategies (Zhashemi and Ho, 1999)” (p. 44) cited in Bassioni et al (2004).</p>
<p>The EFQM “is widely recognised as a representative theory to improve traditional total quality management (TQM) by expanding the narrow quality-oriented concept into a holistic management concept” (Kim et al, 2010, p. 684)</p>	<p>In a paper titled “A critical review of the excellence model (EFQM) applied to further education college”, McAdam and Welsh (2000) reports that “A research project conducted in 1996 by the London and Manchester Business School highlighted that the majority of respondents believed that a gap of at least four years was required between introduction and benefit realisation. Zink (1995, p. 86) states: “International experience shows that a period of between five and ten years is a realistic perspective.” (p. 123).</p>
<p>“The model is based on the premise that excellent results with respect to performance, customers, people and society are achieved through effective leadership, sound people management and development, effective use of partnerships and resources, clear and well directed policy, strategy and effective processes”. George et al, 2003, (p. 122)</p>	<p>“The EFQM should be concerned with the spread of the TQM concept rather than cosmetic and peripheral changes to the excellence model” (Dale et al, 2000, p. 5)</p>
<p>Caffyn (1999) reports that “more useful to individual companies are instruments developed in connection with national or international quality awards, notably the USA’s Malcolm Baldrige National Quality Award introduced in 1987, and the European Quality Award (EQA) launched four years later (EFQM, 1998;Garuin, 1991). These awards and many other similar ones (e.g. Japan’s Deming Prize, Australian Quality Award, UK Quality Award) provide companies with an opportunity to assess themselves against an external framework or model which includes reviewing progress of the improvement process (Evans, 1996; Ghobadian and Woo, 1996)” p. 1141</p>	<p>But, in order to become fitness of/for purpose models they (EFQM/MBNQA) should have evolved to cover all the value generation activities. That did not happen because the emphasis was more on exploiting their success than on pursuing further innovation” (Conti, 2010, p. 257)</p>
<p>Boulter et al’s (2013) empirical study confirms that, “despite evident and marked differences in company structures and institutional environments between North America and Europe, stronger performance is again achieved by the TQM-oriented award winning companies” (p. 197).</p>	<p>With respect to the implementation of the EFQM in a sample of UK universities, Davies et al (2007) reports that the cultural dimension needs to be considered during the implementation of the EFQM.</p>

McAdam and Welsh (2000) report that commentators have pointed that one of the advantages of the EFQM is that it has been established on the basis of two existing total quality frameworks, the Malcolm Baldrige Award and the Deming Prize and “has learned from the operation of both processes” (p. 121). Similarly, Dale et al (2000) write that “EFQM case studies confirms many successes across most European countries” (p. 5). Further evidence of the effectiveness of the EFQM excellence model is provided by Hardjono et al (1996) through case studies that detail the successes of 35 European companies. From an empirical standpoint, Boulter et al’s (2013) study confirms that, “despite evident and marked differences in company structures and institutional environments between North America and Europe, stronger performance is again achieved by the TQM-oriented award winning companies” (p. 197).



Source: EFQM Website

Figure 2.3: EFQM Excellence Model

Similar to the MBNQA, the comprehensive nature of the framework on Figure 2.3 provides insights into the advantages of the EFQM excellence model. The framework connects results through the enablers of leadership, people, strategy, partnerships & resources and processes, products & services. The framework is supported by a sixty nine page assessment document. Despite the popularity of the EFQM Excellence model, many experts also question the effectiveness (See Table 2.3) of this excellence model.

Davies et al., (2007) reports on “McAdam and Welsh (2000) views:

“McAdam and Welsh (2000) note that the application of the model usually involves negotiation over how it should be used, how key terms should be construed and whether particular elements are even appropriate”

(p. 383)

On the same theme of model application, Davies et al. (2007) adds:

“Samuelsson and Nilsson (2002) argue that one of the dilemmas in implementing the EFQM Excellence Model is whether to adjust the criteria of the model to suit the organisation”.

(p. 383)

The EFQM self-assessment documentation does not provide answers to any of these questions.

With respect to the benefits of the EFQM self-assessment tool, the researcher is mindful that the EFQM self-assessment provides value to organisations that are focused on self-assessment. However, self-assessment is the easy part. The difficult part for organisations is in deciding how to make the most effective and efficient improvements. So similar to Simms et al (1991) assertions on the MBNQA, the researcher believes that EFQM “tells you what your fever is but it does not tell you how to get well” (p. 136).

Conti (2007) raises further questions with respect to the EFQM framework. Conti (2007) states that “further innovation is needed in quality management, if we really want to pursue continuous organisational improvement” (p. 112). Conti (2007) adds that “freeing organisational improvement models from constraints imposed by specific applications that in some way freeze their development will certainly help quality management development” (p. 126).

In order to put forward a deeper level of analysis, a review of the EFQM self assessment scorebook (EFQM Assessor Scorebook, 2010) was carried out by the researcher. Similar to MBNQA, the following questions were posed for organisations adopting the EFQM excellence model:

Q1. After completing the sixty nine-page assessment score book, is it clear what process changes need to be made by an organisation?

Q2. Does the completed EFQM assessment score-book provide insight into how these organisational process changes can take place?

The review of the EFQM excellence model scorebook concluded that an assessment provides general information on where your organisations is with respect to Leadership, Strategy, People, Partnership & Resources, Processes, Products and Services, Customer Results, People Results, Society Results and Key Results. However, the EFQM self-assessment does not provide any specific process gap information on how these gaps can be closed. This limitation is aligned to Simms (1991) and Dror's (2008) views. Dror (2008) contends that "the excellence models do not offer any suggestions regarding the long-term programs an organisation should adopt in order to achieve continuous improvement" (p. 587).

In summary, the EFQM excellence model has been adopted by many organisations in Europe. The excellence model success is linked to a number of enabling components that are used to drive the results. Similar to the MBNQA, the EFQM excellence model incorporates the key enabling components of leadership, customer focus, strategic planning and people focus. Unlike the MBNQA, the EFQM (See Figure 2.3) excellence model also includes an enabling process component. For process led organisations, the research contends that there is value to be gained in the inclusion of a process component in a new conceptual framework. From a weakness standpoint, the literature describes a gap that the EFQM excellence model does not provide any guidance on how to improve. Consequently, the researcher contends that this gap can be filled through an incorporation of an improvement methodology component inside a new conceptual framework.

2.4 Six Sigma

Six Sigma is a continuous improvement methodology that has gained widespread popularity since its inception at Motorola in the 1980s. Six Sigma is a customer focused, data driven, business improvement methodology, that utilises an organisational structure to coordinate all improvement efforts (Harry and Schroeder, 2000). It has received considerable attention in the literature from a multitude of authors and practitioners (e.g. Aboelmaged, 2009; Antony, 2004; Antony et al, 2007, Antony, 2011; Brady and Allen,

2006; Breyfogle, 2003; George, 2003; Gillett et al, 2010; Harry and Schroder, 2000; Harry, 2000; Henderson and Evans, 2000; Hoerl, 2004; Montgomery and Woodall, 2008; Pande et al, 2000; Pepper and Spedding, 2010; Schroeder et al, 2008; Snee, 2010; Suresh et al, 2012; Vicencio-Ortiz and Kolarik, 2012; Watson, 2004; Wiklund and Wiklund, 2002).

Motorola first introduced Six Sigma as a “transformational quality and business improvement initiative methodology” (Motorola, 2011). In 1986, the concept of Six Sigma (Barney, 2002) was introduced by Bill Smith at Motorola. Bill Smith was strongly supported by Bob Galvin, the then CEO at Motorola, who “urged Bill to go forth and do whatever was needed to make Six Sigma the number one component in Motorola’s culture” (Breyfogle, 2003, p. 5). When asked, “What do you believe that you did best in leading this initiative within Motorola? Bob Galvin replied: “I listened. Our people knew that they could say anything in front of me. I believe that we have created an atmosphere where people could speak up and influence the company” (Godfrey, 2002, p. 46). This culture of openness solidified the partnership between Bob Galvin and Bill Smith, and was instrumental in sowing the seeds for the inception and growth of the Six Sigma methodology throughout Motorola. The research contends that this support structure, exemplified by the robust partnership between Robert Galvin and Bill Smith, is a central plank for Six Sigma success at any organisation (e.g American Express, Boeing, Caterpillar, Fidelity Investments, Honeywell International, J.P. Morgan Chase, Johnson and Johnson, Kodak, Lockheed Martin, Maytag, Northrop Grumman, Sony, GE, and Texas Instruments (Nakhai and Neves, 2009).

Numerous authors (See Table 2.4) have extolled the virtues of Six Sigma (e.g Breyfogle, 2003; Gillett et al, 2010; Harry, 1998; Montgomery, 2001; Pande et al, 2000; Snee, 2010).

Table 2.4: Strengths and Weaknesses of Six Sigma

Strengths	Weaknesses
Six Sigma continues today as the best approach to process improvement (Snee and Hoerl , 2003).	Fewer than 10% of the companies are doing it to the point where it is going to significantly affect the balance sheet and the share price in any meaningful period in time. (Coronado and Antony, 2002, p. 92).
No approach integrates the human and process elements as well as Six Sigma (Snee, 2010, p. 9).	Douglas et al’s paper (2009) provides evidence that Six Sigma is a reductionist approach. Douglas et al (2009) contend that a reductionist approach “works well for simple, well defined ‘hard’ problems but fails to perform well on complex, ill defined ‘soft’ problems and when the parts of a more complex problem are independantly optimised” (p. 144).
Six Sigma is uniquely driven by close understanding of customer needs, disciplined use of facts, data, and statistical analysis, and diligent attention to managing, improving, and reinventing business processes. (Pande et al, 2000, p. xi).	"A large amount of investment is required to train employees to be green belts, black belts, master black belts and so on" (Goh et al, 2006, p. 238).
The strength of Six Sigma lies largely from the customer focus coupled with measureable improvements in the Critical to Quality (CTQ).(Goh et al, 2006, p. 236).	"I personally have experienced that senior management in many organisations view six sigma as another quality improvement initiative or flavour of the month (Antony, 2004, p. 303).
The effectiveness of Six Sigma is rooted in its judicious application of statistical techniques for information gathering, analysis and interpretation (Goh and Xie, 2004, p. 236).	"The prioritisation of projects in many organisations is still based on pure subjective judgement. Very few powerful tools are available for prioritising projects and this should be a major thrust for research in the future" (Antony, 2004, p. 304).
In a typical Six Sigma programme, the aim is to build what the customers want as reflected by what is known as Critical to Quality, or CTQ.(Goh et al, 2006, p. 236).	Thus, while Six Sigma has its place in securing predictable product and service characteristics in businesses, its very nature would run counter to the culture of creativity and innovation in any vibrant, innovation-oriented enterprise. Six Sigma is commonly applied to address what has gone wrong, but not what is beyond the current perception of what is CTQ. Nor does the Six Sigma framework explicitly deal with the worth of knowledge, imagination, innovation, passion or dedication. (Goh , 2002, p. 409).
Six Sigma has a strategic role to play in organisations (Goh and Xie, 2004; Antony and Banuelas, 2000, Pande et al, 2000).	There are no uniformly accepted standards for certification of Six Sigma personnel (Goh et al, 2006).
Six Sigma is usually carried out on a project-by-project basis. With a project based approach a Six Sigma programme can be better defined and managed.(Goh et al, 2006, p. 236).	Frustration can occur due to expensive data driven solutions and this may result in only a small portion of the solution being implemented (Antony, 2004).
"Six Sigma is seen as having a significant impact on operational efficiency" (McAdam et al, 2005, p. 168).	Six Sigma (Antony, 2004) lacks a theoretical underpinning.
Six Sigma is based on the application of a structured methodology using trained improvement specialist (e.g Green Belt, Black Belt, Master Black Belt) through customer focused processes with co-leadership and customer focused strategy being a key driver of the results.	The effectiveness of Six Sigma is dependant on the link to the overall strategy (Coronado and Antony; 2002).
Suresh et al (2012) reports that Six Sigma “provides companies with breakthrough improvement in the understanding of their products and processes, which leads to higher quality, efficient development and operating costs, thus enhancing the organisation’s competitive strength”.(p. 232).	“Any organisation which adopts some of these approaches now is presuming that what worked for Motorola in the 1980s will work for them 20 years later”. (Van der Wiele et al, 2006, p. 365)
“The approach has proved itself highly effective in terms of delivering cost savings and, increased customer satisfaction” (Bendell, 2006, p. 256)	Brady and Allen’s (2006) suggest Six Sigma “is a method with a ‘meso-level’ or project-level scope and focus” (p. 349).

Six Sigma has brought considerable savings to organisations because it is based on a structured data driven problem solving methodology that is uniquely driven by a close

understanding of customer needs (Pande et al, 2000, p. xi), and is supported by a critical mass of improvement specialists and organisational managers at all levels in the organisation right up to executive level. Harry (1998, p. 60) contends that Six Sigma provides companies with a series of interventions and statistical tools that can lead to breakthrough profitability and quantum gains in quality. Snee (2010) goes further by arguing that it works better than other improvement methodology because it integrates “the human and process aspects of process improvements” (p. 11). Jack Welch described Six Sigma “as the most important initiative GE has ever undertaken” (Harry, 1998, p. 64). Coronado and Antony (2002) contend that Jack Welch’s zealous commitment was a key factor in the savings that GE reported in the 1999 annual report:

“ the six sigma initiative is in its fifth year – its fifth trip through the operating system. From a standing start in 1996, with no financial benefits to the company, it has flourished to the point where it produced more than \$2 billion in benefits in 1999, with much more to come this decade”.

(Coronado and Antony, 2002, p. 92)

Motorola report a similar success story. Between 1987 and 1997 achievements at Motorola have yielded cumulative savings of \$14 billion from Six Sigma efforts (Pande et al, 2000, p.7). Similarly, Antony and Banuelas (2000) report that Allied Signal reduced manufacturing costs by more than \$1 billion between 1992 and 1996. Hammer’s (2002) figures on adoption are also worth noting:

“At least 25% of the Fortune 200 claim to have a serious Six Sigma program, including Ford Motor Company, Bank of America, Eastman Kodak Company, Dupont and American Express Company”.

(p. 30)

Despite the importance of Six Sigma, many authors outline weaknesses. For example, Douglas et al (2009) makes an interesting point that Six Sigma does not work for all business problems. Douglas et al (2009) argues that a reductionist approach like Six Sigma “works well for simple, well defined ‘hard’ problems but fails to perform well on complex, ill defined ‘soft’ problems and when the parts of a more complex problem are independently optimised” (p. 144).

The resource impact that Goh et al (2006) describes is very pertinent to the current harsh economic climate. Goh et al (2006) writes: "A large amount of investment is required to train employees to be green belts, black belts, master black belts and so on" (p. 238). Coronado and Antony (2002) cast further doubt on the effectiveness of Six Sigma.

“Fewer than 10% of the companies are doing it to the point where it is going to significantly affect the balance sheet and the share price in any meaningful period in time”

(p. 92)

This lack of effectiveness may be partially linked to Antony’s (2004) assertions that frustrations can occur due to expensive data driven solutions proposals and this may result in only a small portion of the solution being implemented. Also, the following question is posed: Is the data driven solution always the best solution?

Despite the considerable training effort (Goh et al, 2006) and expense required for Six Sigma deployment, the level of effectiveness associated with deployment of Six Sigma is challenged by many authors (e.g Antony, 2004; Coronado and Antony, 2004; Douglas et al, 2009; Goh et al, 2006).

Regardless of the improvement methodology that is deployed, resources in organisations can be wasted through the application of rigorous frameworks to organisational improvement objectives. In addition, for organisations adopting Six Sigma, is there a need to complete all the deliverables that are suggested by the Six Sigma DMAIC methodology? Akamavi (2005) reports on the use of the process mapping approach to streamline the process of opening a Lloyds TSB student account at a local branch. Process mapping (Akamavi, 2005) facilitated the introduction of a simpler, faster and more economical process. This process mapping approach is one of the many deliverables that is recommended by the Six Sigma methodology. As reported by Akamavi (2005), this process-mapping tool in parallel with a precise business problem and objective statement may be sufficient for certain projects. This lack of fit between Six Sigma and the current organisational requirements is articulated succinctly by (Van der Wiele et al, 2006):

“Any organisation which adopts some of these approaches now is presuming that what worked for Motorola in the 1980s will work for them 20 years later”.

(p. 365)

In summary, Six Sigma has gained widespread popularity since its inception in Motorola in the 1980s. Six Sigma has brought considerable savings to many companies across the globe. The main reason for the global success is because Six Sigma is based on the application of a structured methodology that utilises trained improvement specialists (e.g Green Belt, Black Belt, Master Black Belt) inside a supportive environment. In addition, the improvement specialists drive improvement through customer focused processes with co-leadership and customer focused strategy being a key driver of the results. The Six Sigma components are listed in Table 2.5. Also, this Table provides a high level view of the MBNQA and EFQM excellence model core components.

Table 2.5: MBNQA, EFQM and Six Sigma Core Components

	MBNQA	EFQM Business Excellence Model	Six Sigma
Customer focused leadership	Y	Y	Y
Customer focused strategy	Y	Y	Y
Customer focused process	N	Y	Y
Improvement methodology	N	N	Y
Improvement specialist	N	N	Y

The next section provides an overview of the Balanced Scorecard. The balanced scorecard is connected to organisational strategy deployment and implementation.

2.5 Overview of the Balanced Scorecard

The Balanced Scorecard (BSC), developed by Kaplan and Norton (1992) in the 1990s, has given organisations the framework to transform their organisational strategy into organisational “forward looking” performance metrics that will help an organisation compete. The essence of the Balanced Scorecard is captured succinctly by Metri (2007). “If you can’t measure it, you can’t manage it and thus you can’t improve upon” (p. 60).

The seeds of the Balanced Scorecard were sown on the premise that “an exclusive reliance on financial measures in a management system is insufficient” (Kaplan and Norton, 2001, p. 87). In 1992, a year long study of 12 companies culminated in the introduction of the Balanced Scorecard (Kaplan and Norton, 1992). Kaplan and Norton’s (1992) Balanced Scorecard revolutionised the conventional thinking on performance metrics. By going beyond measures of financial performance, organisations had a better view on what needs to be achieved and how the company is performing against these metrics. Overall, the Balanced Scorecard “provides a balanced picture of current operating performance as well as the drivers for future performance” (Kaplan and Norton, 1996a, p. 53).

Many organisations use the Balanced Scorecard as the cornerstone for the strategic management system. The Balanced Scorecard has been adopted in many countries: (Spain; Urrutia and Eriksen, 2005), (Sweden; Dabhilkar and Bengtsson, (2004), (India; Aravamudhan and Kamalanabhan, (2007), (Greece; Anagnostopoulos and Elmasides, 2010), and also across a range of industries including health care (Noorein and Kaplan; 2002), education (2009; Beard), chemicals (Kaplan; 1993), electronics (Gumbus and Lyons; 2002) and metal powder manufacture (Pineno and Cristini; 2003).

Despite the popularity of the Balanced Scorecard, there are contrasting statistics on the adoption rate and success rate. On the one hand, Pineno and Cristini (2003) cite a report by Bain & Co indicating “approximately 50% of Fortune 1,000 companies in North America and about 40% in Europe use a version of the BSC” (p. 28). Similarly, Silk (1998) reports that 60 percent of Fortune 1000 companies has either implemented or are in the process of implementing the Balanced Scorecard. On the other hand, Neely

et al (2004) reports that commentators suggest that only between 30- 60 per cent of large USA firms have adopted the Balanced Scorecard.

From a Balanced Scorecard benefit perspective, many authors argue that there is a paucity of empirical evidence (e.g Bourne et al, 2002; Neely et al, 2004; Nørreklit, 2000;). However, one statistic is worth noting. Lewy (McCunn, 1998, p. 34) claims that 70% of Balanced Scorecard implementations have failed. To support the successful implementation of the balanced scorecard, Olve et al, (1999) introduces steps that will “encourage support for the BSC improvement” (Amaratunga et al, 2001, p. 186). These implementation guidelines also serve to highlight the importance of having a robust change management process inside the organisation before embarking on any initiatives such as Balanced Scorecard implementation, Business Process Re-engineering, Lean, or Agile.

The balanced scorecard was originally based on four perspectives (Kaplan and Norton, 1992):

- Customer
- Internal Process
- Learning and Development
- Financial

By aligning the process perspective to the customer perspective, process metrics can be put in place to achieve the customer requirements. In a case where process performance metrics are not achieving customer requirements, continuous improvement programmes can be put in place to achieve the process metrics. This is where the Balanced Scorecard and continuous improvement connect. This alignment of continuous improvement programmes is an area that add further value to the effectiveness of the balanced scorecard. Also, this lack of solution capability is alluded to by a number of authors (e.g Neely et al 2004, Othman 2008, Schneiderman 1999).

Schneiderman (1999) contends that there is no deployment system that breaks high level goals down to the sub-process level, where actual improvements activities reside (Schneiderman, 1999, p. 7). Similarly, Othman (2008) writes that the balanced scorecard is "seen as myopic and ignores the activities and initiatives that goes beyond

the original targets" (p. 261). Also, Neely et al, 2004 makes a call for an integration of the Balanced Scorecard with an improvement programme.

“Is it that the organisation did not supplement the Balanced Scorecard with an appropriate improvement methodology and/or programme?”

(p. 768)

Despite the importance of this solution capability (e.g Neely et al 2004, Othman 2008, Schneiderman 1999) for enhancing the effectiveness of the Balanced Scorecard, a scan of the Indescience and Emerald databases between 1992 and 2012 revealed no papers available that looked at the integration of the Balanced Scorecard with an improvement methodology.

The next section provides a brief review of the quality movement. A revisit of the history of the quality movement will help to elicit the fundamentals of customer value improvement.

2.6 The Quality Movement

2.6.1 Introduction

This review serves to highlight where quality has come from, the evolution drivers and also provide further insights into the key components of customer value improvement.

2.6.1.1 A Brief History of the Quality Movement

Quality is not a new phenomenon. Many centuries ago, products were produced by individual workers who monitored their own product quality. Later with the growth of commerce, master craftsmen supervised several apprentices. Quality was essential to the master as his reputation and income depended on it. Juran et al (1995) reports how the Romans utilised quality: “They developed quality standards, measurement methods and tools. They employed sophisticated customer-supplier relationships to increase production” (p. 125). With respect to the competitive advantage of product quality, Jean-Baptiste Colbert (Burrill and Ledolter, 1999), a minister in Louis XIV government, wrote in 1664: “If our factories through care, impose the superior quality of our products, foreigners would see the advantage of purchasing French goods and money would flow to our kingdom” (p. 31). With the coming of the Industrial Age and

Taylorism, inspection oriented quality control was adopted by many factories. Frederick Taylor, born in 1856 and founder of Taylorism, obtained a mechanical engineering degree from Stevens Institute of Technology in 1883. As an employee at the machine shop, Taylor focused on improving work methods and efficiencies. In the book, the Principles of Scientific Management, Taylor (1911) proposes a number of key concepts:

- Understand each element of the task.
- Select, train and develop the worker.
- Have a division of work between management and worker.
- Co-operate with worker to follow procedures.

Taylor (1911) believed that these concepts should help to secure the maximum prosperity for the employer, coupled with the maximum prosperity for each employee. This division of work for efficiency purposes has had an impact on the proliferation of mass inspection. Berger et al (2006) deem this mass inspection to be the first phase of modern quality.

The second phase is linked to the work that was done at Western Electric, a supplier of the Bell Telephone company. Shewart, Deming and Juran all worked for Western Electric. While working at the Hawthorne plant for Western Electric, Walter A Shewhart, a B.S and M.S graduate from University of Illinois and a physics PhD graduate from the University of California, developed (Best and Neuhauser, 2006) a process oriented quality control concept in 1924. Instead of the traditional quality assurance approach, Shewhart's approach focused primarily on controlling the product through inspection. Using the control chart, Shewart framed the problem into assignable causes and "chance cause" variation. This delineation of cause provides guidance to the user on when to act and when to leave the process alone. Walter Shewharts's control charts have become a quality legacy that continues today. In addition to the control charts, Shewart introduced the Plan-Do-Study-Act cycle. This cycle was then developed further by Deming and has become know today as the Plan-Do-Check-Act cycle. Best and Neuhauser (2006) report on the influence of Shewart on Deming: "While at Hawthorne, Shewhart met and influenced W Edwards Deming who went on to

champion Shewhart's methods" (p. 142). Joseph Juran also worked in the Hawthorne plant from 1924 and was also influenced by Shewart. Consequently, Shewart, Deming and Juran "are often considered to be the founders of the quality movement" (Best and Neuhauser, 2006, p. 142).

In addition to the PDCA cycle Deming also championed the Theory of Profound Knowledge and the 14 points of Quality. The Theory of Profound Knowledge (Deming, 1994, p. 92) consists of four inter related elements:

- Appreciation for a system
- Knowledge about variation
- Theory of knowledge
- Psychology

Deming (1994) contends that all managers need to have an understanding of the Theory of Profound Knowledge. This point is crystallised further when the theory is viewed through the lenses of hard (technical) and soft (interpersonal) elements. As organisational life is centred around people to people exchanges, it is imperative that managers understand what drives people, what support structures are required to enable people to excel, in addition to an understanding of the technical elements that relate to the products and processes. The research notes that the Hawthorne experiments, which started in November 1924 at the Hawthorne plant, the same year that the control chart was introduced, (Best and Neuhauser, 2006, p. 142) may have influenced Deming's philosophy. The Hawthorne studies found supporting evidence to conclude that an increase in worker productivity can be linked to the psychological stimulus of being singled out and made to feel important.

Juran, similar to Deming, built up his reputation in America, and applied his expertise in Japan. Both Deming and Juran contributed to the transformation of quality in Japan. On Deming, Berger et al (2006) writes: Deming's guidance was instrumental in transforming "made in Japan" from a liability to an asset." (p. 4). Dahlgaard-Park (2011) writes on the Deming approach in Japan: "Deming encouraged the Japanese by saying that statistical quality control methods were resources for a poor nation without natural resources, and thus quality was the road that post-war Japan should take"

(p. 501). In addition to the technical elements of quality, Deming (1986, p. 23) also championed the people element through the 14 points of quality. Point 8, 9 and 14 highlight the importance of people to effective company performance.

- **Point 8:** Drive out fear, so that everyone may work effectively for the company.
- **Point 9:** Break down barriers between departments.
- **Point 14:** Put everybody in the company to work to accomplish the transformation.

Although Deming's 14 points (Deming, 1986) were developed in the 1980s, these points can add value to organisations today. For example, communication barriers between business units and inside business units are still a problem for organisations.

The post war era heralded the emergence of Philip Crosby, Kaoru Ishikawa, Armand Feigenbaum, Elihu Goldratt, Taiichi Ohno, Bill Smith and Mikel Harry as new quality leaders. Kaoru Ishikawa championed the fishbone diagram, with Feigenbaum becoming famous for the introduction of Total Quality Control (Feigenbaum, 1991). Despite the simplicity of the fishbone diagram, the Ishikawa or fishbone diagram has the potential to act as the pivot for effective business problem solving.

In the 1980s, Bill Smith and Mikel Harry combined a lot of the tools and techniques that were developed by past quality gurus (e.g Crosby, Deming, Feigenbaum, Juran, Ishikawa, Shewart, Taylor) into a structured improvement methodology called Six Sigma. Six Sigma is a customer focused, data driven, business improvement methodology, that utilises an organisational structure to coordinate all improvement efforts (Harry and Schroeder, 2000).

In parallel with the inception of the Six Sigma era in the 1980s, a greater awareness of the impact of poor quality on consumer confidence is evident. For example, David Garvin (1987) writes: "A survey in 1981 reported that nearly 50% of US consumers believed that the quality of US products had dropped during the previous five years: more recent surveys had found that a quarter of consumers are not all confident that US industry can be depended on to deliver reliable products" (p. 101). Later in the same article, Garvin (1987) provides further compelling evidence on the need for improvement in quality:

“In March 1980, Richard W. Anderson, general manager of Hewlett-Packard's Data Systems Division, reported that after testing 300,000 16K RAM chips from three U.S. and three Japanese manufacturers, Hewlett-Packard had discovered wide disparities in quality. At incoming inspection, the Japanese chips had a failure rate of zero; the comparable rate for the three U.S. manufacturers was between 11 and 19 failures per 1,000. After 1,000 hours of use, the failure rate of the Japanese chips was between 1 and 2 per 1,000; usable U.S. chips failed up to 27 times per thousand”.

(p. 103)

Garvin's (1987) evidence on quality levels are closely aligned to Art Sundry's comments about quality inside Motorola. Mikel Harry reports on his website:

CEO Bob Galvin asked the question, "What's wrong with our company?". "I'll tell you what's wrong with this company... our quality stinks!" That voice was Art Sundry, a sales manager for Motorola's most profitable business at the time”

(Harry Website, 2012)

These quality scenarios depict clearly that quality problems existed inside organisations. The resulting lack of competitiveness created a “burning platform” for action. Motorola responded with the widespread deployment of Six Sigma. GE followed Motorola's lead. The US congress also awoke to the lack of competitiveness with the introduction of the Malcolm Baldrige National Quality Award. In an effort “to improve the competitiveness and performance of U.S. organisations” (NIST, 2012), US Congress passed the Malcolm Baldrige National Quality (MBNQA) Improvement Act in 1987. Similarly, there was a quality awakening in Europe with the introduction of the European Foundation for Quality Management Award. The EFQM excellence model was born as a result of 14 CEOs joining “forces in 1988 to develop a Management tool that would increase the competitiveness of European organisations” (EFQM, 2010). Both the MBNQA and EFQM award are based on Total Quality Management.

Burrill and Ledolter (1999) write on the inception of Total Quality Management (TQM): “David Garvin researched the beginnings of TQM but he came up empty. He concluded that no single book or article marks the inception of strategic quality management but that line of demarcation was in the early 1980s” (p. 34). Some beginnings of TQM may be found in Feigenbaum’s Total Quality Control. The overarching principle of the TQC (Feigenbaum, 1991) view is that TQC must start with the identification of the customer requirement and end when the product is in the hands of a satisfied customer. Feigenbaum introduced the concept of the hidden factory, which he defines as the proportion of plant capacity expended on the rework of defective parts and goods. Overall, Feigenbaum’s (1991) book provides a comprehensive guide for the introduction of Total Quality Control in organisations.

The SEMATECH definition of TQM crystallises further the power of TQM. Burrill and Ledolter (1999) reports that “SEMATECH, a consortium dedicated to keeping the US semiconductor industry viable and competitive in the market place published the following definition:

“Total Quality Management is an holistic management methodology that aligns the activities of all employees in an organisation with the common focus of customer satisfaction [to be achieved] through continuous improvement in the quality of all activities [processes], goods and services”.

(p. 34)

Bretja et al (2011) reports that Total Quality Management “has been called a management philosophy (Hafeez et al., 2006), a business strategy (Bowles and Hammond, 1991), a company culture (Dahlgaard et al., 1998) and a systematic, scientific, company wide activity (Kano, 1996)” (p. 5). Dean and Bowen (1994) view TQM as a “philosophy or an approach to management that can be characterized by its principles, practices, and techniques” (p. 394). Dean and Bowen (1994) add to the definition by breaking TQM down into three core principles: 1. Customer Focus 2. Continuous Improvement 3. Teamwork. Inside the three core principles, Dean and Bowen (1994) also contend that customer focus is the most important principle. On the same theme of customer, Morrow (1997) further adds that an appreciation of internal

and external customers is “fundamental for long- term organisational success” (p. 365). While some authors (e.g Curkovic et al, 2000; Morrow, 1997) agree with Dean and Bowen’s (1994) view on the core principles of TQM, Dahlgaard and Dahlgaard-Park (2007) recommend the addition of a fourth principle: Leadership. The recommendation is based on the premise that in order to be successful with the principles of customer, continuous improvement and everybody’s participation, leadership (Dahlgaard and Dahlgaard-Park, 2007) needs to be applied everywhere also. Overall, these mixed and varied views of TQM are testament to the broad scope that TQM embraces and also to the capability that TQM brings to organisations. In addition, the views highlight the importance of leadership, internal and external customer focus, team and common purpose to the overall organisational quality programmes.

Moving on to the 1990s, we see the introduction of Lean Thinking. Lean thinking evolved from the Toyota manufacturing system. Lean thinking is a philosophy that focuses on streamlining value-add activities and eliminating waste in the process and system, allowing the organisation to better meet customer demand. In the 1990s, James Womack (1990) was instrumental in the proliferation of Lean in the Western world. Womack et al’s (1990) combined research of ninety automotive assembly plants in seventeen countries resulted in the publication of the book “The Machine that Changed the World”. As research director of MIT’s International Motor Vehicle Programme, Womack led the research team that studied the international automotive industry. As a consequence of their in-depth research, Womack and the research team observed unique behaviours at the Toyota Manufacturing Company. They looked at performance attributes of the Toyota Production System and observed that the TPS:

- Produced products with fewer defects.
- Performed key processes in less time and with less effort.
- Needed less inventory at every step.

Overall, Toyota’s Production System connected up the critical links of quality, customer satisfaction, market share and profit. Toyota’s Production System involved less effort to perform the work, and less material, time, space and energy to produce the products and services.

As a consequence of the review of the quality literature from 2000 to 2010, the following question was posed.

For the western world, are there any new developments in organisational quality improvement?

Answer: The Lean Six Sigma methodology represents one of the most popular developments.

After the emergence of Lean in the 1990s, organisations have adopted the Lean Six Sigma approach. In 2002, Michael George publicised Lean Six Sigma in his book, “Lean Six Sigma: Combining Six Sigma quality with lean production speed”. George (2002) argues that Six Sigma does not address process speed, whereas Lean, while addressing the process speed problem, does not address defect reduction. Later in his 2003 publication, George (2003) extols the virtues of Lean Six Sigma for the services industry using showcase service organisational examples. For instance, George (2003) adds that Lean Six Sigma brought Bank One from survival to excellence using a combination of strategic priorities, improvement specialists and the Lean Six Sigma methodology. The Lean component allowed Bank One to focus on waste reduction and speed improvement whereas Six Sigma allowed the focus on variation and defect reduction.

In a review of the quality movement for the same period in Japan, Dahlgaard-Park (2011) refers to post 2000 as the “lost period”. Using the recent case of Toyota, Dahlgaard-Park (2011) argues that it is an example of “declined passion towards quality” (p. 505). Dahlgaard-Park (2011) adds that Toyota’s top management’s decreased focus on quality resulted in massive withdrawals of cars between 2009 and 2010. Cole (2011) reports on the extent of the Toyota recall: In October 2009, “citing a potential problem, in which poorly placed or incorrect floor mats under the driver’s seat could lead to uncontrolled acceleration in a range of models, Toyota announced that it was recalling 3.8 million US vehicles” (p. 29). Since this recall Cole (2011) reports that over 20 million cars have been recalled. The cause of this crisis inside Toyota has been attributed to a decrease in management focus on quality and product complexity. Cole (2011) explains: “The reality is that Toyota’s problems were not caused by a faulty

production system but by poor management decisions. In particular, the company executives failed to respond aggressively to early signs of quality problems”. (p. 34).

Cole (2011) strengthens his argument further:

- A high level task force that was setup to deal with the quality problems was disbanded in 2005.
- In the wake of rapid growth, Toyota failed to properly evaluate and approve components designed by outside overseas suppliers.
- Suppliers put forward the viewpoint that their growing problems with Toyota is linked to less experienced staff in Toyota’s purchasing group who have not internalised the “Toyota Way”.
- A high level Toyota executive publicly acknowledged in 2010 that, facing internal manpower shortages, the company had no choice but to use a large number of new contractors to boost engineering capacity. In his view, that contributed to the increase in quality glitches.

The Toyota recall crisis exemplifies the importance of having a strong “quality focused” leadership team who will ensure that strategic quality objectives are properly supported.

2.6.1.2 Some salient points from the history of the quality movement

Even though quality has gone through many transitions, there are a number of themes that remain constant. Since the beginning of the quality movement, the customer has always been a central cog. From individual workers centuries ago to large multinational organisations today, the customer has been at the core of the business. Second, methodology has played a vital role throughout the centuries. For example, the methodology for individual workers was focused on self-monitoring of product quality.

On the other hand, the apprentice-master crafts man methodology was centred around master craftsmen supervising and monitoring several apprentices. Quality management was essential to the master as his reputation and income depended on it. Taylorism signalled the birth of mass inspection and standardisation. The 1980s could be viewed as the breakthrough era with the birth and adoption of the Six Sigma methodology. Six Sigma combined tools and techniques from previous quality gurus’ work into a structured business improvement methodology.

Third, it is worth noting that many of the quality gurus come from an engineering or science background. This has resulted in a greater focus on the statistical tool element and system element of quality management with a reduced focus on the soft or people engagement element. For example, Shewart's legacy is centred around the process oriented control chart and the Shewart PDCA cycle. Juran is famous for the Quality Trilogy (1. Quality Planning 2. Quality Control 3. Quality Improvement). Deming's major contributions include the development of the PDCA cycle, the 14 points, the red beads experiment and the Theory of Profound Knowledge. Even though the earlier quality gurus highlight the importance of the soft elements (Deming's 14 points of Quality), there is no prescriptive evidence on, for example, how to build trust among the workforce for sustained change. For example, for an organisation looking to make quality improvements, are there any trust elements or components that will aid the optimisation of the quality improvement efforts? The researcher argues that this soft elements or people engagement element represents a knowledge gap in the current quality literature.

Another salient point from the review is the influence that quality leaders like Shewart, Deming and Juran had on the overall quality movement. In his time at the Western Electric Hawthorne plant, a supplier of Bells Labs, Shewart introduced the control charts in 1924. Also, through his work at Hawthorne, Shewart had a major influence on Deming and Juran. Subsequently, both Deming and Juran went on to influence the direction of quality in Japanese organisations. Deming was acknowledged for his contribution to quality in Japanese companies with the introduction of the Deming prize in 1950. The Deming prize was originally introduced to reward Japanese organisations that have made major advances in quality.

The late 1980s and early 1990s resulted in a US and European realisation of the strategic importance of quality with many countries establishing programmes to recognise quality and excellence. For example, The Malcolm Baldrige National Quality Award (MBQNA) and the European Foundation for Quality Management (EFQM) excellence model have guided organisations to performance improvement since the late 1980s. These awards have been in existence since the 1980s with Motorola (MBNQA Award winner, 1988) and Rank Zerox (EFQM Award Winner, 1992) winning the

inaugural awards. The structure of these awards connected quality to competitiveness and elevated quality to the strategic level in organisations.

The review of TQM emphasises the importance of the internal and external customers, continuous improvement, leadership and team. Total Quality Management focused the activities of all employees in an organisation on customer satisfaction through continuous improvement in the quality of all key activities.

The Toyota recall crisis exemplifies the importance of having a strong “quality focused” leadership team who will ensure that customer focused strategic quality objectives are properly supported and achieved.

In summary, this review provides insights into the key milestones in the quality movement. Also, it signals the importance of Shewart, Deming, Juran to the evolution of the quality movement. It highlights the importance of strong quality focused leadership (e.g Toyota recall crisis), strategic quality objectives (e.g Toyota recall crisis), the power of structured methodologies (e.g TPS at Toyota, Six Sigma at Motorola or GE). More importantly, it connects quality to increased organisational and national competitiveness and highlights the strategic role of quality in organisations.

2.7 Strategic Quality

The strategic importance of quality is highlighted by numerous authors (e.g Oakland, 2005; Berger et al, 2006; Oakland, 2005; Peters’, 1999; Srinidhi, 1998). Oakland (2005) reports that “any organisation basically competes on its reputation for quality, reliability, price and delivery, and most people now recognise that quality is the key to achieving sustained competitive advantage” (p. 1054). Srinidhi (1998) definition of strategic quality management provides further credence to the importance of strategic quality:

“Strategic quality management (SQM) is the formulation and deployment of quality management within the overall framework of strategic planning, in a way that is aligned with all the other initiatives such as process re-engineering, cost management, inventory control and target analysis”.

(p. 38)

Oakland (2005) reports that the strategic importance of quality, recognised globally in the 1980s, resulted in the birth and adoption of a number of excellence models for Total Quality Management. The impact of Deming's work in Japan highlights the power and strategic significance of quality. The question arises: How does quality provide the strategic power for organisations?

Peters' (1999) contention on the origins of quality provides evidence on the strategic power of quality. Peters' (1999) argues that the origins of quality stems from a desire to run the organisation better, firstly by focusing on the customer needs and, secondly, by producing customer service in the most efficient manner. Similarly, Wilshaw and Dale (1996) posit that the differentiation of a company's offering in the market place "could only be achieved by a combined product and service offering, which fulfilled the needs, wants and future expectations of customers, in a cost-effective manner" (p. 402). Deming provides further insights into the link between quality and the customer. A service (Deming, 1994) could be deemed a quality service if it helps somebody, provides customer value, and has a sustainable market. Value drives customer satisfaction, market share and profitability. On the same theme, Jan Carlzon (1987) believes that an organisation's overall performance is linked to the sum of interactions between the employee and the customer, the so-called moments of truth, that help drive stellar performance. Oakland (2011) adds to Carlzon's (1987) views by describing how this customer orientation can be realised at employee level: "I will personally understand who my customers are and what are their needs and expectations and I will take whatever action is necessary to satisfy them fully" (p. 527). On the same theme of the customer, Morrow (1997) further adds that an appreciation of internal and external customers is "fundamental for long-term organisational success" (p. 365).

These views on customer focus (e.g Carlzon 1987, Deming 1994, Dean and Bowen 1994, Morrow, 1997 Oakland, 2011, Peters 1999, Feigenbaum 1991, Wilshaw and Dale 1996) capture the essence of quality's strategic role. Quality shapes strategy through the "eternal" focus on the customer and through the principles and methodologies that drive strategy from concept to effective execution.

Table 2.6 provides a view of the fundamentals that have been identified in the literature review of the history of quality and strategic quality.

Table 2.6: Fundamentals of Quality and Strategic Quality

	History of Quality	Strategic Quality
Leadership	Y	Y
Customer focused strategy	Y	Y
Customer focused process	Y	Y
Improvement methodology	Y	Y
Improvement specialist	Y	Y

2.7.1 Component Inputs for a Customer Value Improvement Framework.

Table 2.5 highlight the core components from the review of MBNQA, EFQM and Six Sigma. These components are also highlighted in the review (See Table 2.6) of the history of quality and strategic quality.

Based on the literature review, the customer value improvement components are customer (internal and external) value focused process, customer value focused strategic objectives, customer value focused leadership, improvement methodology and improvement specialist. The next section elaborates further on these customer value improvement components.

2.7.2 Customer value focused process

Oakland and Tanner (2007) provide credence to the power and central role of the process. In a study of 28 public sector organisations, Oakland and Tanner (2007) found that the key link between the strategic objectives and the operational improvement is the core processes. Oakland and Tanner (2007) added that if this link is broken the change becomes ineffective. Oakland (2005) crystallises further the process roles in organisations:

“Everything we do is a process, which is the transformation of a set of inputs into the desired outputs. In every organisation there are some core business processes that must be performed especially well if the mission and objectives are to be achieved.”

(p. 1055)

Many authors also highlight the importance of the connection between customer and process (e.g Botha et al, 2012; Burrill and Ledolter, 1999; Deming, 1986; Grönroos, 1996; Hastings, 2008; Walsh, 1995). Grönroos (1996) identifies the process management approach as being part of the overall relationship marketing strategic approach. Grönroos (1996) further adds that this process approach allows organisations to “direct efforts towards the demands and expectations of customers” (p. 10). Walsh (1995) argues that a process approach allows reward and recognition systems to be based on the contribution people make to the process and its outcomes. Walsh’s (1995) thinking connects the customer to the process, and the people to the process and customer, through the alignment of the process outcomes to the customer requirements and expectations. Saint Luke’s (2011) of Kansas, a regional network of hospitals (Hastings, 2008) highlights the practical significance of the process: “...we discovered that processes—not the individuals performing them—accounted for 90 percent of our problems and that we’d been wasting time and resources using audits to improve performance” (p. 25). The process views articulated (i.e Groonroos, 1996; Walsh, 1995) in addition to the practical example at Saint Luke’s (Hastings, 2008) provides credence to the power of the process and its role in strategic objective achievement through continuous improvement of customer value. Overall, this customer focused process component integrates the needs and expectations of the customer into the overall organisational process structure for the purpose of enhancing the customer value experience.

2.7.3 Improvement Specialists

Gary Kelly, CEO of Southwest Airlines, highlights the importance of people in organisations:

Our people are our single greatest strength and most enduring long term competitive advantage.

(South West Airlines, 2012)

Similarly, Aguinis and Gottfredson (2011) accentuate the individual performance element: “Individual performance is a building block of organisational success” (p. 503). The second component centres on improvement specialists.

Improvement specialists deliver changes to the process for the benefit of the organisation and the customers. In an article titled “Behavior tests Six Sigma”, del Angel and Pritchard (2008), change and performance improvement consultants, report that technically sound change designed by Six Sigma, Lean or similar applications could be at risk of failing unless supported by the appropriate behavioural change. del Angel and Pritchard (2008) add that “experiences in the field indicate that most managers come up short in their approach to the behavioural elements of change”. In an empirical study on the skills needed by black belts (BB) and master black belts (MBB) to become effective leaders, Antony and Snee (2010) report that the most important “leadership traits for MBBs and BBs are persistence and tenacity, adaptability, honesty and integrity, energy self-confidence” (p. 9). These traits help to build trust, commitment and drive higher performance outcomes. Antony and Snee (2010) add that MBBs and BBs need to deal effectively with teams and group dynamics in addition “to understanding human behaviour”. Bennis and Namus (2007) argue that “the capacity to generate and sustain trust is the central ingredient in leadership” (p. xiv). Bennis and Namus (2007) add that “the trust factor is the social glue that keeps any system together. It’s hard to gain but easy to loose” (p. xiv). Consequently, improvement specialists need, in addition to the technical elements of continuous improvement, an understanding of how to get the most out of people. An improvement specialist who has a deep knowledge and understanding of how to build trust and commitment, and of what drives people performance will have the potential to achieve higher performance outcomes for the organisation. A scan of the Indescience and Emerald databases between 1992 and 2012 revealed no paper available that incorporated trust, commitment and performance constructs.

In summary, this improvement specialist with people performance knowledge component ensures that the organisation has improvement specialists that have a balanced soft and technical skill set. This component will provide the leadership team

with a platform for the development of strategic capabilities to deliver and enhance customer value.

2.7.4 Customer value focused leadership

The third component is focused on leadership. Numerous authors highlight the importance of leadership (e.g. Ahire and O'Shaughnessy, 1998; Cole, 2011; Coronado and Antony, 2002; Dahlgaard and Dahlgaard, 2007; Dean and Bowen, 1994; Deming, 1986; Feigenbaum, 1991). The recall crisis at Toyota is testament to the importance of a sustained leadership focus on quality (Cole, 2011). Jack Welsh's strong leadership was a key factor in the success of Six Sigma at GE. Coronado and Antony (2002) adds that Jack Welsh's zealous commitment was instrumental in the savings that GE reported in the 1999 annual report. Central to the leadership definition is that leaders, who operate in the various units of the business and at different levels of the business, are jointly committed to the same goals. Strong leadership fosters unitary of purpose and commitment throughout the organisation. For example, an organisation that has a strong quality focus at middle management level will not generate optimum results if the senior management team does not demonstrate the same levels of commitment. In a large scale study of quality management practices of 449 manufacturing plants in the auto parts suppliers industry, Ahire and O'Shaughnessy (1998) empirical analysis concluded that customer focus was implemented more rigourously when there is top management commitment, resulting in higher product quality.

As organisations exist to drive value for their stakeholders, value identification and delivery is central to a leaders role in the organisation. Conti (2010) provides interesting insights on the relationship element of value identification:

“the effectiveness in generating the expected value, depends on a number of ethical/cultural factors, first of all openness, mutual respect and trust, willingness to co-operate.”

(p. 359)

Conti (2010) adds: “To enhance value-generating capabilities, such relations should be based on trust, openness, willingness to share information and build knowledge together, mutual respect, empathy.” (p. 359).

Johne and Harborne (2003) conducted a leadership empirical study involving a retail bank’s new product development. They concluded that effective co-leadership between the different levels in the organisation was the critical success factor for new product project success. This co-leadership component fostered participation, communication and co-operation at all levels. Co-leadership drives “joined up leadership”. Bennis and Namus (2007) in their book that sold more than five hundred thousand copies highlight the importance of trust to leadership in their four strategies of leadership. Bennis and Namus (2007) four strategies of leadership are: Attention Through Vision, Meaning Through Communication, Trust Through Positioning, and The Deployment of Self. Bennis and Namus (2007) argue that “the capacity to generate and sustain trust is the central ingredient in leadership” (p. xiv). Dirks and Ferrin (2001) provides further insight into how trust aids effective organisational co-leadership by contending that trust results in “more positive attitudes, higher levels of co-operation (and other forms of workplace behaviour), and superior levels of performance”(p. 450). In line with Dirks and Ferrin’s (2001) view, the researcher believes that trust has the potential to increase performance outcomes. Consequently, it is important for effective co- leadership that leaders understand the components of trust and how it can be leveraged by organisations.

The customer focused co-leadership component has the potential to increase communication, help to create a partnership between strategy development and strategy execution, bring ownership and strategy implementation to the fore, and in turn, provide a platform for higher levels of process customer value improvement.

2.7.5 Customer value focused strategic objectives

George (2003) highlights strategic priorities as being one of the key success enablers at Bank One. George (2003) reports that Lean Six Sigma brought Bank One from survival to excellence using a combination of strategic priorities, improvement specialists and the Lean Six Sigma methodology.

The Toyota recall crisis detailed in the review of the Quality Movement section provides evidence of what can occur when priorities change. Dahlgaard-Park (2011) reports that Toyota's top management's decreased focus on quality resulted in massive withdrawals of cars between 2009 and 2010. The cause of this crisis inside Toyota has been attributed to a decrease in management focus (Cole, 2011) on quality and product complexity. Cole (2011) explains: "The reality is that Toyota's problems were not caused by a faulty production system but by poor management decisions. In particular, the company executives failed to respond aggressively to early signs of quality problems". (p. 34).

Strategic priorities drive positive (e.g Bank One) and negative outcomes (e.g Toyota recall crisis). Effective strategy formulation and implementation aligned to the customer guides an organisation in a direction that fits its capabilities and the market that it is serving.

2.7.6 Improvement methodology

Deming (1986) puts the methodology component into perspective: "Where do you hope to be five years from now? How may you reach this goal? By what method?" (p. 19). The review of the quality movement section also highlights the importance of the Six Sigma methodology for Motorola and GE. Similarly, Toyota has built their competitive advantage around the Toyota Production System.

The methodology component translates into selecting the appropriate customer value improvement methodology for the organisation or process. An improvement methodology can vary in complexity from a process mapping approach or individual suggestion and implementation approach (Bhuiyan and Baghel, 2005) to a customized approach. Akamavi (2005) reports on the use of the process mapping approach to streamline the process of opening a Lloyds TSB student account at a local branch. The process mapping approach (Akamavi, 2005) facilitated the introduction of a simpler, faster and more economical process. In the case of a hotel, the preferred methodology may involve, firstly, the mapping out of the PE grid (see Figure 2.1) for customer services attributes and secondly, the introduction of improvement actions based on the detail from the PE grid. For instance, one key action from the PE grid could be the

introduction of role-play customer orientation training for the front desk staff at the hotel.

Another important point worth noting, which is often overlooked, is that an agreed improvement methodology provides a common language for the execution of improvement objectives. In other words, a common improvement methodology, which is understood by the organisational team, enhances communication, and ultimately organisational outcomes. In summary, this deeper investigation conducted in this section of the literature review has resulted in a refinement to the customer value improvement components that are outlined in Table 2.5 and Table 2.6. Figure 2.4 shows the component refinement or transition.

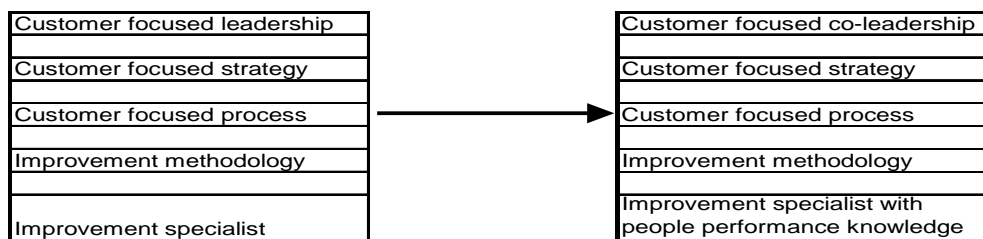


Fig 2.4: Customer Value Improvement Component Refinement

In line with sections 2.7.2 to 2.7.6, the research identifies the following components for a new customer value improvement conceptual framework:

- A customer value focused process component allowing inputs to be transferred into the desired outputs. (See section 2.7.2).
- An improvement specialist component with people performance knowledge providing expertise in areas such as Lean, Six Sigma, Agile, Project Management or customised methodologies (See Section 2.7.3).
- A customer value focused co-leadership component where key leaders at all levels are driving for the same goals and objectives (See Section 2.7.4).
- A customer value focused strategic objective component where the customer value requirements are integrated into the organisational objectives. (See Section 2.7.5)

- An improvement methodology component allowing the organisation to follow a methodology that fits the organisational needs. e.g Lean, Six Sigma or customised methodologies (See Section 2.7.6).

The in-depth literature review identified the core components of customer value improvement. These core customer value improvement components are depicted in the conceptual framework on Figure 2.5.

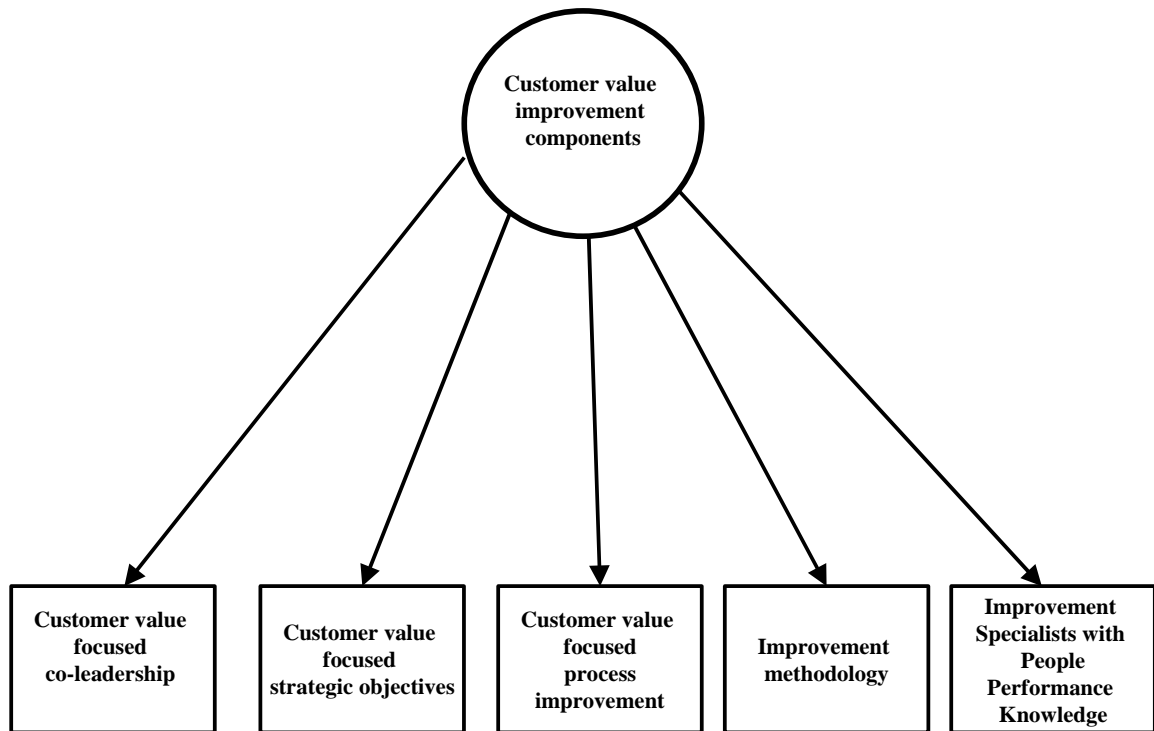


Figure 2.5: A conceptual framework for customer value improvement

Chapter Three: Methodology

3.1 Introduction

The objective of the chapter is to detail the methodology that was adopted to achieve the research aim and objectives. As the methodology selection is driven by the overall aim, the chapter begins by re-visiting the study aim and research questions.

3.1.1 Study Aim

The overall aim of this study is to deepen understanding and provide new insights into customer value improvement in organisations. In specific terms, the aim of this study addresses three areas:

1. To comprehensively explore customer value improvement (CVI) with a view to the identification of the key components.
2. To develop and validate a new customer value improvement (CVI) framework for increased organisational return on investment (ROI).
3. To provide in-depth knowledge for organisational leaders and improvement specialists on how customer value improvement (CVI) can be adopted effectively inside the organisational setting.

In order to address the research aim, the study answers the following questions:

Q1. What are the key components of customer value improvement in organisations for increased ROI?

Q2. How are these components of customer value improvement (CVI) connected inside a customer value improvement framework for increased ROI?

Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of organisational customer value improvement (CVI)?

3.1.2 Methodology overview

In order to answer question Q1, Q2 and Q3 above, a three step approach was carried out. The first step involved a three-pronged literature review.

Step 1: Prong 1

a) Reviewed the effectiveness of Six Sigma with a view to capturing the Six Sigma weaknesses and core components of customer value improvement.

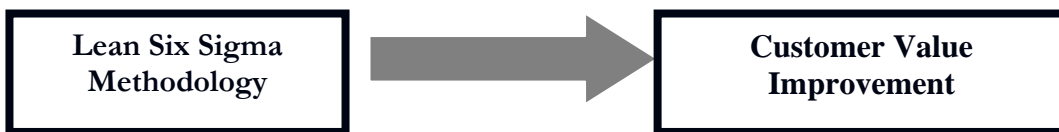


Figure 3.1: Six Sigma Effectiveness Review

Step 1: Prong 2

b) Reviewed the effectiveness of MBNQA and EFQM excellence model with a view to capturing the MBNQA and EFQM excellence model weaknesses and core components of customer value improvement.



Figure 3.2: MBNQA and EFQM Excellence Model Effectiveness Review

Step 1: Prong 3

c) Review customer value and strategic quality with a view to capturing the core components of customer value improvement.

As outlined in Figure 3.3 below, this three pronged literature review approach resulted in the capture of the core customer value improvement (CVI) components. (See Figure 3.3 Section B).

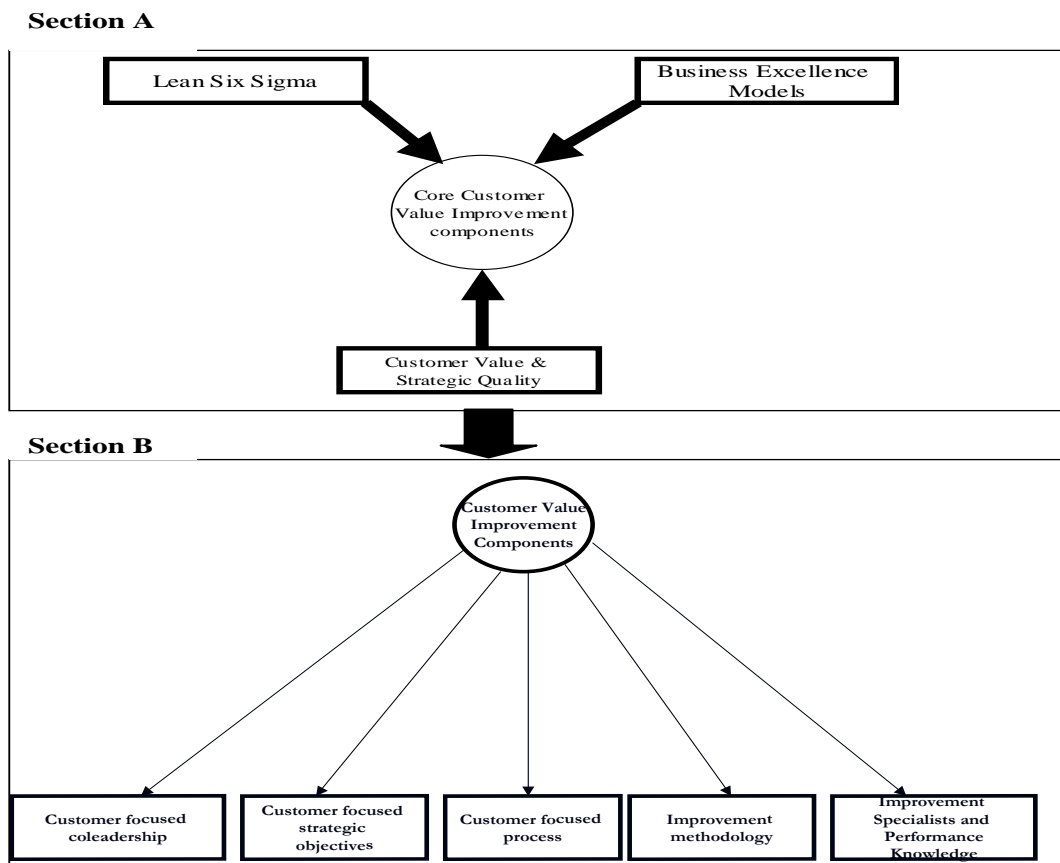


Figure 3.3: Literature Review Three Prong Approach

Step 2

The next step involved conducting a series of interviews with organisational quality experts in continuous improvement. A questionnaire (See Appendix C) was completed by the interviewees in advance of the interview. The organisational quality experts were selected based on their experience in continuous improvement and their certifications. Table 3.1 outlines the profiles of the personnel that were utilised for the interviews.

Table 3.1: Interviewee Profile

No	Position &	Country	Industry
1	Consultant (Internal and External Process Improvement) & Six Sigma MBB Certified with over 30 years experience in continuous improvement.	Ireland	Service
2	Quality Manager and Six Sigma MBB certified with over 20 years experience in continuous improvement.	Denmark	Electrical Casing manufacturing
3	External Process Improvement Consultant and Six Sigma Black Belt Certified with over 25 years experience in continuous improvement.	Ireland	Service
4	Internal Improvement Specialist and Certified BB with over 15 years experience in continuous improvement.	USA	Medical Devices
5	Operations Manager and Lean Certified with over 20 years experience in continuous improvement.	USA	IT Services
6	Product Development Specialist and Certified MBB with over 20 years experience in continuous improvement.	USA	Medical Devices
7	Head of Quality and MBB Certified with over 20 years experience in continuous improvement.	Germany	Medical Devices

The first round of interviews resulted in the development of a path conceptual framework (See Figure 3.4).

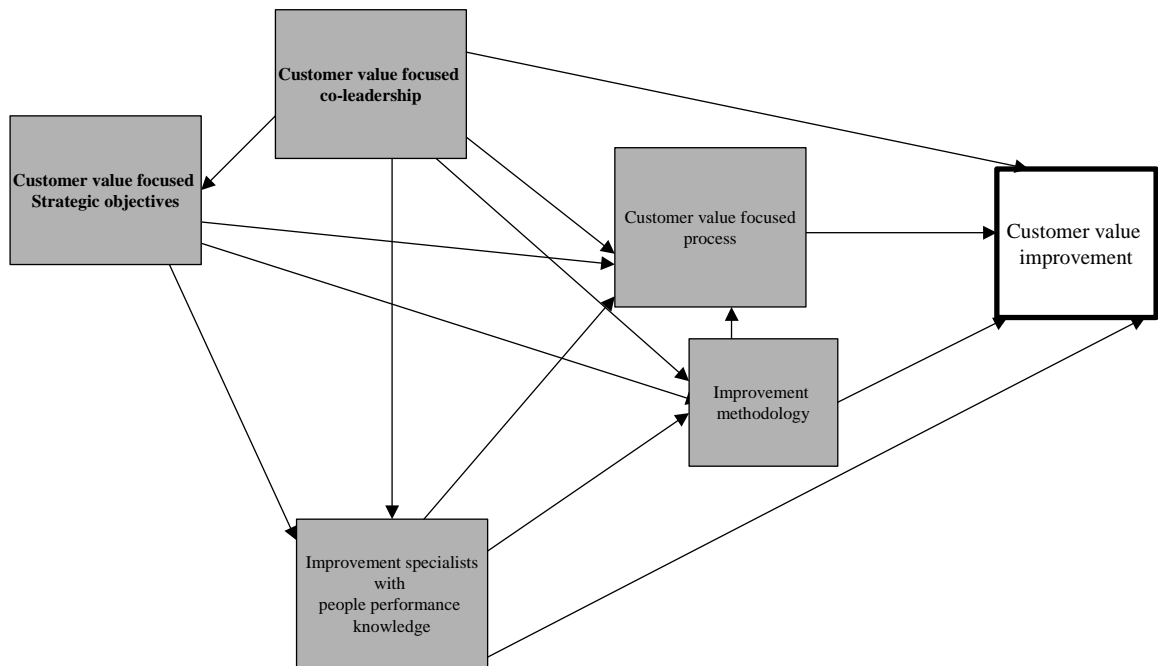


Figure 3.4: Path Conceptual Customer Value Improvement Framework

The path framework presented on Figure 3.4 was then used for the second round of interviews. Figure 3.5 shows the conceptual framework that was developed from the round two of the interviews.

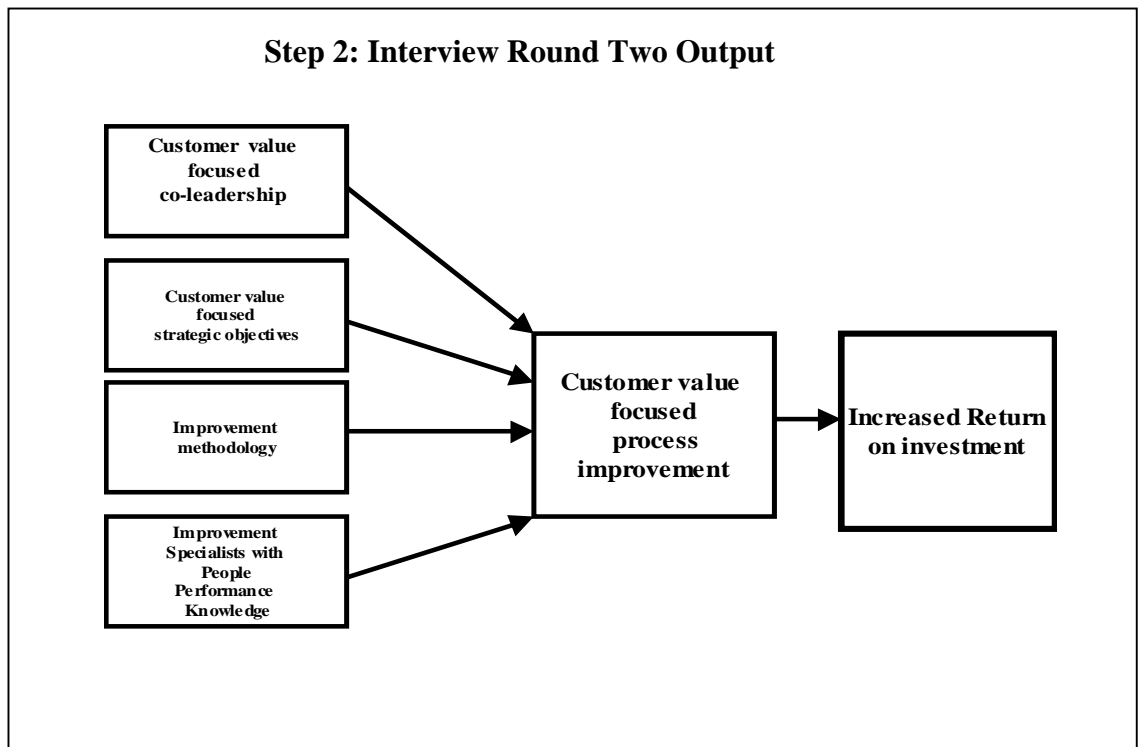


Figure 3.5 Customer Value Improvement Conceptual Framework

The second round of interviews resulted in consensus being reached on the conceptual framework presented on Figure 3.5. Also, there was agreement around the fact that the four components (i.e customer value focused co-leadership, customer value focused strategic objectives, improvement methodology and improvement specialists with people performance knowledge) combine to drive process customer value improvement.

Step 3

The third step in the methodology involved the circulation of a questionnaire (See Appendix D) to companies from the IDA company list. 610 companies were contacted from the IDA company. 152 completed surveys were returned for analysis. Appendix F shows the company demographics. This third step validated

the framework presented on Figure 3.6. In addition to the development and validation of the framework presented on Figure 3.5, the study answered the following research question:

Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of organisational customer value improvement?

The papers detailed in Figure 3.6 provide deeper knowledge to organisational leaders and improvement specialists for effective adoption of organisational customer value improvement or continuous improvement.

Research Aim:

1. To comprehensively explore customer value improvement(CVI) with a view to the identification of the key components.
2. To develop and validate a new customer value improvement (CVI) for increased ROI.
3. To provide in-depth knowledge for organizational leaders and improvement specialists on how customer value improvement can be adopted effectively inside the organisational setting.

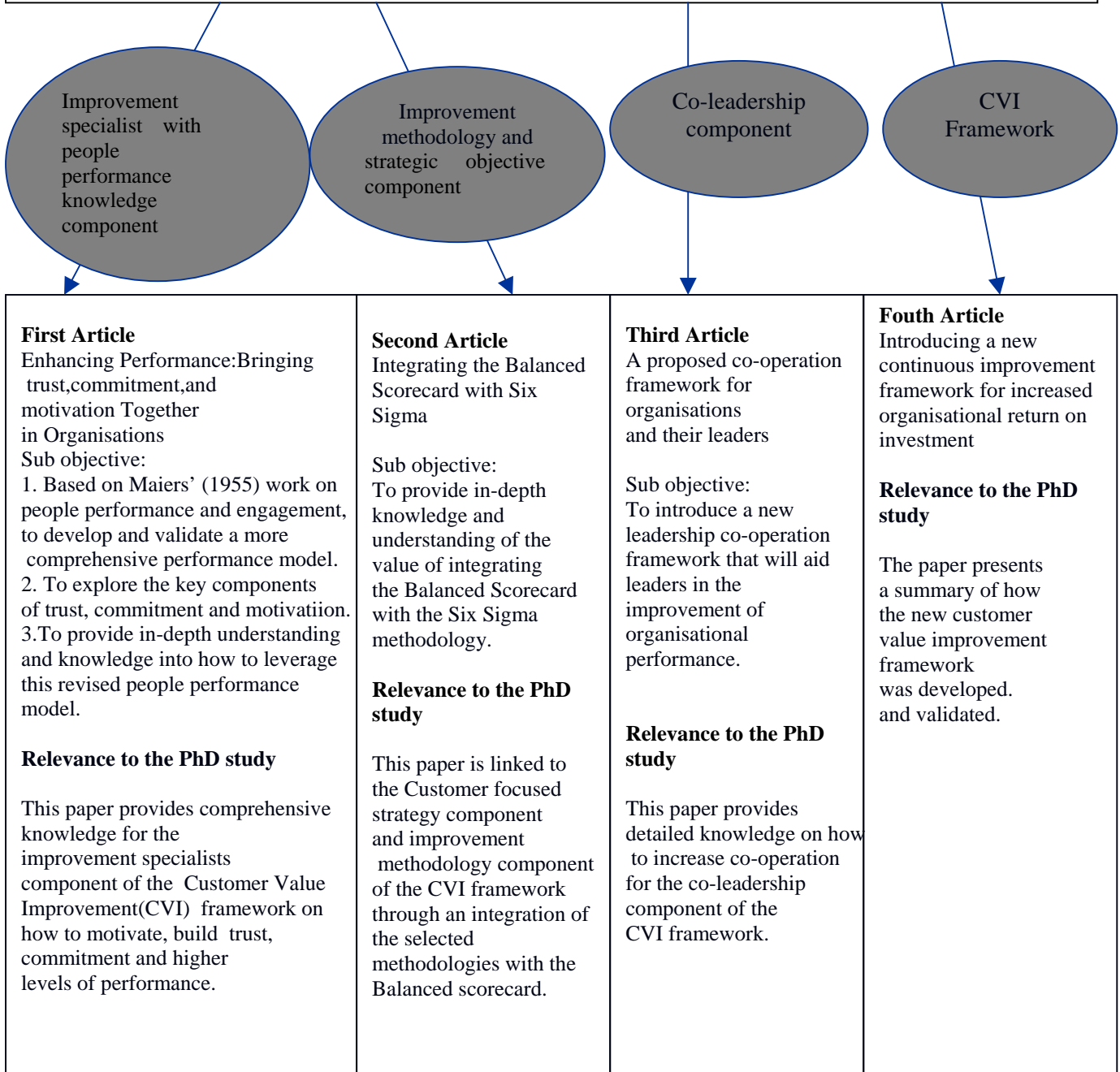


Figure 3.6: Linkage of papers to overall research objective

3.1.3 Linkage of papers to research objectives

3.1.3.1 Introduction

The following sections provide detail on the linkage of the papers to the overall research.

3.1.3.2 Paper One: Enhancing Performance: Bringing trust, commitment and motivation together in organisations.

Since its inception at Motorola in the 1980s, Six Sigma has been used by many organisations to improve customer value and organisational performance. The literature review identifies a gap with respect to the execution of Six Sigma project execution. In an article titled “Behaviour tests Six Sigma”, del Angel and Pritchard (2008), change and performance improvement consultants, report that technically sound change designed by Six Sigma, Lean or similar applications could be at risk of failing unless supported by the appropriate behavioural change. del Angel and Pritchard (2008) add that “experiences in the field indicate that most managers come up short in their approach to the behavioural elements of change”. Antony and Snee (2010) add that MBBs and BBs need to deal effectively with teams and group dynamics in addition “to understanding human behaviour”. An improvement specialist role is focused on leading change at the process for the benefit of the organisation. Bennis and Namus (2007) argue that “the capacity to generate and sustain trust is the central ingredient in leadership” (p. xiv). Bennis and Namus (2007) add that “the trust factor is the social glue that keeps any system together. It’s hard to gain but easy to loose” (p. xiv). Dirks and Ferrin (2001) provides further insight into how trust aids leaders by contending that trust results in “more positive attitudes, higher levels of co-operation (and other forms of workplace behaviour), and superior levels of performance”(p. 450).

The empirical evidence from this study also highlights the improvement specialist knowledge gap with respect to building trust. The overarching view from the empirical research was that improvement specialists are change leaders that need to be able to

build trust among teams and motivate individuals and teams for higher levels of performance. The reason that was cited for this knowledge gap is that many education programmes (e.g Six Sigma Green Belt, Six Sigma Black Belt, Six Sigma Master Black Belt) focus on the hard technical elements. A scan of the Inderscience and Emerald databases between 1992 and 2011 revealed no paper available that incorporated trust, commitment, motivation and performance.

This empirical paper bridges this gap by providing detailed knowledge for improvement specialists on how to build trust, commitment and enhance motivation and performance. In addition to providing detailed knowledge on trust and motivation, the paper extends the work of Mayer (1955) by developing a new model for performance in organisations.

Overall, this paper will benefit improvement specialists through the provision of knowledge on how trust, commitment, motivation and performance are connected. In addition, the paper answers the research question below.

Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of organisational customer value improvement?

3.1.3.3 Paper Two: Integrating the Balanced Scorecard with Six Sigma.

In an empirical study on the critical success factors for Six Sigma, Antony et al's (2007) study cites the linkage of Six Sigma to the business strategy as the most critical success factor. Similarly, Asif et al (2009) contends that there is potential for competitive advantage when Quality Management Programmes (QMP) are "effectively aligned with organisational strategy and institutionalised in an organisational setting (p. 788). Despite the importance of this link, a scan of the Inderscience and Emerald databases between 1992 and 2012 revealed no paper available that looked at the link between Six Sigma and business strategy. This paper bridges this gap by providing new insights on the integration of Six Sigma with the Balanced Scorecard.

Many organisations use the Balanced Scorecard as the cornerstone for the strategic management system. The balanced scorecard incorporates all the key elements of strategy through the perspectives of financial, customer, internal business and learning and growth (Kaplan and Norton, 1992). By combining the balanced scorecard with

various improvement methodologies, organisations will have the potential to optimise the balanced scorecard metrics. In order to achieve this integration, this paper puts forward a new framework, based on the Plan-Do-Check-Act cycle that connects the balanced scorecard to improvement methodologies. This paper takes a novel approach for the integration framework by identifying the integration leverage points through the strengths and weaknesses of both the Balanced Scorecard and Six Sigma.

The key contribution of this paper is that it bridges the knowledge gap with respect to the link between Six Sigma and organisational strategy. This framework also provides organisations with the flexibility to customise the perspectives to suit specific organisational needs. This paper is directly related to the study aim below through the provision of deeper knowledge on how the improvement methodology component can be integrated with the strategy component of the Customer Value Improvement framework that is presented on Figure 3.5. This paper was published in the TQM journal and has been downloaded 1056 times (See Appendix E).

3.1.3.4 Paper Three: A proposed co-operation framework for organisations and their leaders.

Getting the most out of people and teams - a continuous challenge for organisational leadership - is more important now than ever before. Working together in teams involves interdependence, which naturally requires co-operation. Regarding the theme of co-operation, numerous authors emphasise its importance in business (e.g. Chen et al, 1998; Deutch, 1949; Fink and Kessler, 2010; Tanghe et al, 2010). For instance, Tanghe et al (2010) contend that co-operation enhances group effectiveness. Fink and Kessler (2010) go further and contend that the ability to maintain successful co-operation “is a critical resource in its own right” (p. 469). In addition, their large-scale survey (Fink and Kessler, 2010) conducted in three European countries reveals that co-operative relationships contribute to organisational performance. However, a challenge can exist for an organisation to attain a high level of co-operation, despite its relevance to business. A scan of the Inderscience and Emerald databases between 1992 and 2012 revealed no paper available that provided knowledge to organisational leaders on how co-operation could be enhanced. This paper bridges this gap.

The power of co-operation for organisational leaders lies in its ability to enhance group effectiveness and increase performance. One common theme that emerged from the empirical research was that organisational leaders need an understanding on how to build trust, enhance commitment and co-operation and manage risk inside the organisational setting. The paper bridges this gap by providing detailed knowledge and understanding for organisational leaders on how trust can be used to reduce risk and build higher levels of co-operation. In addition, a new co-operation framework is developed that has application for all organisational leaders involved in risk mitigation.

With respect to the PhD research question below, the paper provides deeper knowledge for organisational leaders on how co-operation can be enhanced through trust building.

Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of organisational customer value improvement?

This paper is connected to the co-leadership of the new customer value improvement framework presented on Figure 3.5.

3.1.3.5 Paper Four: Introducing a new continuous improvement framework for increased organisational return on investment.

Conti (2007) makes a call for further innovation in excellence frameworks. Conti (2011) adds to this call by contending that models should have developed to cover all the value generation activities. This paper answers Conti's call (2007, 2011) and makes a significant contribution to the knowledge gap by developing and validating a new framework for continuous improvement that incorporates all value generating activities. The consensus from the empirical research was that the four components of customer value focused co-leadership, customer value focused strategic objectives, improvement specialists with people performance knowledge and improvement methodology represent the four forces of customer value improvement. By developing and validating this new framework for continuous improvement the paper provides answers to the research questions below.

Q1. What are the key components of customer value improvement in organisations for increased ROI?

Q2. How are these components of customer value improvement connected inside a customer value improvement framework for increased ROI?

The following sections provide more detail on the research process and the adopted methodology.

3.2. Research Process

An in-depth knowledge of the overall research process (See Figure 3.7) aids the optimisation of the research deliverables quality and, in addition, helps to understand where the data collection fits (Hart, 2009) into the overall picture of what the research is trying to achieve. Also, this big picture thinking helped to ensure that the research design was appropriate for this PhD study.

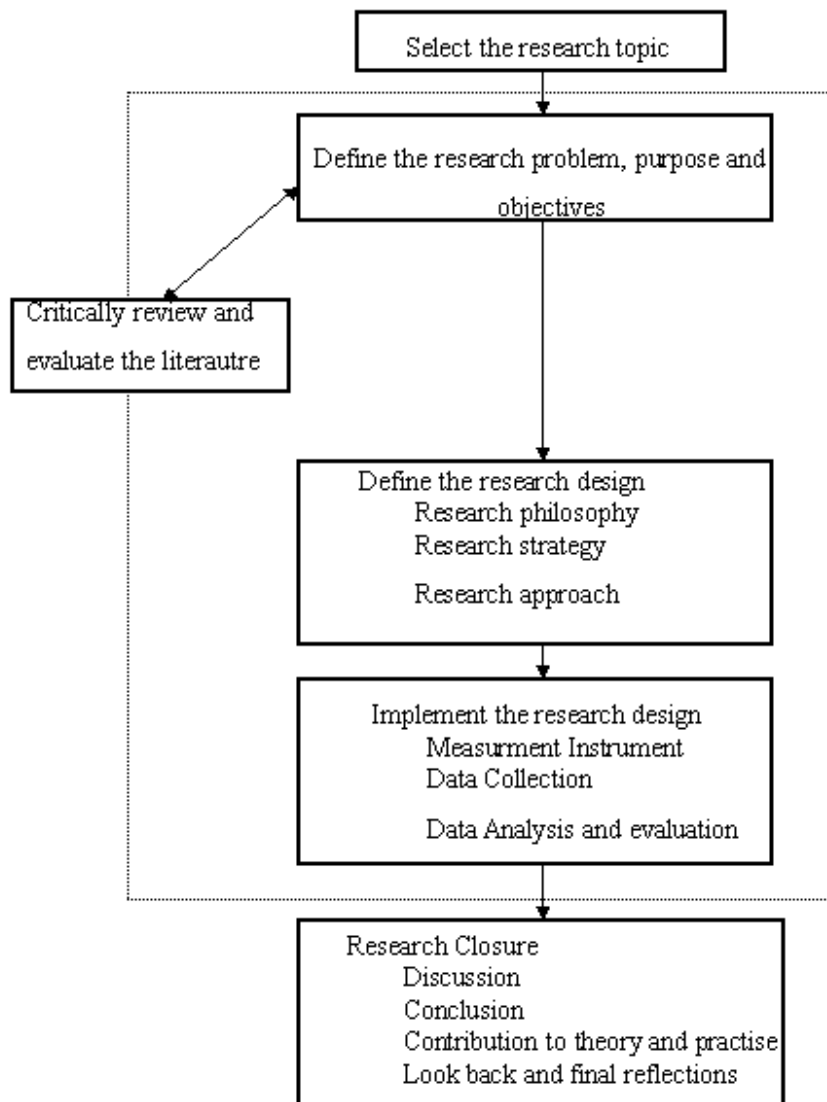


Figure 3.7: Research Process

Yin (2003) articulates the research sequence clearly

“Research Design is a logical sequence that connects the empirical data to a study’s initial research questions and, ultimately, to its conclusion”

(p. 20)

For the purposes of this study a logical flow was formed between the study aim, research question, research approach, the research instrument and analytical techniques.

The researcher contends that this logical flow approach impacted positively the quality of the research output.

Figure 3.7 proved to be useful starting points for the positioning of the study and the subsequent decision-making with respect to the research philosophy, research strategy and research approach. As outlined on Figure 3.7, the starting point for research is to select the topic. From the research topic, the researcher decided on the research problem, purpose and objectives. The research problem and objectives can go through a series of iterations as a consequence of new knowledge and reflection. In the case of this PhD study, the study objectives, which initially focused on the development of a more effective Lean Six Sigma methodology, evolved to a broader objective that focused on customer value improvement or continuous improvement.

3.2.1 Research Philosophy

Saunders et al (2007) differentiates between two forms of research philosophy: positivism and phenomenological. Positivism (Saunders et al, 2007) adopts the philosophical stances of the natural scientist with the researchers assuming the role of the objective analyst. Anderson (2004) contends that positivist research focuses on the collection of facts and the exploration of relationships between different factors. On the other hand, the phenomenological research philosophy (Groenewald, 2004) is concerned with describing phenomenon without the use of any pre-given frameworks. Welman and Kruger (1999, p. 189) add to Groenewald's (2004) assertions by contending that phenomenologists are concerned with understanding social and psychological phenomena from the perspectives of people involved. For this research study, the positivism research philosophy was utilised. The researcher adopted the positivism philosophy because, firstly, this research uses pre-given theory. Secondly, the adoption of pre-given theory ensures that the merits of existing theory are incorporated into the new theory. Thirdly, as per positivism philosophy, the researcher takes the deliberate role of an objective analyst. As an objective analyst, the researcher had the freedom to collect model validation data from a multitude of organisations and industrial settings.

3.2.2 Research Approach

The research approach can be either inductive or deductive. For an inductive study, empirical evidence can act as the basis for theory building. Conversely, the deductive approach is focused on testing theory. The deductive approach uses pre existing theory as a basis for the research. Critics of the deductive approach would cite the tendency to construct a rigid methodology without scope for alternative explanations, as being a limitation of the deductive approach. For this study, the deductive approach was used in preference to the inductive approach because existing theory was used as a platform for the development of the new framework. As a solution for this major deductive approach limitation, open questions were added to the primary questionnaire to allow respondents the latitude to include additional customer value improvement framework components to the components already included in the questionnaire.

3.2.3 Research strategy and data collection methods

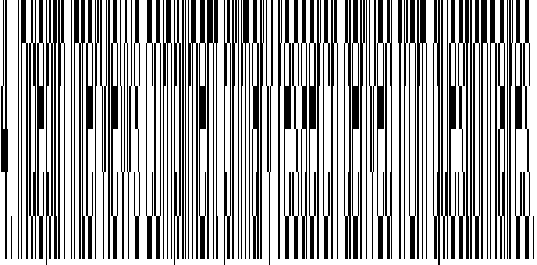
According to Saunders et al (2007), there are five different research strategies. They are experiment, survey, grounded theory, ethnography and case study. The research strategy chosen is linked to the research question and the constraints of the research project. For example, while a case study allows a researcher to penetrate deeply into a complex problem, the research may not be applicable outside the specific organisational setting. The survey strategy is usually associated with the deductive approach. Saunders and Lewis (2003) note that the survey strategy “allows the collection of a large amount of data from a sizeable population in a highly economical way” (p. 92). Bryman (1988) definition sheds light on the effectiveness of the survey:

“Survey research entails the collection of data on a number of units and usually at a single juncture in time, with a view to collecting systematically a body of quantifiable data in respect of a number of variables which are then examined to discern patterns of association”. (p. 104).

For this study, the survey technique provided the researcher the latitude to collect data points from a large number of organisations.

The data collection method is a means of communication between the researcher and the respondent. The over-riding objective is to collect the most accurate data that will

meet the research objective. In order to address this decision in a comprehensive manner, a review of data collection methods was carried out from a cost, time and effectiveness standpoint. Table 3.2 lists some of the pros and cons associated with each data collection method.

For this study, the data is collected using a multi-method approach. This triangulation approach (Hart, 2009) uses the in-depth-interview and questionnaire data collection techniques to increase the validity of the findings. Hart (2009, p. 1) contends that quality research is defined by the level of research breadth and depth (Hart, 2009, p. 1). The researcher believes that the questionnaire approach provides the research breadth with the in-depth interviews providing the research depth.

3.3 Research Instrument

The company questionnaire used for validation of the customer value improvement framework is presented in Appendix D. Prior to developing the instrument for validating the framework, the researcher incorporated the study objectives into the research instrument:

- a) What are the key components of customer value improvement?
- b) How are these components of process customer value improvement connected inside a customer value improvement framework for increased ROI?
- c) What knowledge is required by organisational leaders and improvement specialists for effective adoption of customer value improvement?

The customer value improvement framework questionnaire (See Appendix D) was structured into four main sections. The first section served as an introduction and provided a definition of the customer value improvement components. The second section asked respondents to rate the customer value improvement framework components for driving customer focused process improvement. In this section of the survey, the researcher probed for the possibility of missing customer value improvement (CVI) components. The next section focused respondent's attention on rating the overall effectiveness of the framework for increased organisational return on investment (ROI). The fourth section probed for qualitative data on knowledge and skills required by leaders and improvement specialist for driving customer process improvement with the final section probing for demographic organisational information.

3.4 Selecting the sample size

The sampling frame choice, a list or definition of the population from which the sample will be drawn, impacts significantly on the study output. The key consideration centred around collecting data from a sample that was representative of the target population. Both the sampling frame and sampling plan are addressed in this sub section. The primary research data for the customer value improvement framework validation was collected through the circulation of questionnaires to companies selected from the Irish Development Authority (IDA) company list (IDA, 2012). This company list consists of

760 companies that have a presence in Ireland. The researcher found this list very suitable because it included companies from a cross section of industries. This represented a good fit for the scope of this study. In addition, it included the company phone number, address, product and industrial sector. 610 companies on the IDA company list were contacted. In total, 152 completed surveys were received for analysis.

3.5 Sampling

The ultimate goal of sampling is to draw samples that are representative of the population. Due to the powerful parametric capability of probability sampling, the researcher favoured probability sampling for this study.

Saunders and Lewis, (2003) classifies probability sampling into five categories:

- Simple Random
- Systematic
- Stratified random
- Cluster
- Multi stage

Simple random sampling involves the researcher selecting random samples from the sampling frame using random sample tables or a computer. Simple random sampling was chosen over the other methods because, firstly, simple random sampling was suitable for this study research problem, and secondly, there was no benefit to be gained by introducing quota, strata, cluster or multi stage sampling.

Numerous studies have been conducted on response rates. For example, in a meta analysis of response rates, Anseel et al (2010) reports that

“an analysis of response rates in top-management samples found a mean response rate of 32% (Cycyota and Harrison 2006) in contrast to previous average estimates of 57% (Roth and BeVier 1998). Similarly, Baruch and Holtom (2008) found that response rates from organisational representatives (mostly top executives) were considerably lower than for other respondents (35.7% vs. 52.7%)”

(p. 336)

Based on this meta analysis study (Anseel et al, 2010) and the researchers experience, a targeted response rate of 20% was set. 610 companies on the IDA company list were contacted.

3.6 Data analysis

As preparation for the empirical data analysis, the researcher learned how to use structural equation modelling (SEM). The SEM learning was completed through 4 days of training from an expert in SEM. A SEM model was set-up in SPSS Amos and Mplus to assess the results. The SEM output did not provide any valuable contribution. Consequently, the researcher utilised SPSS 19 for conducting the data analysis.

3.7 Conclusion

The three strand literature review approach provided the platform for the empirical phase. The two stage interview process was a very significant phase of the research. The key lessons taken from this area of the study is that an in-depth understanding of the pros and cons for all the various research options provides a robust platform for the selection of the best methodological path. Finally, regardless of the pros and cons of each data collection medium, the skill of the researcher in building trust with potential respondents and administering the research instruments impacts positively on the response rates and the quality of the research output.

Chapter Four: First Article

4.1 Introduction

First, the chapter outlines the methodology that was adopted for this article. Second, the chapter concludes by presenting the article.

4.2 Methodology

This article introduces and then connects the concepts of trust, commitment, motivation and performance. The article begins by carrying out a literature review of trust, commitment, motivation and performance. The Morgan-Hunt Commitment Trust theory is reviewed in this section. This literature review section is then followed by a two strand empirical phase. The first phase of the empirical research ascertains the impact of trust on commitment in one multi national manufacturing plant using the survey approach.

The second phase of the empirical research, which sampled a range of multinational organisations, sought Human Resource managers' opinions on both specific motivational influences in the workplace and specific performance factors in the workplace.

4.3 Article One

First Article: Enhancing performance: Bringing trust, commitment and motivation together in organisations

Journal	Journal of General Management
Author	Heavey, C., Halliday, S.V., Gilbert, D. and Murphy, E.
Year	2011
Volume	Volume 36 (3)

Enhancing Performance: Bringing Trust, Commitment and Motivation Together in Organisations

Abstract

This paper introduces and then connects the concepts of trust, commitment, motivation and performance. In specific terms, we ascertain what are the key components of trust in the workplace. Therefore, the overall aim of this paper is to deepen understanding of the value of the relational construct trust to organisational motivation and performance. Consequently, we survey one global multinational firm to confirm the Morgan Hunt (1994) Commitment-Trust theory, that trust is an antecedent to commitment. We then develop and test a revised performance model that is based on the work of Maier (1955) and Mayer et al (1995). This second survey, which sampled a range of multinational organisations, sought Human Resource managers' opinions on both specific motivational influences in the workplace and specific performance factors in the workplace. The results show that all aspects of the construct trust tested in this paper have a significant impact on motivation and performance. In affirming this, we conclude by proposing refinements to Maier's (1955) existing performance model, which will assist management in trust building and also provide management with a deeper understanding of the importance of trust and motivation in organisational performance.

Keywords: trust; commitment; motivation; performance.

Introduction

Today, many multinational organisations operate in globalising competitive marketplaces with organisations becoming increasingly focused on finding ways to optimise their performance. Our initial question is whether, given the current economic pressures that are transforming the corporate landscape with a myriad of organisations

downsizing and restructuring, is it worthwhile for organisations to focus on internal relationships? For the Smurfit Business School has suggested on its website:

The environment in which managers operate is increasingly challenging. We face tougher competitive challenges, in compressed timeframes forcing faster decisions, often with severely limited resources. The imperative to get the best out of ourselves and the people around us has never being greater. This is further complicated by the emerging realisation that sustainable high performance can only be achieved when people are treated in a balanced, integrative way.

Smurfit Business School (2010)

Relationship building and trust are central to this theme. This response to the downturn highlights that trust in organisations is more important now than it ever has been before. Stephen Lehane, group HR and Corporate Affairs director of Alliance Boots articulates (Smedley, 2009) it very clearly on the front cover of *People Management*: “The big HR challenge is to develop trust”. Lehane (Smedley, 2009) believes that the basic philosophy of HR is to create the conditions in which superior performance becomes more predictable. These conditions are created by people understanding what is expected of them and by people trusting the organisation. Yet the existence of these conditions cannot be taken for granted. Hurley (2006) recently surveyed trust levels to measure and quantify them in the organisational setting. Among 450 executives across 30 companies, he found that, “Roughly half of all managers don’t trust their leaders” (2006, p2). Hurley (2006) concludes by making a call to managers “to develop a better understanding of trust and of how to manage it” (2006, p. 2).

Decades ago Levitt (1983) outlined the importance of relationships in business: “The purpose of a business is to get and keep a customer” (p. 101). To do this requires customer centric people. Johnson et al (2005) view people as possibly the most important resource of an organisation (p. 448) with climate building and motivation of individuals crucial to the success of the organisation (p. 397). People-related issues are therefore a central concern for most managers in organisations and not simply for HR

specialists. The CIPD 2009 Employee Outlook (CIPD, 2009) survey report states that the lowest employee satisfaction scores are related to the chances of promotion, the way change is managed in the organisation and leadership by top management. This report, based on an online survey of 3,487 employees confirms Hurley's (2006) earlier findings on leadership and trust:

“Only 19% say that their senior managers do not need to improve trust levels”.

Chartered Institute of Personnel and Development (2009)

Given that there is now a substantial body of knowledge on the importance of relationships and trust, we focus in detail on the impact of one relational construct trust, on another, commitment, in the context of a multinational organisation. Additionally, we ascertain what are the key components of trust and performance in the workplace. Through the two studies presented in this paper, we provide answers to the following managerial questions:

1. As per the Morgan Hunt (1994) Commitment-Trust theory, what is the level of association between trust and commitment?
2. What is the level of association between trust and motivation?
3. What is the level of association between motivation and performance?
4. What are the key components of performance?

By answering these questions, the paper makes a positive contribution to the overarching theme on the value of the trust construct to organisational performance. The paper is structured into three sections: The first part provides an insight into the key constructs: trust, commitment, motivation and performance. The second part details the methodology and provides an analysis and evaluation of the empirical data. The third part provides insights into the implications of this research for organisations and also proposes areas for future research.

Trust

Mayer et al (1995) highlight the ubiquitous nature of trust with trust being cited in such areas as “communication (Giffin, 1967), leadership (Atwater, 1988), management by objectives (Scott, 1980), negotiation (Bazerman, 1994), game theory (Milgrom and Roberts, 1992), performance appraisal (Cummings, 1983), labour-management relations (Taylor, 1989) and implementation of self managed work teams (Lawler, 1992)” (p. 709).

Also, Dirks and Ferrin (2001) literature review on trust in the organisational setting, reports that trust results in “more positive attitudes, higher levels of co-operation (and other forms of workplace behaviour), and superior levels of performance”(p. 450). Similarly, Golembiewski and McConkie (1975), Jones and George (1998), Mayer et al. (1995) concur with this view on the benefits of trust in organisations. Given the ubiquitous nature of trust in organisations and the shared views on its benefits (e.g Dirks and Ferrin, 2001; Mayer et al; 1995) to organisations, the researchers ask the question: How do we define trust in organisations?

Hosmer (1995) defines trust as:

“Trust is the reliance by one person, group or firm upon a voluntarily accepted duty on the part of another person, group or firm to recognise and protect the rights and interests of all others engaged in a joint endeavour or economic exchange”.

(p. 392)

Gordon (2000) has a rich understanding of trust, as it applies to the task of selling in the new economy. Gordon (2000) characterises trust building as a “give-and-take” (p. 38) process and stresses that trust building centres upon the sales basic of putting the customer first, rather than merely functioning as a risk reduction strategy.

Trust has been used to describe both an antecedent to satisfaction and a response to cumulative perceptions of service quality (Jevons and Gabbott, 2000). If this were simply true, then we discover that trust is continuously present, as is air, and if so, is not relevant for research by management scholars. Instead, an answer can be found, which solves this conceptually. “Placed trust” and “trust as response” are conceptually

distinguishable (Halliday, 2004). Trust which precedes perceptions of service quality (“placed trust”) is one sub-category; trust that is built or developed, but is essentially a response is another.

This “trust as response” is generally understood in the literature to contribute to loyal purchasing by creating commitment (Han et al., 1993). Doney and Cannon (1997) identify five distinct processes by which trust can develop in business relationships. This can take place over time and once again, is an expression of the dynamism (“a dynamic and continuous variable, rather than an either/or phenomenon” Wicks and Jones (1999 p. 101)) and contextuality of trust. These processes lead to five levels of trust in relationships from fragile to high, where intentionality is strong (Jevons and Gabbott, 2000). Certainly “trust as response” (often also termed “affective”) can be built by creating social bonds (McAllister, 1995). This trust can therefore be used in creating marketing relationships. Das and Teng (1998) suggest that trust contributes to confidence, and confidence encourages customers to commit. So given this diverse range of definitions, are there common factors that lead to trust?

Factors that lead to trust have been researched repeatedly in the literature. Mayer et al (1995) conducted a comprehensive review of trust and trust factors. This research (Mayer et al, 1995) resulted in the consolidation of 23 author’s views regarding the factors that influence trust. Mayer et al (1995) noted some authors suggest that trust can be characterised by one or two factors: Strickland (1958), Benevolence; Soloman (1960), Benevolence; Cook & Wall (1980), Trustworthy, Intentions and Ability; and Kee & Knox (1970), Competence and Integrity. According to Mayer et al (1995), three trust factors, which appear consistently in the literature, explain the major proportion of trust. These factors are ability (e.g Cook & Wall, 1980; Sitkin and Roth, 1993; Good, 1988) benevolence (e.g Larzelere and Huston, 1980; Solomon, 1960; Strickland, 1958) and integrity (e.g Butler, 1991; Lieberman, 1981; Ring and Van de Ven, 1992). Gubbins and MacCurtain (2008) acquiesce to this view and argue that these three factors “encapsulate many of the different typologies” (2008, p582) of trust. Furthermore, Mayer et al’s (1995) model represents a robust model for exploring the antecedents to trust (Brockner et al, 1997; Jarvenpaa and Leidner, 1999; Robinson, 1996). For these reasons, Mayer et al’s (1995) trust factors are used to operationalise trust for the

empirical studies detailed in the methodology section of this paper. Now that we have uncovered the components of trust, the researchers pose the question: Are there any outcomes to trust that an organisation can leverage?

Commitment –Trust Theory

This commitment-trust theory examines the dual role of commitment and trust between a company and its business partners. Similar to Achrol (1991), Morgan and Hunt (1994) posit that “trust is a major determinant of relationship commitment” (p. 24). Also, Morgan and Hunt (1994) in their prominent article contend that “trust and commitment are central to successful relationship marketing, not power and its ability to ‘condition others’” (p. 22). Specifically, Morgan and Hunt’s study (1994) of 204 US tyre dealers demonstrated statistical significance at $p < 0.01$ level that there is a positive relationship between trust and relationship commitment.

Morgan and Hunt (1994) further add that when both commitment and trust are present, “they produce outcomes that promote efficiency, effectiveness and productivity” (p. 22). Similar to Morgan and Hunt (1994), Martin et al (2004) believe that trust influences commitment and that “a strategy based on the development of a climate of trust has more chance of evolving into the establishment of an ongoing relationship” (p. 69). Martin et al (2004) concluded from their empirical study of 214 Spanish consumers that business agents in direct contact with the customer showing “an image of honesty and integrity” (p. 69) is the main antecedent to commitment. For this study Martin et al (2004) chose to look at the relationship between Spanish consumers and garages because this service is characterised by a repetition of interactions and also because “the customer of this service normally wants to establish lasting relationships with his/her usual garage”. (p. 62). It is worth noting that Martins et al’s (2004) honesty and integrity commitment antecedents are closely related to Mayer et al’s (1995) trust factors of integrity and benevolence. In summary, the Morgan and Hunt (1994) study and Martin et al (1994) highlight the importance of trust and commitment in business and also the relationship between the two constructs, trust and commitment. As a consequence of the Morgan and Hunt theory (1994), we now examine the relational construct, commitment.

Relationship Commitment

We see commitment as what is built from a base of “trust as response”. Conceptually, the commitment of greatest relevance to marketing is made up of two aspects: affective commitment and calculative commitment (Geyskens et al, 1998). The calculative aspect of commitment is linked to the necessary calculation of expected benefits and costs that are carried out prior to making a decision on the establishment and maintenance of a relationship (Meyer and Allen, 1991). Conversely, affective commitment is linked to the emotional side and refers to an attachment to an organisation with a desire to be tied to a relationship and a feeling of belonging and responsibility (Martin et al, 2004).

Commitment has received considerable attention in the literature from a multitude of authors and practitioners (e.g Armstrong, 2006; Cook and Wall, 1980; Edwards, 2005; Edwards and Peccei, 2007; Li et al, 2006; Martin et al, 2004; Meyer et al, 2006; Morgan and Hunt, 1994; Mowday et al, 1979; O’Reilly, 1989; Porter et al, 1974; Richards, 2004; Rylander et al, 1997; Wetzels et al, 1998). In one of the most widely used view of organisational commitment (OC), Mowday et al (1979) define Organisational Commitment (OC) as “the relative strength of an individual’s identification with and involvement in an organisation” (p. 226). Also, Mowday et al (1979, p. 226) considers that it is made up of three components:

1. A strong belief in and acceptance of the organisation’s goals and values.
2. A willingness to exert considerable effort on behalf of the organisation.
3. A strong desire to maintain membership of the organisation.

Similar to Mowday et al’s definition, Salancik’s (1977) definition (cited in Armstrong, 2006) of commitment is behaviour based: “state of being in which an individual becomes bound by his actions to beliefs that sustain his activities and his own involvement.” (p. 273). Also, the components of commitment cited by Armstrong (2006) are very similar to Porter et al’s (1974) components and Mowday et al’s (1979) components:

Armstrong et al’s (2006) components are:

1. An identification with the goals and values of the organisation.
2. A desire to belong to the organisation.

3. A willingness to display effort on behalf of the organisation.

Likewise, Porter et al's (1974) components are:

- (a) A strong belief in and acceptance of the organisation's goals and values.
- (b) A willingness to exert considerable effort on behalf of the organisation.
- (c) A definite desire to maintain organisational membership.

Edward and Peccei (2007) add to the work of Armstrong, (2006), Mowday et al. (1979) Porter et al's (1974) work by linking Meyer et al's (2006) definition to commitment categories. So according to Edwards and Peccei (2007), Meyer et al's (2006) definition of "a force that binds an individual to a course of action" (p. 667), includes "for example, affective commitment, continuous commitment, normative commitment, and associated cognate constructs such as value congruence, maintenance of membership, collective goals, value congruence, and obligation amongst other factors" (p. 28).

Overall, the researchers contend that there is similarity between the authors' views of commitment (Armstrong, (2006); Mowday et, 1979; Meyer et al, 2006; Porter et al, 1974; Salancik, 1977,) when they are viewed through the lenses of Geyskens et al, (1998) affective and calculative commitment categories. For example, we contend that Mowday et al's (1979) components can be categorised using both the affective and calculative components.

In practice, and in order for this to be useful to managers, the question arises: How can we operationalise the organisational commitment construct? Price (1997) has done a lot of work in the standardisation of work measures. In relation to commitment, Price (1997) argues that the Organisational Commitment Questionnaire (OCQ) developed by Porter (1974) and his colleagues is the most widely used measure of commitment. Porter's questionnaire (1974) addresses both the affective and the calculative (Geyskens et al, 1998) element of commitment and as outlined in the definition and component review of commitment, affective and calculative components encapsulate the essence of the commitment construct. Also, from a validity perspective, the Organisational Commitment Questionnaire(OCQ) is based on research carried out over a nine year period on 2,563 employees from 9 widely divergent work organisations. For all these

reasons, Porter's (1974) Organisational Commitment Questionnaire (OCQ) is used to operationalise the Commitment construct in the empirical study.

Motivation

The secret of motivation, the holy grail for business leaders, is something that management would pay dearly to possess. In 1968, Chung (1968) recognized this management need:

“The lack of a general theory of motivation in industry handicaps managers, not only in gaining an understanding of employee motivation, but in finding ways to approach the problems of motivating employees” (Chung, 1968, p. 63).

Frederick Herzberg (1968) shed some light on the reason for this lack of general theory of motivation in industry:

“The psychology of motivation is tremendously complex, and what is unraveled with any degree of insurance is small indeed” (p. 53).

Arnold et al (2005) attempts to unravel this complexity. Arnold et al (2005 , p. 310) believes that motivation is made up of three components:

Direction – What a person is trying to do.

Effort – How hard a person is trying.

Persistence – How long a person keeps on trying.

This component based view of motivation can be very powerful if the organisations find ways to measure and increase these motivational components. For example, Gray Blau (1993) assessed effort in a bank teller study “by filming each teller for a day and calculating the proportion of time he or she was engaged in work behaviour” (Arnold et al, 2005 , p. 310). Blau (1993) assessed the direction component of motivation by asking the tellers to indicate how they engaged in each of 20 different behaviours. Blau found (Arnold et al, 2005, p. 310) that “both the overall effort and the types of behaviour the tellers engaged in, predicted the quality of their work performance”. So now, given the complexity of motivation, we ask the question: How is motivation related to performance?

Performance and Motivation

Chung (1968) succinctly articulates the vision for organisational motivation and performance:

“Industrial psychologists and managerial practitioners have long been interested in searching for motivational factors that lead to a high level of motivation and performance”.

(1968, p. 63)

Chung’s (1968) performance model was based on the original work of Maier (1955) where performance is defined as a product of motivation and ability. Mullins (2002) is also in agreement with Maier’s (1955) definition of performance. In order to develop a comprehensive model of performance, Chung (1968) undertook an empirical study of 175 students at Louisiana State University. Performance data (Chung, 1968, p. 67) was obtained from student’s final scores and the ability scores were based on their entrance examination scores. Chung concluded (1968, p. 72) the correlation coefficient ($r = 0.66$) is statistically significant and that “the model is capable of predicting performance in students” (1968, p. 72).

Chung’s performance model is based on:

$$P = a A^{b1} N^{b2} I^{b3} E^{b4}$$

where A is ability, N needs, I incentives, E expectancies and where a is the constant and $b1 - b4$ are the coefficients of power for the variables.

For the empirical study detailed in the methodology section of this paper, we wanted to explore what scope there might be for managerial intervention to improve motivation and have chosen in this study to add, for this purpose, to this basic model of performance (Maier, 1955) by breaking the ability construct into the components of aptitude, training and experience (Mayer et al, 1995). This combination has never been tested before in the organisational setting.

Performance = function ([aptitude x training x experience] x motivation)

In summary, we conclude that three main themes emerge from the literature review. Trust is an antecedent to commitment and motivation in the organisational setting and

second, motivation is a key variable in the performance model. Third, trust is a key element in organisational motivation. These three themes form the basis for the empirical studies.

Research Methodology

The overall aim of this paper is to deepen the understanding of the value of the relational construct trust to organisational performance. We question whether trust is linked to increased commitment, motivation and performance in organisations.

In specific terms, the following questions are being posed:

1. As per the Morgan Hunt (1994) theory, what is the level of association between trust and commitment ?
2. What is the level of association between trust and motivation?
3. What is the level of association between motivation and performance?
4. What are the key components of performance?

Field based data was gained through the utilisation of two surveys.

Trust Commitment Study Methodology

The first survey, based upon a random sample of employees in one manufacturing organisation with a total workforce of 358 employees, was used to test the Morgan Hunt (1994) Commitment-Trust theory. For this first survey, we received 65 completed surveys out of a total of 111 distributed surveys (58% response rate). This response rate compares favourably with Martin et al's (2004) trust commitment survey of Spanish consumers (44% response rate) and Edwards and Peccei's (2010) study on organisational identification (31% response rate). The researchers contend that the face-to-face interaction during the distribution of the survey impacted favourably the response rate.

For this survey, trust was operationalised using Mayer et al's (1995) trust dimensions (Figure 1) with the commitment scale based on Porter's Organisational Commitment Scale (Price, 1997). The trust questions (Table 1) were constructed around the trust dimensions of ability, benevolence and integrity.

Table 1: Mayer et al's Trust Factors

Item	Explanation	Questionnaire Dimension	Survey Question No:
Benevolence	It is the extent to which a trustee is believed to want to do good.	Co-operative Environment People Centre Environment Honesty	Q.1 Q.2 Q.3
Integrity	Adherence to a set of principles that are deemed acceptable to the trustor. i)Consistency ii)Credibility iii)Strong Sense of Justice iv) Openness	Consistency Practises Credibility Practises Fairness in the Workplace Vertical Communication Horizontal Communication	Q.4 Q.5 Q.6 Q.7 Q.8
Ability	Consists of the components of aptitude, training and experience.	Training Competency	Q.9 Q.10

Cronbach’s alpha reliability test was utilised to validate the scale items in the survey. The Cronbach’s alpha yielded figures of 0.85 and 0.90 for trust and commitment respectively.

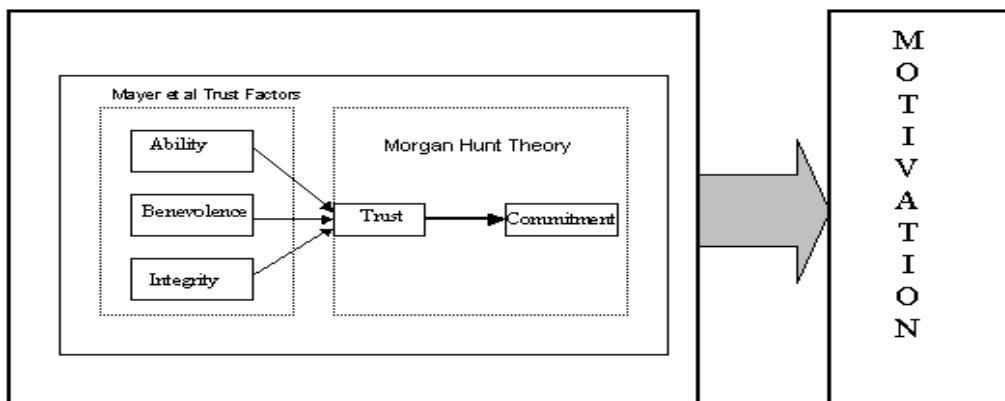


Figure 1: Trust –Commitment Model

Performance Study Methodology

The second survey, which was circulated to a random sample of 111 multinational companies based in Ireland, measured the influence of trust on motivation and also the influence of motivation on performance in the workplace. Based on 911 companies from the Irish Development Authority (IDA) company list (IDA, 2010). 111 Human Resource Managers of organisations were randomly selected. Each of the 111 HR managers were mailed surveys with prepaid return envelopes. 40 completed surveys were used as a basis for analysis. This represented a 36% useable response rate which

compares favourably with Edwards and Peccei (2010) study (31% response rate) on organisational identification and Martin et al's study of trust and commitment. Prior to mailing the survey, a phone call was made to each HR manager outlining the survey purpose and scope. Also, the following script was delivered during the cold call to each organisation:

“My name is _____. Can I speak to the HR manager please?

I am doing some research in the area of motivation and performance. To-date, I have carried out extensive research in the areas of trust, commitment, motivation and performance. I am seeking company's opinion on a number of related areas. Can I forward you a survey please for completion? It is completely anonymous. The results based upon individual responses will remain confidential with no individual being identified. It will take about 3 minutes to complete”.

We believe that this cold call pitch in addition to the letter accompanying the survey impacted favourably the response rate.

Mayer et al's (1995) trust dimensions are used to operationalise this key relational variable. The output from the reliability test yielded a Cronbach alpha of 0.82. A usable sample of 40 valid responses was processed for analysis. Both surveys used a Likert type five point scaling.

Findings

Trust and Commitment within an organisation

65 completed surveys from a random sample of employees inside one organisation were used as a basis for analysis. The Pearson's Product moment correlation coefficient, a test of association, is used to assess the relationship between trust and commitment. The correlation test revealed a strong positive correlation (Figure 2) between the two constructs[$r = 0.95$, $n = 65$, $p = 0.01$]. Despite the strong positive correlation, it is not possible to infer causation.

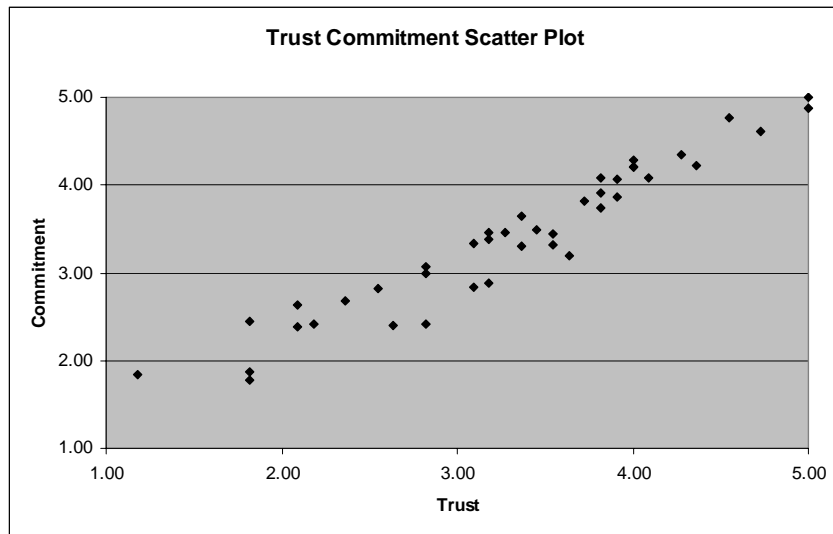


Figure 2: Scatterplot of Trust V Commitment

This empirical study validates the Morgan Hunt (1994) Commitment-Trust theory in relation to trust being an antecedent to commitment.

Performance Study Findings

A useable sample of 40 surveys was used as a basis for analysis. Ten questions based on Mayer et al's (1995) trust dimensions of ability, integrity and benevolence were utilised to ascertain the impact of trust on motivation. Figure 3 shows clearly that the collective view of the HR managers, is that trust has a strong association with motivation.

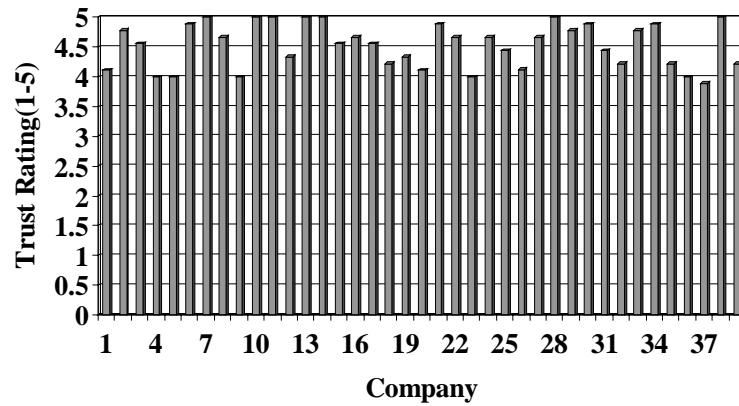


Figure 3: Organisational Rating for the Impact of Trust on Motivation

Secondly, HR Managers were asked to determine the level of importance that they associated with each variable of the Maier –Mayer et al Performance model.

$$\text{Maier –Mayer et al Performance Model} = \text{Motivation} \times \text{Experience} \times \text{Training} \times \text{Aptitude}$$

The survey was scored with a 1-5 rating, with a score of 5 being very important and a score of 1 being very unimportant. Figure 4 illustrates graphically the results of the Performance Model survey. All performance variables tested were deemed to be significant with motivation obtaining a higher rating than any of the other performance variables tested.

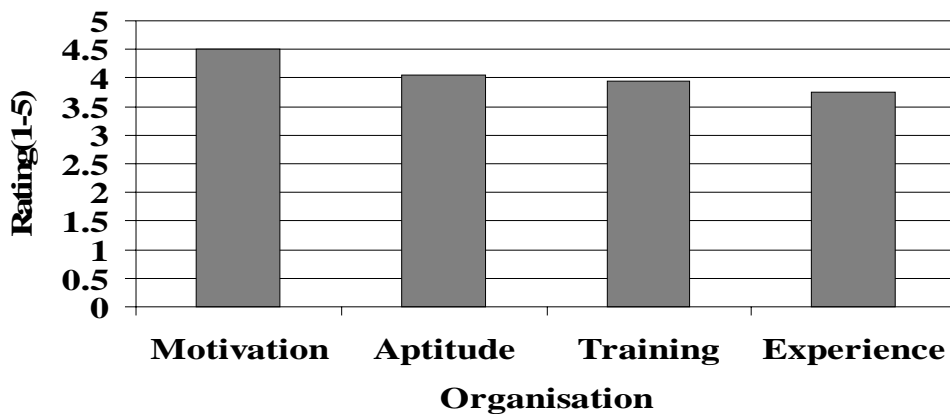


Figure 4: Performance Model Variable Ratings

The research also shows that experience, training and aptitude variables exhibit high ratings in the performance model. According to the collective view of the HR managers, these variables represent all the core variables of performance. A placeholder for extra performance variables was included in the survey. However, this did not reveal any new significant variables to the variables listed in Figure 4.

Discussion of the findings

The primary research validates the three main themes from the literature review. First, trust is an antecedent to commitment and second, motivation is a key variable in the performance model. Thirdly, trust is a key element in organisational motivation. The survey administered to the HR managers revealed that Mayer et al's (1995) core trust factors of ability, benevolence and integrity have a significant impact on motivation.

For the first study, the trust and commitment study of one manufacturing organisation, the survey (Figure 2) result indicates clearly that trust has a strong level of association to commitment. The researchers pose the question: How does our empirical study compare to other commitment studies? Despite the fact that our study was conducted in a manufacturing environment and the Morgan and Hunts (1994) study was conducted on automobile retailers both our study and Morgan and Hunt's (1994) study are statistical significant at the $p < 0.01$ level. We contend that this is linked to Levitt's (1983) assertions on people exchanges. Taking into account this viewpoint that business is about people to people exchanges (Levitt, 1983), we believe that there will be a correlation between trust and commitment irrespective of industrial sector.

For the second study, the performance study of multinational organisations, the results indicated clearly that trust has a major impact on motivation (Figure 3) and that motivation (Figure 4) is a major contributor to performance. This high rating for motivation becomes more significant when combined with the findings on the importance of trust to motivation in the workplace. So, if trust is associated with motivation, and motivation is associated with performance then we can infer that trust is associated with performance.

In summary, these findings serve to accentuate the importance of trust and motivation to performance. Also, the researchers contend that, combining these findings with

Mayer et al's (1995) components of trust (ability, benevolence and integrity,) crystallises further the importance of trust to performance.

Limitations of the Research

Despite the strong positive correlations for the trust and commitment study, it is not possible to infer causation. Also, as the trust and commitment survey was carried in an Irish manufacturing plant, the empirical findings are not transferable to another context. In addition, the performance study survey was based on a small-scale study of only 40 organisations in the manufacturing sector. Even with these limitations, the researchers posit that the data provides useful information for management decision-making.

Conclusions

We conclude from the literature review that trust, ubiquitous by nature, is a key factor for motivation and performance in organisations. Surprisingly, however, a scant amount of empirical data on trust, its components and the link to motivation and performance is available. Mayer et al's (1995) comprehensive literature review informs us that it can be characterised through the factors of integrity, benevolence and ability.

The results from the empirical studies indicate clearly that trust impacts strongly on commitment and that motivation makes a strong association with performance in the workplace. The collective view from the Human Resource manager survey is that the motivation dimension is the number one component of the performance model. Moreover, the results demonstrate clearly that Mayer's et al's (1995) trust components of ability, benevolence and integrity are all significant factors for motivation enhancement. Based on these results, we conclude that trust in organisations needs to be viewed as a key performance construct that requires comprehensive measurement and management. Senior managers can now know that a relationship management initiative through trust development can be the platform or launching pad for improved and sustained performance that will bring an organisation closer to the "holy grail" of performance optimisation.

Areas for further research

Our areas of further research are centered on the limitations that we have identified. First, the trust and commitment survey was based on a study in one manufacturing plant. The researchers contend that replication of this study in the services sector would prove beneficial and it could show up differences and similarities between manufacturing and services. Second, the performance survey was based on a small-scale survey of 40 organisations. Therefore, we recommend that the scope is broadened to include a larger sample as part of this proposed large scale study. In addition, for this performance study, we believe that it would be interesting to conduct the study in various countries and sectors. Our performance study was conducted on organisations in Ireland. So, for example, one avenue for future research could look how does this study compare with organisations in the UK. Finally, we recommend administering both surveys in conjunction with focused interviews. This approach we believe would yield a deeper level of knowledge and understanding

Implications

Theoretical Implications

The empirical evidence on the value of relationships in organisations is embryonic and descriptive by nature. This paper has provided better evidence. Our study makes a positive contribution to existing literature by supporting both academic and practitioner views on the importance of trust to motivation and performance. As a general conclusion we can say that all aspects of the relational construct trust tested in this paper have a significant impact on performance. The literature review indicates strong theoretical links between trust, motivation and performance. Essentially, internal relationship management can foster an achievement climate. The literature review supports the axiom that efforts should be made to change the basis for relationships from manipulation to motivation. Our findings provide support for the theory underlying our models.

Managerial Implications

This paper provides a comprehensive answer, relevant to the general manager to Chung's call for "motivational factors that lead to a high level of motivation and performance" (1968, p. 63). The literature review indicates clearly that Mayer et al's (1995) trust components of ability, benevolence and trust encapsulate many of the different typologies of trust. The empirical study carried out on 111 multinationals shows that trust (Figure 3) is a major contributor to organisational motivation. This empirical study also revealed that motivation (Figure 4) is the number one factor in the performance model. These two empirical study findings allow the researchers to infer that trust has a strong association with motivation and performance. Based on the two empirical research findings the researchers posit that voice of the employee metrics through the lenses of trust and commitment could play a key role part in any organisational scorecard (Kaplan et al, 1992).

This paper has important ramifications for senior managers of all organisations. The research indicates that enhancing organisational trust levels will increase motivation and performance in organisations. In order for this to occur, a top down shared understanding of the importance of trust is required. For some companies, this will involve transcending the boundaries of conventional management thinking. Organisations can benefit from measuring the trust levels at various stages in the value chain, analysing the findings and using the analysis as a basis for improvement. Hurley makes a call to managers "to develop a better understanding of trust and of how to manage it" (2006, p. 2). The trust commitment study described in this paper answers Hurley's call.

In addition to a shared understanding of the importance of organisational trust, organisations need an appreciation of the links between trust, motivation and performance. This appreciation will help in making decisions on modifications to motivational programmes, recruitment and selection programmes, individual and team development programmes and reward and recognition programmes. Trust development initiatives can act as a key enabler for organisation performance optimisation.

In summary, it is clear from the literature review and the empirical studies that organisations can benefit by putting strategies and programmes in place that allow individuals and groups to form, maintain and develop cohesive partnerships for the mutual benefit of all stakeholders.

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Chapter Five: Second Article

5.1 Introduction

First the chapter outlines the methodology that was adopted for this article. Second, the chapter concludes by presenting the article.

5.2 Methodology

The aim of this article is to provide new insights in understanding the value of integrating the Balanced Scorecard with Six Sigma and other improvement methodologies. The article is based on a comprehensive literature review of the Balanced Scorecard and Six Sigma. The literature review provides the basis for a new integration framework that is grounded on the Plan-Do-Check-Act cycle. The literature review for both Six Sigma and the Balanced Scorecard crystallises how a fusion can add further value in comparison to a standalone implementation of either the Balanced Scorecards or Six Sigma. This new integration framework is identified through firstly, leveraging the strengths of both the Balanced Scorecard and Six Sigma and secondly, by incorporating the key themes of the literature review. Little research has been carried out on the integration of the Balanced Scorecard with Six Sigma. This article takes a novel approach for the integration framework by identifying the integration leverage points through the strengths and weaknesses of both the Balanced Scorecard and Six Sigma.

5.3 Article Two

Second Article: Integrating the Balanced Scorecard with Six Sigma.

Journal	TQM Journal
Author	Heavey, C. and Murphy, E.
Year	2012
Volume	Volume 24 (2)

Title: Integrating the Balanced Scorecard with Six Sigma

Abstract

Purpose – The aim of this paper is to provide new insights in understanding the value of integrating the Balanced Scorecard with Six Sigma.

Design/methodology/approach

The paper is based on a comprehensive literature review of the Balanced Scorecard and Six Sigma. The literature review provides the basis for a new integration framework that is grounded on the Plan-Do-Check-Act cycle.

Findings –The literature review for both Six Sigma and the Balanced Scorecard crystallises how a fusion can add further value in comparison to a standalone implementation of either the Balanced Scorecards or Six Sigma. This new integration framework is identified through firstly, leveraging the strengths of both the Balanced Scorecard and Six Sigma and secondly, by incorporating the key themes of the literature review.

Practical implications – This paper provides practitioners with a greater understanding of the value of integrating Six Sigma with the Balanced Scorecard (BSC). Also, the study provides a framework that can serve as a basis for the integration of Six Sigma with the Balanced Scorecard.

Originality/value – Little research has been carried out on the integration of the Balanced Scorecard with Six Sigma. This paper takes a novel approach for the integration framework by identifying the integration leverage points through the strengths and weaknesses of both the Balanced Scorecard and Six Sigma. The key contribution of this paper is that it provides new insights in understanding how the Balanced Scorecard can be integrated with Six Sigma. In addition, the paper provides direction for future research that will address weaknesses in the way organisations execute integration of the Balanced Scorecard with Six Sigma today.

Keywords - Six Sigma, Balanced Scorecard, Integration. Plan-Do-Check-Act

Paper type: Literature Review

1. Introduction and Rationale for the Study

Today, organisations operate in a more challenging global environment. The business environment is becoming more turbulent with organisations across the globe facing greater challenges such as increased competition, more demanding customers, and the harsh consequences of a global recession. Improving organisational performance is more important now than it has ever been before. Six Sigma is one of the organisational approaches to process improvement and operational excellence that has been in existence since the 1980s. Similarly, the Balanced Scorecard (BSC) has given organisations the framework to transform their organisational strategy into organisational “forward looking” performance metrics that will help an organisation compete. Despite the plethora of studies on Six Sigma and the Balanced Scorecard, the integration of Six Sigma with the Balanced Scorecard is an under researched topic to-date. A scan of the Inderscience and Emerald databases from 1992 to 2009 revealed that there are no research papers currently available on the integration of Six Sigma with the Balanced Scorecard. The journals covered in this review also included the journals that are documented in Aboelmaged’s (2009) comprehensive and structured review of Six Sigma papers. This lack of research does not reflect the reality of organisational life today. For example, Motorola’s Digital Six Sigma, introduced in 2003 to Motorola, is anchored by scorecards and accelerated or executed through training, project work and project review (Huesing, 2008). Also, in relation to the complex challenges confronting the healthcare industry, it is argued that the “best way to reach and sustain a new level of organisational excellence” may “involve combining Six Sigma with the Balanced Scorecard” (Schultz, 2010). Schultz (2010) further adds that “a powerful management tool can be crafted through the unification of these two proven strategies”.

Motorola’s Digital Six Sigma (Huesing, 2008) provides credence to a number of authors’ views on the integration of Six Sigma with organisational strategy. These authors (Antony et al, 2005; Antony et al, 2006; Coronado and Antony, 2002; McAdam and Lafferty, 2004; Snee, 2010) have highlighted the importance of linking Six Sigma to the overall organisational strategy.

Also, Neely et al (2004) makes reference to a Balanced Scorecard integration:

“Is it that the organisation did not supplement the Balanced Scorecard with an appropriate improvement methodology and/or programme?”

(p. 768)

Therefore, the overall aim of this paper is to deepen the understanding of the value of the integration of the Balanced Scorecard with Six Sigma to organisational performance improvement. Drawing from a large body of knowledge on Six Sigma and the Balanced Scorecard, this study answers the following questions:

1. What are the strengths and weaknesses of the Balanced Scorecard and Six Sigma?
2. How can the Balanced Scorecard and Six Sigma strengths and weaknesses be leveraged for the development of a framework that brings the Six Sigma and the Balanced Scorecard together?
3. What are the key components of this Balanced Scorecard- Six Sigma framework?

The paper is structured in three sections: The first part provides a brief overview of Six Sigma and the Balanced Scorecard from an origin, benefits and adoption rate perspective. The second part describes and evaluates the strengths and weaknesses of both the Balanced Scorecard and Six Sigma inside the context of a combined integration. The third part provides a new framework that is based on the evaluation in part two and discusses the implications.

2. Overview of Six Sigma

Six Sigma is an organisational approach to operational excellence that has been in existence since its inception at Motorola in the 1980s. It has received considerable attention in the literature from a multitude of authors and practitioners (e.g Aboelmaged, 2009; Antony, 2004; Breyfogle, 2003; George, 2003; Harry and Schroder, 2000; Henderson and Evans, 2000, Hoerl, 2004; Pande et al, 2000; Pepper and Spedding, 2010; Schroeder et al, 2008; Snee, 2010; Watson, 2004; Wiklund and Wiklund, 2002).

Motorola first introduced Six Sigma as a “transformational quality and business improvement initiative methodology” (Motorola, 2011). In 1986, the concept of Six Sigma (Barney, 2002, p. 15) was introduced by Bill Smith at Motorola. Bill Smith was

strongly supported by Bob Galvin, the then CEO at Motorola, who “urged Bill to go forth and do whatever was needed to make Six Sigma the number one component in Motorola’s culture” (Breyfogle, 2003, p. 5). When asked, “What do believe that you did best in leading this initiative within Motorola? Bob Galvin replied. “I listened. Our people knew that they could say anything in front of me. I believe that we have created an atmosphere where people could speak up and influence the company” (Godfrey, 2002, p. 46). This culture of openness solidified the partnership between Bob Galvin and Bill Smith, and was instrumental in sowing the seeds for the inception and growth of the Six Sigma methodology throughout Motorola. The researchers contend that this support structure, exemplified by the robust partnership between Robert Galvin and Bill Smith, is a central plank for Six Sigma success at any organisation (e.g American Express, Boeing, Caterpillar, Fidelity Investments, Honeywell International, J.P. Morgan Chase, Johnson and Johnson, Kodak, Lockheed Martin, Maytag, Northrop Grumman, Sony, GE, and Texas Instruments (Nakhai and Neves, 2009).

Numerous authors have extolled the virtues of Six Sigma (Breyfogle, 2003; Gillett et al, 2010; Harry; 1998; Montgomery, 2001; Pande et al, 2000; Snee, 2010). Harry (1998, p. 60) contends that Six Sigma provides companies with a series of interventions and statistical tools that can lead to breakthrough profitability and quantum gains in quality. Snee (2010) goes further by arguing that it works better than other improvement methodology because it integrates “the human and process aspects of process improvements” (p. 11). Jack Welch described Six Sigma “as the most important initiative GE has ever undertaken” (Harry, 1998, p. 64). Jack Welsh’s (Coronado and Antony, 2002) zealous commitment is a key factor in the savings that GE reported in the 1999 annual report:

“ the six sigma initiative is in its fifth year – its fifth trip through the operating system. From a standing start in 1996, with no financial benefits to the company, it has flourished to the point where it produced more than \$2 billion in benefits in 1999, with much more to come this decade”.

(p. 92)

Motorola report a similar success story. Between 1987 and 1997 achievements at Motorola have yielded cumulative savings of \$14 billion from Six Sigma efforts (Pande

et al, 2000, p. 7). Similarly, Antony and Banuelas (2000) report that Allied Signal reduced manufacturing costs by more than \$1 billion between 1992 and 1996. Hammer's (2002) figures on adoption are also worth noting:

“At least 25% of the Fortune 200 claim to have serious Six Sigma program, including Ford Motor Company, Bank of America, Eastman Kodak Company, Dupont and American Express Company”.

(p. 30)

In summary, showcase organisations like GE, Motorola and Allied Signal illustrate the large savings that Six Sigma is capable of bringing to organisations. Six Sigma brings savings to organisations because it is based on a structured data driven problem solving methodology that is uniquely driven by a close understanding of customer needs (Pande et al, 2000, p. xi), and is supported by a critical mass of improvement specialists and organisational managers at all levels in the organisation right up to executive level.

3. Overview of the Balanced Scorecard

The essence of the Balanced Scorecard is captured succinctly by Metri (2007). “If you can't measure it, you can't manage it and thus you can't improve upon” (Metri, 2007, p. 60).

The seeds of the Balanced Scorecard were sown on the premise that “an exclusive reliance on financial measures in a management system is insufficient” (Kaplan and Norton, 2001, p. 87). In 1992, a year long study of 12 companies culminated in the introduction of the Balanced Scorecard (Kaplan and Norton, 1992). Kaplan and Norton's (1992) Balanced Scorecard revolutionised the conventional thinking on performance metrics. By going beyond measures of financial performance, organisations had a better view on what needs to be achieved and how the company is performing against these metrics. Overall, the Balanced Scorecard “provides a balanced picture of current operating performance as well as the drivers for future performance” (Kaplan and Norton, 1996a, p. 53).

Many organisations use the Balanced Scorecard as the cornerstone for the strategic management system. The Balanced Scorecard has been adopted in many countries: (Spain; Urrutia and Eriksen, 2005), (Sweden; Dabhilkar and Bengtsson, (2004), (India;

Aravamudhan and Kamalanabhan, (2007), (Greece; Anagnostopoulos and Elmasides, 2010), and also across a range of industries including health care (Noorein and Kaplan; 2002), education (2009; Beard), chemicals (Kaplan; 1993), electronics (Gumbus and Lyons; 2002) and metal powder manufacture (Pineno and Cristini; 2003). There are contrasting statistics on the adoption rate and success rate. On the one hand, Pineno and Cristini (2003) cite a report by Bain & Co indicating “approximately 50% of Fortune 1,000 companies in North America and about 40% in Europe use a version of the BSC” (p. 28). Similarly, Silk (1998) reports that 60 percent of Fortune 1000 companies has either implemented or are in the process of implementing the Balanced Scorecard. On the other hand, Neely et al (2004) reports that commentators suggest that only between 30- 60 per cent of large USA firms have adopted the Balanced Scorecard. These adoption statistics, although demonstrating a high level of variation, accentuate the importance of the Balanced Scorecard to the business world. On the same theme, the Balanced Scorecard is deemed to be the most dominant framework for performance management (Marr and Schiuma, 2003; Neely et al, 2004; Smith, 2005).

From a Balanced Scorecard benefit perspective, many authors argue that there is a paucity of empirical evidence (e.g Bourne et al, 2002; Neely et al, 2004; Nørreklit, 2000). However, one statistic is worth noting. Lewy (McCunn, 1998, p. 34) claims that 70% of Balanced Scorecard implementations have failed. In an attempt to uncover the failure reasons, Lewy (McCunn, 1998) together with Lex Du Mee of KPMG management consulting, found through case studies on seven European companies, that only those companies who had followed the majority of the “ten commandments of balanced scorecard implementation” could claim to have successfully rooted scorecards “in their reporting and control processes” (McCunn, 1998, p. 34). McCunn (1998, p. 34) adds to the work of Lewy by putting forward an eleventh commandment for consideration:

“Do not start implementing the scorecard until you know what you hope to achieve”.

Similar to the Ten Commandments, (Olve et al, 1999) introduces steps that will “encourage support for the BSC improvement” (Amaratunga et al, 2001, p. 186). These implementation guidelines also serve to highlight the importance of having a robust change management process inside the organisation before embarking on any initiatives

such as Balanced Scorecard implementation, Business Process Re-engineering, Lean, or Agile. If it is a case that the organisation is being constantly challenged by change management, then the organisation may need to assess first where it is positioned on the organisational growth ladder using for example, Greiner's Model (Rowe and White, 2009). The Griener Model is a useful way of thinking about the crises that organisations experience as they grow (Greiner, 2013).

To conclude, adoption of the Balanced Scorecard using a robust change management process, promotes a strategic focus throughout the organisation, drives forward-looking behaviours and in turn, promotes higher levels of commitment and performance.

4. Strengths and Weaknesses of the Balanced Scorecard and Six Sigma

Numerous authors provide insight into the weaknesses (See Table 1) of the Balanced Scorecard framework (e.g De Waal, 2003; Epstein and Manzoni, 1998; Neely et al, 2004; Neely at al, 2005; Norreklit, 2000; Othman, 2008; Schneiderman, 1999) and the Six Sigma methodology (e.g Coronado and Antony, 2002; Antony, 2004; Douglas et al, 2009, Goh et al, 2006; Hendricks and Kelbaugh, 1998; Jerome, 1999; Pepper and Spedding, 2010).

Table 1: Balanced Scorecard Strengths and Weaknesses

Strengths	Weaknesses
The term “balanced scorecard” reflected the balance between short- and long-term objectives, financial and non-financial measures, lagging and leading indicators and external and internal performance perspectives (Hepworth, 1998, p. 560).	Developing and maintaining a Balanced Scorecard can create a workload for many people. In particular, some of the data required may not currently exist within the firm and thus needs to be collected specifically for the Scorecard. (Epstein and Manzoni, 1998, p. 198).
The added value of the Balanced Scorecard (BSC) is in the drawing together of all the key business areas and identifying and exploiting the linkages that deliver success (Hepworth, 1998, p. 560).	The first problem that many firms encounter is the realization that the top management team cannot articulate a clear and shared view of the firm’s strategy; in some cases, the strategy is not clear, in other cases members of the top management team hold different views on what the strategy of the firm is or ought to be (Epstein and Manzoni, 1998, p. 198).
The Balanced Scorecard helps an organisation “maintain a holistic perspective by providing a concise display of performance metrics” (Pyzdek, 2004, p. 22).	It does not include a competitor perspective (Neely et al, 2005, p. 1244).
It enables companies to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the intangible assets they would need for future growth (Kaplan and Norton, 2007, p. 150).	The Balanced scorecard does not provide a solution for “How to measure?” David Norton writes: “We are experts in what to measure, not in how to measure.” (De Waal, 2003, p. 33).
The scorecard puts strategy and vision, not control, at the center (Kaplan and Norton, 1992, p. 79).	“It can point out problems, but it does not reveal the solution”(Self, 2004, p. 104).
“It has made us figure what areas are important, and what constitutes success in those areas”(Self, 2004, p. 104).	The balanced scorecard is “seen as myopic and ignores the activities and initiatives that goes beyond the original targets”(Othman, 2008, p. 261).
The Balanced Scorecard (BSC) translates an organisation’s mission and strategy into a set of performance measures that provides the framework for a strategic measurement and management (Kaplan and Norton, 1996, p. 2).	Nørreklit (2000) concludes from the analysis that “causality claimed to hold between perspectives is problematic” (p. 76).
The Balanced Scorecard (BSC) provides a model that translates an organisation’s vision and strategy into specific strategic objectives, monitored through a coherent set of performance indicators. (Solano et al, 2003, p. 68).	To be successful, the Balanced Scorecard must be viewed as the tip of the improvement iceberg (Schneiderman, 1999, p. 6).
“It is distinct from other strategic measurement systems in that it contains outcome measures and the performance drivers of outcomes, linked together in cause-and-effect relationships” (Norreklit, 2000, p. 67).	There is no deployment system that breaks high level goals down to the sub-process level, where actual improvements activities reside (Schneiderman, 1999, p. 7).
Scorecard balance is important because if you don’t have balance you could be giving one metric more focus than another which can lead to problems (Breyfogle, 2008, p22).	The balanced scorecard can be criticised for not “taking a broad enough view of the stakeholders who interact with an organisation” (Neely et al, 2001, p. 12).
“The scorecard has encouraged innovation”(Self, 2004, p. 104).	

According to Othman (2008), for example, the Balanced Scorecard (See Table 1) is myopic and “ignores the activities and initiatives that goes beyond the original targets” (p. 261). Similarly, Self (2004) contends that the Balanced Scorecard can highlight problems, but it does not provide the solution. Also, in an interview with De Waal (2003), David Norton alludes to this limitation:

“We are experts in what to measure, not in how to measure” (De Waal, 2003, p. 33).

Schneiderman (1999) articulates the problem succinctly:

“There is no deployment system that breaks high level goals down to the sub-process level, where actual improvements activities reside” (p. 7). The point raised by the authors, (De Waal, 2003; Othman, 2008; Schneiderman, 1999) on this inability to provide a solution path, is a key theme on the Balanced Scorecard limitations (See Table 1). The question arises: What can be done to address this limitation?

The strengths and weaknesses of the Six Sigma methodology outlined in Table 2 provide insight into the answer.

Table 2: Strengths and Weaknesses of Six Sigma

Strengths	Weaknesses
Six Sigma continues today as the best approach to process improvement (Snee and Hoerl , 2003).	Fewer than 10% of the companies are doing it to the point where it is going to significantly affect the balance sheet and the share price in any meaningful period in time. (Coronado and Antony, 2002, p. 92).
No approach integrates the human and process elements as well as Six Sigma (Snee, 2004, p. 9).	Douglas et al's paper (2009) provides evidence that Six Sigma is a reductionist approach. Douglas et al (2009) contend that a reductionist approach "works well for simple, well defined 'hard' problems but fails to perform well on complex, ill defined 'soft' problems and when the parts of a more complex problem are independantly optimised" (p. 144).
Six Sigma is uniquely driven by close understanding of customer needs, disciplined use of facts, data, and statistical analysis, and diligent attention to managing, improving, and reinventing business processes (Pande et al, 2000, p. xi).	"A large amount of investment is required to train employees to be green belts, black belts, master black belts and so on" (Goh et al, 2006, p. 238).
The strength of Six Sigma lies largely from the customer focus coupled with measureable improvements in the Critical to Quality (CTQ). (Goh et al, 2006, p. 236).	"I personally have experienced that senior management in many organisations view Six Sigma as another quality improvement initiative or flavour of the month (Antony, 2004, p. 303).
The effectiveness of Six Sigma is rooted in its judicious application of statistical techniques for information gathering, analysis and interpretation (Goh and Xie, 2004, p. 236).	"The prioritization of projects in many organisations is still based on pure subjective judgement. Very few powerful tools are available for prioritising projects and this should be a major thrust for research in the future" (Antony, 2004, p. 304).
In a typical Six Sigma programme, the aim is to build what the customers want as reflected by what is known as Critical to Quality, or CTQ.(Goh et al, 2006, p. 236).	The shift of 1.5 Sigma especially for services has not been validated (Goh et al, 2006).
Six Sigma has a strategic role to play in organisations (Goh and Xie, 2004; Antony and Banuelas, 2000, Pande et al, 2000).	There are no uniformly accepted standards for certification of Six Sigma personnel (Goh et al, 2006).
Six Sigma is usually carried out on a project-by project basis. With a project based approach a Six Sigma programme can be better defined and managed.(Goh et al, 2006, p. 236).	Frustration can occur due to expensive data driven solutions and this may result in only a small portion of the solution being implemented (Antony, 2004).
"Six Sigma is seen as having a significant impact on operational efficiency" (McAdam et al, 2005, p. 168).	Difficulties can arise in linking six sigma to business strategy.

Six Sigma is a business problem solving methodology that provides the capability to effect measurable process improvements (Montgomery, 2001; Goh and Xie, 2004; McAdam et al, 2005; Snee and Hoerl, 2003). The capability for effective business process improvement is provided through the "structured methodology that is uniquely driven by a close understanding of customer needs, disciplined use of facts, data and statistical analysis, and diligent attention to managing, improving and reinventing business processes" (Pande et al, 2000). The real power of Six Sigma lies in the closed loop problem solving methodology that it brings to the business which will help to keep an organisation on the "often twisted path to performance and success" (Pande et al, 2000, p. 200). In specific terms, Six Sigma provides the business with a structured tool for defining a business problem through the voice of the customer, measuring the performance baseline, and prioritising the root causes for solution implementation and

control. All of this structured problem solving serves to improve the Six Sigma metrics or Critical to Quality (CTQ) metrics. So, improvements in these Six Sigma metrics can collectively influence the higher order performance metrics of the Balanced Scorecard. For example, if a particular customer requires a two day reduction in lead time for 100% customer satisfaction, then the organisation can introduce a Six Sigma programme that will directly influence the customer satisfaction perspective of the Balanced Scorecard. So, melding the Six Sigma with the Balanced Scorecard will address the “inability to provide a solution path” weakness of the Balanced Scorecard and provide a problem solving capability for the high-level performance metrics in the Balanced Scorecard.

Also, this fusion can counteract the Six Sigma weakness that Antony et al (2006) describes. Antony et al (2006) reports “that senior management in many organisations view Six Sigma as another quality improvement initiative or flavour of the month in their list” (p. xxi). This can result in Six Sigma being operated as a standalone improvement initiative without any link to the organisational strategy. This disconnect may help to explain David Fitzgerald reporting “ that fewer than 10% of the companies are doing it to the point where it is going to significantly affect the balance sheet and the share price in any meaningful period in time” (Coronado and Antony, 2002, p. 92). On the same theme, Coronado and Antony (2002, p. 95) further adds that Six Sigma cannot be treated as another standalone strategy and that linking Six Sigma to the business strategy is one of the critical success factors for successful deployment of Six Sigma. Coronado and Antony’s (2002) view on the disconnect between strategy and Six Sigma is also consistent with Asif et al’s (2009) view on why Quality Management Programmes (QMP) fail. Asif et al’s (2009) concludes that there is potential for competitive advantage when Quality Management Programmes (QMP) are “effectively aligned with organisational strategy and institutionalised in an organisational setting” (Asif et al, 2009, p. 788). For this strategic disconnect (Coronado and Antony, 2002; Asif et al, 2009), the researchers contend that the panacea does not reside inside the Six Sigma methodology. Six Sigma does not provide a systematic means to translate the organisational strategy into a set of metrics for measuring, improving and controlling. For this problem, the researchers posit that deployment of the Balanced Scorecard, will provide this capability to translate the operational strategy into high-level metrics that

can be impacted by the introduction of Six Sigma initiatives. Thus, the integration of the Balanced Scorecard with Six Sigma will bring Six Sigma into the boardroom and address Antony et al's (2006) call for linking Six Sigma to business strategy.

Also, the limitation, around whether Kaplan and Norton's (1992) perspectives are sufficient for an organisation, can be eradicated by the design and adoption of a customised scorecard. So a car manufacturer for example, may add a supplier perspective to the Balanced Scorecard. For another organisation that is very much dependant on how the employees engage with their customers, an employee perspective may be added to the Balanced Scorecard.

In summary, this lack of solution capability, a central theme in the literature on the Balanced Scorecard limitations, can be overcome through leveraging the closed loop problem solving strength of the Six Sigma methodology. Also, this integration will eradicate the Six Sigma strategic disconnect that Anthony et al (2006) reports on. In addition, the Balanced Scorecard and Six Sigma compliment each other and serve to create a "burning platform" for melding the Balanced Scorecard inside the Six Sigma methodology. Finally, integrating the Balanced Scorecard with Six Sigma has the potential to bring additional value to the organisation through the strengths and weaknesses levers and allow the Balanced Scorecard and the Six Sigma methodology to realise their full potential inside the organisation.

5. Integration of Six Sigma with the Balanced Scorecard Framework

In addition to the value that can be gained through leveraging the strengths and weaknesses of the Balanced Scorecard and Six Sigma, the integration of the Balanced Scorecard with Six Sigma is closely linked to Cocks' (2010) research findings on winning organisations. Cocks' (2010) research of 1000 Australian organisations is centred around the theme that balancing strategy formulation with effective strategy execution, plays a pivotal role in becoming a winning organisation and is more important than charismatic leaders, breakthrough ideas and activity that is linked to creating the perfect organisational structure. The integration of the Balanced Scorecard with Six Sigma will allow an organisation to translate the strategy into high-level

metrics and will also provide the capability to improve the high level metrics through Six Sigma initiatives.

The literature review clearly outlines the benefits of both Six Sigma and the Balanced Scorecard to organisations. In parallel, the strengths and weaknesses literature for both Six Sigma and the Balanced Scorecard crystallise how a fusion can add further value in comparison to a standalone implementation of either the Balanced Scorecards or Six Sigma. Also, Ahn (2005) makes reference to Kaplan and Norton's (1996b, p. 10) recommendation with respect to the incorporation of the mission and strategy into the Balanced Scorecard. Together, Cocks' research (2010) and the literature review on the Balanced Scorecard and Six Sigma provide a compelling reason for melding the Balanced Scorecard with Six Sigma. The Balanced Scorecard will provide the capability to translate the strategy into relevant organisational metrics and Six Sigma will provide the vehicle for influencing the metrics.

In addition, for a particular case of a Balanced Scorecard failure, Neely et al (2004) poses a key question:

“Is it that the organisation did not supplement the Balanced Scorecard with an appropriate improvement methodology and/or programme?”

(p. 768)

Fedotowsky (2010) addresses Neely et al's (2004) concern partially by accentuating the importance of linking the Balanced Scorecard to Six Sigma using a series of cascading metrics. However, the article does not take into account the importance of linking the metric to an appropriate improvement methodology (Neely et al, 2004, p. 768). All of these points form the basis for the framework that is shown in Figure 1.

The framework depicted in Figure 1 is based on the four stage PDCA cycle (Plan-Do-Check-Action),”a flow chart for learning and process improvement” (Pyzdek, 2001, p. 8), that was made popular by Deming. Similar to the PDCA, the fundamental principle of the framework in Figure 1 is iteration (Pyzdek, 2001). For example, once the organisational metric targets have been met a second improvement cycle can begin and the rate of improvement can be tracked for each cycle as outlined by Schneidermans' half life articles (Schneiderman, 1986, 1988). Alternatively, if the organisational metric

targets have not been achieved an action plan is put in place to close the gap between the metric targets and the actual results.

Also, the framework in Figure 1 allows the organisation to customise the perspectives and then based on these perspectives, to define a Six Sigma portfolio and a Non Six Sigma portfolio that will influence the high level metrics in the Balanced Scorecard. For example, the total organisational portfolio may consist of Define-Measure-Analyse-Improve-Control (DMAIC) and Design for Six Sigma (DFSS) initiatives coupled with other initiatives such as Project Management initiatives. Thus, this has the overall effect of aligning the various elements of the strategy to a correct methodology for effective and efficient execution. In this way, resources are correctly aligned with no inefficient allocation of resources taking place. For each organisational metric, the organisation will need to carry out a deep dive to the various sub process levels in the organisation and then decide on the mix of projects that will be executed as part of the organisational project portfolio (PMI, 2004, p. 16). Finally, in light of this discussion, the researchers argue that this integration framework in Figure 1 is a flexible, robust, and efficient framework that is applicable to all organisations involved in performance improvement and has the potential to bring considerable strategic benefits to any organisation.

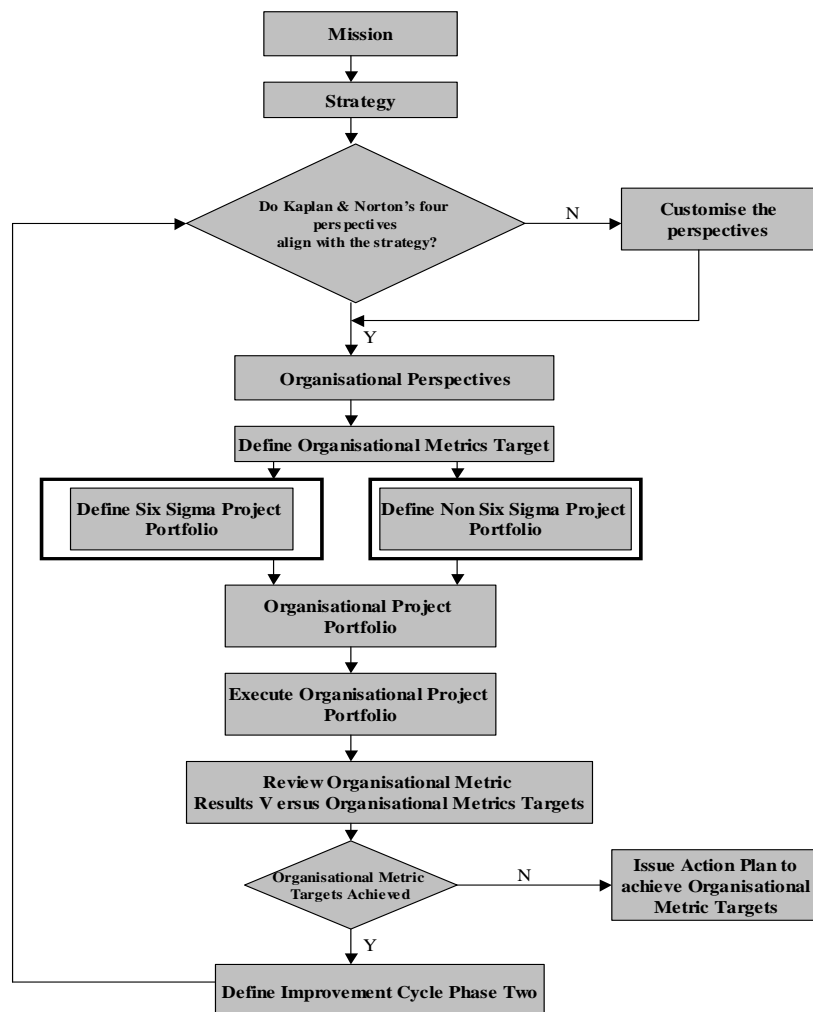


Fig 1: Framework for Balanced Scorecard-Six Sigma Integration

6. Future Research

Given all the merits of the integration between the Balanced Scorecard and Six Sigma, the researchers acknowledge that integration challenges exist today for organisations. One key weakness for the integration of the Balanced Scorecard with Six Sigma is the difficulty in identifying Six Sigma project portfolios year-on-year that will impact the Balanced Scorecard and allow continuous improvement to be sustained inside the organisation. So, similar to Antony's (2004) view on project identification, the researchers contend that this is an opportunity for future research. For example, for

process improvement we have the DMAIC methodology. It may be possible also to develop a similar methodology for project identification. In addition, another challenge today is centred on how organisations make explicit connections between Six Sigma projects at lower levels in the organisation and the high level Balanced Scorecard metrics. The researchers pose the question: Can we devise a methodology that will allow organisations to assess the impact of Six Sigma projects at various elevations in the organisation on the high level Balanced Scorecards? The researchers contend that this is another area for future research.

7. Conclusions

The key contribution of this paper is that it provides new insights in understanding the value of integrating the Balanced Scorecard with Six Sigma and secondly, the paper proposes a new framework that brings the Balanced Scorecard and Six Sigma together. The article demonstrates that the Balanced Scorecard is an effective tool for translating strategy into high-level performance measures. Adding Six Sigma to this framework will give organisations the capability to influence and control these “element of discovery” metrics in a systematic and structured manner. The strengths and weaknesses literature for both Six Sigma and the Balanced Scorecard crystallise how a fusion can add further value in comparison to a standalone implementation of either the Balanced Scorecards or Six Sigma.

Faced with an increasingly complex and turbulent business environment, organisations need a robust link between strategy and effective strategy execution. The researchers contend that the integration of Balanced Scorecard with Six Sigma is central to this need and will drive efficiencies and innovation into the business, which in turn act as a platform for sustained competitive advantage. Six Sigma is not the panacea for all organisation’s ills. However, an effective integration of Six Sigma with the Balanced Scorecard will provide a robust bond between organisational strategy and strategy execution and allow an organisation to realise the full potential of both the Balanced Scorecard and Six Sigma.

In summary, properly designed and deployed using a robust change management process, the Balanced Scorecard in combination with Six Sigma, will articulate and

execute the strategy of the business, and will act as a platform for excellence and improvement.

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Chapter Six: Third Article

6.1 Introduction

First the chapter outlines the connection of this paper to the overall study. Second, the chapter presents the methodology that was adopted for this article. Finally, the chapter concludes by presenting the article.

6.2 Methodology

The aim of this article is to provide new insights into co-operation for organisations and their leaders. The article is based on a literature review of co-operation, risk and trust. The emergent themes from the literature review form the basis for a proposed co-operation framework. The power of co-operation for organisational leaders lies in its ability to enhance group effectiveness and increase performance. The emergent elements of trust and risk provide a basis for the proposed co-operation framework. The framework has utility for organisations and their leadership and informs us that trust has the potential to reduce risk and increase co-operation. This research provides practitioners and business leaders with a greater understanding of how co-operation, risk and trust are interconnected. Also, the researcher contends that the framework has the potential to enhance co-operation and co-leadership in organisations.

6.3 Article Three

Third Article: A proposed co-operation framework for organisations and their leaders

Journal	Management Decision
Author	Heavey, C. and Murphy, E.
Year	2012
Volume	Volume 50 (6)

Title: A proposed co-operation framework for organisations and their leaders

Purpose

The aim of this paper is to provide new insights into co-operation for organisations.

Design/methodology/approach

The paper is based on a literature review of co-operation, risk and trust. The emergent themes from the literature review form the basis for a proposed co-operation framework.

Findings

The power of co-operation for organisational leaders lies in its ability to enhance group effectiveness and increase performance. The emergent elements of trust and risk provide a basis for the proposed co-operation framework. The proposed co-operation framework has utility for organisations and their leadership and informs us that trust has the potential to reduce risk and increase co-operation.

Practical implications

This research provides practitioners and business leaders with a greater understanding of how co-operation, risk and trust are interconnected. Also, the researchers contend that the co-operation framework proposed in this paper has the potential to enhance co-operation in organisations.

Originality/value

This article proposes a new framework that shows how co-operation is connected to risk and trust. The proposed framework has utility in organisations by providing a deeper understanding of the value of trust to organisations and their leaders.

Key Words: Co-operation, risk, trust.

Paper Type: Literature review.

1. Introduction

Today, organisations are operating in a more challenging marketplace. Organisations across the globe face greater challenges such as increased competitions, higher energy costs, more demanding customers and the harsh consequences of a global recession. Getting the most out of people and teams - a continuous challenge for organisational leadership - is more important now than ever before. Working together in teams involves interdependence, which naturally requires co-operation. Regarding the theme of co-operation, numerous authors emphasise its importance in business (e.g. Chen et al, 1998; Deutch, 1949; Fink and Kessler, 2010; Tanghe et al, 2010). For instance, Tanghe et al (2010) contend that co-operation enhances group effectiveness. Fink and Kessler (2010) go further and contend that the ability to maintain successful co-operation “is a critical resource in its own right” (p. 469). In addition, their large-scale survey (Fink and Kessler, 2010) conducted in three European countries reveals that co-operative relationships contribute to organisational performance. However, a challenge can exist for an organisation to attain a high level of co-operation, despite its relevance to business. Pittinsky and Simon (2007) allude to this challenge for leadership: “How can a business leader encourage divisions to work together efficiently and productively?” (p. 586). Chen et al (1998) summarise the impact of co-operation on business by arguing that scholars have long recognised that co-operation is crucial to business success. However, despite this assertion, co-operation is often taken for granted and, in addition, co-operation is not always given the attention that it merits. For example, how many organisations pose the question: How can we optimise co-operation inside our organisation?

In light of this discussion, we note that co-operation has an important role to play in organisations, has the potential to create conditions for superior performance, and as a consequence, is an appropriate topic for research. Therefore, we sought answers to the following questions:

- (1) In order to provide utility for organisations, how can we conceptualise co-operation?
- (2) How can an organisation and their leaders increase co-operation?

This paper is organised into three parts. The first part reviews the literature on co-operation, risk and trust. The second part evaluates the literature and connects the key

themes. The third part proposes a co-operation framework, provides answers to the two questions itemised above and discusses the implications of the proposed framework.

2. Co-operation

Co-operation is something that is taken for granted by some organisations. However, Mead's (1937) view that co-operation is focused on "the act of working together to one end" (p. 8) provides an insight into why unco-operative behaviour can exist in organisations. For example, a situation may exist whereby two business units inside the same organisation compete for the same resource to facilitate the execution of two different goals. Also, although co-operation is a widely researched topic, Chen et al (1998) contend that there is little conceptual integration on the meaning of co-operation. In line with Chen et al's view (1998), Mead (1937) provides two different perspectives on co-operation. First, Mead (1937) views co-operation through the "shared goal" lens with the emphasis being on working together towards a common goal. Second, Mead (1937) contrasts this common goal type co-operation to co-operation based on engaging in collective activity. In this collective activity type co-operation, no goal is required to enable co-operation to take place.

Extending Mead's (1937) work, Deutch (1949) focusing on the nature of relationships between the goals of the participants, classified situations into co-operative and competitive. In other words, a situation is co-operative when the goals are mutually shared and positively related to each other; however, a competitive situation exists between goals that are negatively related. As part of this classification validation, Deutch (1949) conducted an experiment involving four co-operative groups and four competitive groups from a sample of students at the Massachusetts Institute of Technology. The eight groups were given puzzles and human relationship problems. The puzzles tested the student's ability as a group to do clear and logical reasoning whereas the human relationship problems tested the student's ability as a group to analyse and formulate written recommendations for human relationship problem scenarios. The members in the four co-operative groups were given final grades that were partly dependent on which group submitted the best collective solution. Conversely, for the four competitive groups, final grades were partly dependent on how

much each individual contributed to the group's solution. Deutch (1949) concluded from the experiment that greater productivity occurred when group members were organised in co-operative situations as opposed to competitive situations. In an organisational setting, this could translate into two organisational leaders negotiating for the same resources for the development of two new products. Invariably, for this particular situation, the resource owner will engage in a risk assessment to determine the gain and loss probabilities for each of the two leader's new product development programmes. In other words, for this situation the decision on the level of co-operation to provide is moderated by the level of risk that is perceived by the resource owner. This is where risk and co-operation connect.

3. Risk

In business life, risk is a ubiquitous phenomenon. For instance, if the likelihood of an event occurring is less than 100% and it has the potential to have a positive or negative impact on the business, then a risk exists. Risk is an area that all leaders have to deal with inside the organisational environment. So, when an organisational leader sponsors the hiring of a new team to develop a new product or service, there is a risk that the expected levels of performance will not be achieved by the launch team for that new product or service. Also, organisational leaders can be challenged by risks associated with the achievement of strategic objectives. In the case of a restaurant owner, who is forced to hire a new head chef, there is a risk to customer satisfaction and revenue. Given these scenarios and the importance of risk to business, we will illuminate further the risk construct.

In one conceptualisation of risk, Sitkin and Pablo (1992) define risk as "a characteristic of decisions that is defined here as the extent to which there is uncertainty about whether potentially significant and/or disappointing outcomes of decisions will be realised" (p. 10). Hillson (2002) considers risk to be made up of two facets: opportunity, which measures the positive effects of risk, and threat, which measure the negative effects of risk. Conchie and Burns (2008) acknowledge Hillson's (2002) classification by contending that risk can be categorised into positive and negative risk. Positive risks have a positive impact on the business whereas negative risks have a negative impact on

the business. Taking Hillson's (2002) view a step further, the level of risk could vary between a high positive risk to a high negative risk. Jaafari (2001) takes an analytical perspective on risk and views risk as being the product of probability of occurrence of loss/gain multiplied by its respective magnitude. So, based on Jaafari's (2001) definition, risk can also be viewed through the components of risk impact and risk probability. So for a situation where an organisation is in the process of sub-contracting a new product launch, a risk impact level and a risk probability could be assigned to each potential sub-contractor. Specifically, during the interview process for the sub-contractor, the organisation or trustor may perceive a higher level of negative risk in relation to specific sub-contractor proposals. This perceived risk may be due to a lack of trust in achieving the performance standards. In other words, the lower levels of trust result in higher levels of risk. This is where risk and trust connect.

4. Trust

McAllister (1995) makes a direct connection between trust and risk by asserting that trust makes risk taking possible. Similarly, Johnson-George and Swap (1982) connect risk to trust by asserting that "willingness to take risks may be one of the few characteristics common to all trust situations" (p. 1306). Likewise, Currall and Judge (1995) posit that trust is an individual's "behavioural reliance on another person under a condition of risk" (p. 153). Also, McAllister's review (1995) of trust definitions yields a trust definition that is aligned to Hillson's (2002) view on positive and negative effects of risk. According to McAllister (1995), trust is the extent to which "a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another" (p. 25). So, in line with Hillson's view (2002) on risk, if an individual perceives a negative effect of risk, the individual may view the situation as competitive (Deutch, 1949) resulting in the individual being unwilling to act. This situation illustrates where lack of trust fosters negative risk and lack of co-operation. So the question arises, are there components of trustworthiness that will mitigate the negative risk and increase the amount of trust that one person or team is willing to place in another person or team?

Numerous components of trustworthiness based on the characteristics of the trustee, can be found in the extant literature (e.g. ability, benevolence and integrity [Mayer et al, 1995], credibility and benevolence [Doney and Cannon, 1997], honesty and benevolence [Larzelere and Huston, 1980]). Gubbins and McCurtain (2008) argue that the three factors expounded by Mayer et al (1995) (i.e. ability, benevolence and integrity) incorporate many of the different trust typologies. Also, Mayer et al's trust typology (1995) of ability (e.g. Good, 1988, Sitkin and Roth, 1993) benevolence (e.g. Larzelere and Huston, 1980; Solomon, 1960; Strickland, 1958) and integrity (e.g. Butler, 1991; Lieberman, 1981; Ring and Van de Ven, 1992) was developed from the consolidation of the views of 23 different authors. For all these reasons, we contend that Mayer et al's (1995) trust typology is appropriate for understanding trust in organisations. Also, the researchers posit that these trust components or traits (Mayer et al, 1995) have the potential to increase the willingness of the trustor to place trust in the trustee.

5. A proposed co-operation framework for organisations

The review of co-operation, risk and trust identifies three main themes. First, co-operation is moderated by the level of perceived risk. Adding further to the risk classification perspective, risk can be deemed as positive or negative risk (Conchie and Burns, 2008; Hillson, 2002). In other words if the risk is perceived to be positive, one can expect higher levels of co-operation. Conversely, if the risk is perceived to be negative, the outcome may involve lower levels of co-operation. Second, trust enables people to take risks. As articulated succinctly by Johnson-George and Swap (1982) the "willingness to take risks may be one of the few characteristics common to all trust situations" (p. 1306). Third, Mayer et al's (1995) trust components of ability, benevolence and integrity constitute an appropriate typology for the understanding and management of trust levels in organisations. So in summary, Mayer et al (1995) trust typology has the potential to reduce risk, and risk reduction has the potential to increase co-operation. Gambetta (1988) crystallises this trust-risk-co-operation process succinctly by claiming that when we say we trust someone, "we implicitly mean that the probability that he will perform an action that is beneficial or at least not detrimental is

high enough for us to consider engaging in some form of co-operation with him” (pp. 217-218). These emergent themes form the basis for the proposed framework presented in Figure 1.

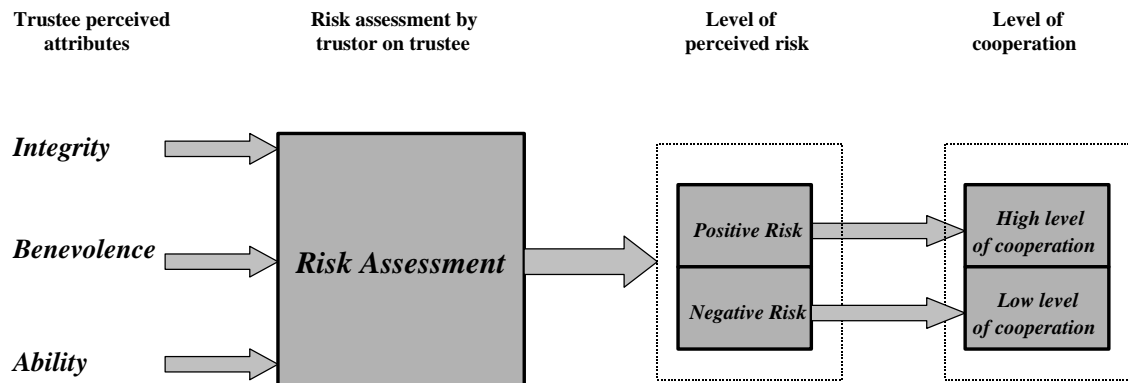


Figure 1: A framework for organisational co-operation

6. Discussion:

In relation to our introductory question on the conceptualisation of co-operation for organisational utility, we contend that the goal approach (Deutch, 1949) conceptualisation crystallises how situations can become co-operative or competitive.

In addition, we contend that there is potential to transform competitive situations into co-operation situations through the adoption of Mayer et al’s (1995) trust components. Also, in answering the question on how co-operation can be increased by organisations, we contend that the proposed framework presented in Figure 1 provides rich insights. The proposed framework, which has widespread application to organisations, informs us that Mayer et al’s (1995) trust components have the potential to reduce risk and increase co-operation. For example, where a leader of change implementation is looking to introduce a new performance management system, the perceived attributes of the management team may dictate the level of co-operation that the employees give to the change initiative. So, if there is a feeling among the workforce that the leadership team is not delivering consistent and open messages, the employees may perceive this as a negative risk resulting in lack of co-operation and a failed initiative. In simple terms, the employees may see this initiative as a threat or competitive situation as a consequence

of this lack of open communication. This communication deficiency is aligned to Mayer et al's (1995) integrity components of trust. This change initiative example reinforces Duck's (1993) views on change and trust. Duck (1993) argues that "if a company is in trouble, or if it is in the middle of a change effort, lack of trust automatically emerges as a serious barrier" (p114). Conversely, if the management team is perceived by the workforce as being proficient with a high level of integrity, the positive risks may generate higher levels of co-operation.

In another situation, where an organisational leader is given an assignment to make a decision on the selection of a business unit for the development of a new product, the organisational leader may engage in a risk assessment for each potential business unit that has submitted a new product proposal. Taking this a step further, attrition may have resulted in the loss of a key technical leadership capability in a particular business unit. This capability deficiency, which is linked to Mayer et al's (1995) ability component, could be deemed a negative risk and have a major influence on the final decision.

So overall, we contend that adopting the proposed framework in Figure 1 has the potential to change a negative risk situation into a positive one, through the utilisation of Mayer al's (1995) trust components of ability, benevolence and integrity, resulting in a win-win outcome for all involved.

7. Future Research

We acknowledge that, because of the complex nature of co-operation and trust, challenges exist in the management of these constructs. For example, the propensity to trust, an area which has not been explored in this paper, can impact the levels of trust that permeate organisations. In other words, some individuals place trust in people and organisations more easily than others do. We recognise this limitation and propose future research for this area of opportunity. In specific terms, such proposed research could look at the variations of trust levels among employees in organisations and the reasons for them.

Another important area for future research is centred around the framework in Figure 1 and Mayer et al's (1995) trust typology. The question arises: Regarding Mayer et al's (1995) typology, what impact does each of its component of (ability, benevolence and

integrity) have on risk? Empirical research addressing this and related questions would provide rich insights for management decision-making.

8. Conclusions

The power of co-operation for organisational leaders lies in its ability to enhance group effectiveness and increase performance. In relation to our initial question on how to optimise co-operation inside the workplace, we conclude that co-operation is moderated by risk, and risk in turn is reduced through trust enhancement. The framework on Figure 1 provides an understanding of how co-operation and risk are influenced through Mayer et al's (1995) trust components. Trust is central to our framework. Also, in an era where uncertainty is certain, we believe that trust becomes more important. As per the framework on Figure 1, the power of trust lies in its potential to reduce risk and increase co-operation.

Overall, organisations and their leaders can benefit from understanding co-operation, and how it can be enhanced inside the organisational setting. This in turn has the potential to provide a platform for breaking down barriers, allowing people and performance to flourish inside the organisation.

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Chapter Seven: Fourth Article

7.1 Introduction

First the chapter presents the methodology that was adopted for this article. Second, the chapter concludes by presenting the article.

7.2 Methodology

The methodology is based on a two stage interview process followed by the circulation of a company questionnaire (See Appendix D). The methodology detail is included in the article.

7.3 Article Four

Fourth Article: Introducing a new continuous improvement framework for increased organisational return on investment.

Journal	TQM Journal
Author	Heavey, C., Ledwith, A. and Murphy, E.
Volume	Forthcoming

Title: Introducing a new continuous improvement framework for increased organisational return on investment.

Purpose

The aim of this paper is to develop and validate a new framework for continuous improvement.

Design/methodology/approach

The literature review on customer value and strategic quality provides the basis for the identification of a conceptual framework for continuous improvement. This conceptual framework is validated using the in-depth interview and the survey approach.

Findings

The empirical study concluded that the new framework contains all the core components or forces of continuous improvement. These forces are customer value focused co-leadership, customer value focused strategic objectives, improvement specialists with people performance knowledge and improvement methodology. By adopting this framework, all process personnel can have a role to play in process improvement leading to increased organisational returns on investment. Overall, it is an effective framework that is easily understood and can be applied throughout any process led organisation. This is supported by the empirical data.

Practical Implications

This new framework can demonstrate to each organisational employee where they fit into the organisational continuous improvement strategy. This paper provides practitioners with a new validated continuous improvement framework that has application in all organisations that are involved in process customer value improvement. The researchers contend that this new framework can compliment existing continuous improvement frameworks.

Originality/Value

This paper develops and validates a new framework for continuous improvement. By adopting this framework, all process personnel can have a role to play in process improvement leading to increased organisational returns on investment. This is supported by the empirical data.

Paper type: Research paper

1. Introduction and Rationale for the study

Many excellence frameworks and improvement methodologies have guided organisations to performance improvement since the late 1980s. Both the Malcolm Baldrige National Quality Award (MBQNA) and the European Foundation for Quality Management (EFQM) are two excellence frameworks that have provided value (e.g. Conti 2007, Garvin 1991, George et al 2003, Dale et al 2000, Denney et al 2009) for organisational improvement. Garvin (1991) reports that “in just four years, the Malcolm Baldrige National Quality Award has become the most important catalyst for transforming American business” (p. 80). The value of the MBQNA is captured succinctly by Denney et al (2009: “The criteria provide a structure to help align and focus all areas of an organisation with key stakeholder needs and expectations” (p. 40). Dale et al (2000) writes that “EFQM case studies confirms many successes across most European countries” (p. 5). George et al (2003) provides insights into how the EFQM excellence model generates success for organisations.

“The aim (EFQM Excellence Model) is to identify performance weaknesses with a view to identifying root cause and thereby instigate improvements in order to achieve planned goals”.

(p. 123)

Despite their popularity, Conti (2007), one of the founders of the EFQM excellence model and past VP for Corporate Quality at Olivetti Group, states that “further innovation is needed in quality management, if we really want to pursue continuous organisational improvement” (p. 112).

Conti (2011) elaborates further on the type of innovation that is required:

“I believe that both the Malcolm Baldrige and the EFQM models had a good start but their evolution toward complete fitness models was restrained by their own initial success. They were conceived as the main instruments to contrast the Japanese quality offensive based substantially on defect rates reduction. Their focus was then mainly on “doing things right”. So far so good. But, in order to become fitness of/purpose models they should have evolved to cover all the value generation activities. That did not happen because the emphasis was more on exploiting their success than on pursuing further innovation”

(p. 257)

In line with Conti’s (2011) call for the development of a model that “covers all the value generation activities”, this study’s objectives are focused on the development and validation of a new continuous improvement framework. In specific terms, the aim addresses the following:

1. To develop and validate a new continuous improvement framework for increased organisational return on investment (ROI).

In order to address the research aim, the study answers the following questions:

- Q1. What are the key components of continuous improvement?
- Q2. How are these components connected inside a customer value improvement framework for increased ROI?

The first part reviews customer value and strategic quality. This forms the basis for the conceptual framework. This next part details the methodology that was adopted. The final part of the paper presents the results and discusses the implications.

2. Customer Value

Without the customer there is no business. Organisations exist because of the value that they bring to the customer. Therefore, it is of paramount importance that an organisation understands first, how value is defined and second, what the customer means by value. Despite the importance of value, difficulties can arise in defining value. For instance, de

Chernatony et al, (2000) posit that this difficulty stems from the “subjectivity of value (Hardy (1987), variations between customers (Wilstrom and Normann, 1994), within customers (Parasuraman, 1997), between cultures (Assael, 1995), in different situations (Ravald and Gronroos, 1996), pre- and post-purchase (Gardial et al., 1994), and between tangible and intangible offerings (Nauman, 1995)” (p. 41). The researchers concur with de Chernatony et al (2000) by contending also that value is a subjective term and can mean different things to different people. Awareness of this difficulty will assist organisations in understanding challenges that arise in customer value identification and delivery. According to Porter (1996), value is concerned with “what buyers are willing to pay for” (p. 3). Naumann (1995) refers to customer value as “the ratio of benefits to the sacrifices necessary to obtain those benefits” (p. 102). So, in the case of an organisation receiving a high quality product in parallel with support services below the organisation’s expectation, the organisation may decide to cease business with the supplier as a consequence of the sacrifice element. This comparison between performance and expectation is central to business and has received a lot of attention in the literature (e.g Grönroos’s 1982, Parasuraman et al 1985, Zeithaml et al. 2009).

In line with Grönroos’s view (1982), Parasuraman et al. (1985) argues succinctly that one dimension of quality involves a “comparison between expectations and performance” (p. 42). Similarly, Zeithaml et al. (2009) identifies the customer gap as the “difference between customer expectations and perceptions”(p. 32). Naumann (1995) refers to this gap as the “reality gap” (p. 98). This gap is critical to customer value improvement for organisations. Consequently, it is of paramount importance that organisations identify the gap with a view to putting strategic improvements programmes in place to close the gap. For example, a hotel front desk could pose the questions in Table 1 to their customers with respect to front desk service levels.

Table 1: Performance Expectation Sample Questions

No	Question	Category
1	How would you rate the front desk service level?	Performance Question
2	Does the front desk service level meet your expectations?	Expectation Question
3	What changes if any are required in front desk service levels to meet your expectations? Please describe.	Performance-Expectation Gap Question

The output to the questions on Table 1 could form the basis for the construction of the performance-expectation grid on Figure 1. This grid on Figure 1 represents an adaptation of Martilla’s and Jame’s (1977) Performance-Importance grid.

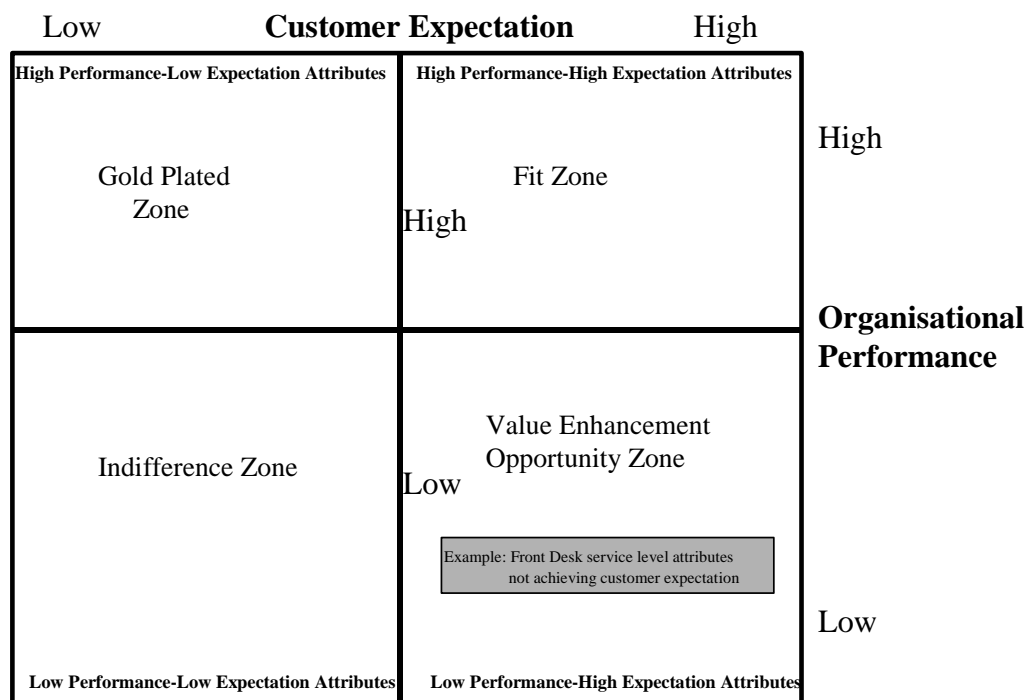


Figure 1: Performance Expectation Gap Analysis Grid

Figure 1 will help to provide clarity on where improvement needs to take place from a customer expectation perspective. From an internal customer value perspective, this performance-expectation gap has relevance to all process led organisations. Asking the powerful question below can be the start of an exciting journey in process customer value improvement.

What are the performance-expectation gaps in the processes that my organisation executes?

For example, where a customer requires delivery of emergency parts inside a certain timeframe, a delay in the delivery could cause major performance problems in the customer value chain. In this example, achieving customer performance expectation for the lead-time criteria provides value for the customer. At an organisational level, this systematic identification and closure of the performance- expectation gaps at all key processes will provide strategic benefits for both the customer and the organisation.

In summary, organisations exist because of the value they bring to customers. Therefore, it is critical that organisations understand their value proposition through the eyes of the customer and that they have programmes in place to identify and close any internal and external customer value gaps that exist in their processes.

3. Strategic Quality

In line with Deming's (1994) thinking, a service could be deemed a quality service if it helps somebody, provides customer value, and has a sustainable market. Quality is connected to the customer through the value that is generated by the organisation to meet the customer requirements and expectations. These requirements and expectations are not static and require continuous improvement by the organisation in order to understand and meet the ever-changing customer value requirements. In addition to the improvement of organisational products and services for the benefit of the customer, cost efficiencies are also of paramount importance for organisations. Therefore, an organisation is constantly focused on improving the customer value experience and improving the way the value is delivered to the customer through the company quality initiatives. This connection or fit between the customer or market and the organisation highlights the strategic role of quality.

Our views are also aligned closely to Peter's (1999) contention that the origins of quality stems from a desire to run the organisation better by firstly focusing on the customer needs and secondly, by producing the customer service in the most efficient manner. Similarly, Wilshaw and Dale (1996) posit that differentiation of a company's offering in the market place "could only be achieved by a combined product and service offering, which fulfilled the needs, wants and future expectations of customers, in a cost-effective manner" (p. 402).

We believe that this customer focus and efficiency drive, a central part of the quality strategy, needs to be reflected in the overall business strategy and quality improvement programme objectives. Our views are closely connected to Asif et al's (2009) views. Asif et al (2009) contends that there is potential for competitive advantage when Quality Management Programmes (QMP) are "effectively aligned with organisational strategy and institutionalised in an organisational setting (p. 788).

In summary, we contend that these views on customer focus, efficiency, and integration of the customer to the overall strategy, capture the essence of quality's strategic role, and represent a vital cog in the development of a continuous improvement framework. Also, this strategic view of quality helps to distil out the key quality concepts of a continuous improvement framework.

4. Quality Concept Inputs for a continuous improvement framework

Pulling out a key theme from the previous section: The customer drives the strategy and the strategy drives or directs the organisation. With the customer central to the strategy, organisational improvement objective targets are cascaded down to the various levels in the organisation. In our opinion, this is central to improvement. We contend also similar to Oakland (2005) that the strategic focus for a continuous improvement framework needs be around customer, process and people. Without the customer, there is no business. With the customer as the central focus, people and processes combine to meet customer needs and expectations.

In addition, Oakland and Tanner (2007) contend that the process is central to improvement. Oakland and Tanner (2007) found that the key link between the strategic objectives and the operational improvement is the core processes. In order to integrate the components of customer, process and people inside a continuous improvement framework, we argue that there is a need also for a visionary (leadership component), a customer focused strategic objective component and a vehicle to structure the vision (methodology component) and improvement specialists to drive the methodology. So the question arises: What is the rationale for the inclusion of these core components inside a continuous improvement framework?

4.1 Customer value focused process

First and foremost an organisation operates in the marketplace because of the customer. Therefore, an organisation exists to meet the needs and expectations of the customer. Once we have established the customer needs and expectations, organisational processes need to be configured around what the customer is willing to pay for. Oakland and Tanner (2007) provide credence to the power and central role of the process. In a study of 28 public sector organisations, Oakland and Tanner (2007) found that the key link between the strategic objectives and the operational improvement is the core processes. Oakland and Tanner (2007) added that if this link is broken the change becomes ineffective. Oakland (2005) crystallises further the process roles in organisations:

“Everything we do is a process, which is the transformation of a set of inputs into the desired outputs. In every organisation there are some core business processes that must be performed especially well if the mission and objectives are to be achieved.”

(p. 1055)

Many authors also highlight the importance of the connection between customer and process (e.g Botha 2012, Burrill and Ledolter 1999; Deming 1986, Grönroos 1996; Hastings 2008, Walsh 1995). Grönroos (1996) further adds that this process approach allows organisations to “direct efforts towards the demands and expectations of customers” (p. 10). Walsh (1996) argues that a process approach allows reward and recognition systems to be based on the contribution people make to the process and its outcomes. Walsh’s (1996) thinking connects the customer to the process, and the people to the process and customer, through the alignment of the process outcomes to the customer requirements and expectations. Saint Luke’s (2012) of Kansas, a regional network of hospitals (Hastings, 2008) highlights the practical significance of the process: “...we discovered that processes—not the individuals performing them—accounted for 90 percent of our problems and that we’d been wasting time and resources using audits to improve performance” (p. 25). The process views articulated (i.e Grönroos 1996, Walsh 1996) in addition to the practical example at Saint Luke’s

(Hastings, 2008) provides credence to the significance of the process. Overall, this customer focused process component integrates the needs and expectations of the customer into the overall organisational process structure for the purpose of enhancing the customer value experience.

4.2 Customer value focused leadership

The second component is focused on leadership. Numerous authors highlight the importance of leadership (e.g. Dahlgaard and Dahlgaard 2007, Dean and Bowen 1994, Deming 1986, Feigenbaum 1991, Oakland 2011).

Oakland (2011) articulates the essence of effective leadership:

“Effective leadership starts with the chief executive’s and his top team’s vision, capitalising on market or service opportunities, continues through a strategy that will give the organisation competitive or other advantage, and leads to business or service success. It goes on to embrace all the beliefs and values held, the decisions taken and the plans made by anyone anywhere in the organisation, and the focusing of them into effective, value-adding action”

(p. 525)

In addition, central to effective leadership is that leaders, who operate in the various units of the business and at different levels of the business, are jointly committed to the same quality goals. In other words, effective leadership fosters unitary of purpose and commitment throughout the organisation. For example, an organisation that has a strong quality focus at middle management level will not generate optimum results if the senior management team does not demonstrate the same levels of commitment. Johne and Harborne (2003) conducted a leadership empirical study involving retail bank new product development. They concluded that effective co-leadership between the different levels in the organisation was the critical success factor for new product project success. This co-leadership component fostered participation, communication and co-operation at all levels. Co-leadership drives “joined up leadership”.

Overall, the customer value focused co-leadership component has the potential to increase communication, help to create a partnership between strategy development and

strategy execution, bring ownership and strategy implementation to the fore, and in turn, provide a platform for higher levels of process customer value improvement.

4.3 Customer value focused strategic objectives

As organisations exist because of the customer, it is essential that the organisational improvement strategy is aligned to both the internal and external customer. Asif et al (2009) research findings call for an effective integration of Quality Management Programmes (QMP) into the business strategy.

“The QMPs need to be effectively integrated with the business strategy, which steers the business processes towards its unique competitive advantage. An undesirable scenario would be employing QMPs as sub-methodologies that take the form of tools and techniques (quick fixes) and thus remain as stand-alone programs which fail to yield desired results”.

(p. 778)

Similarly, Coronado and Antony (2002) view the link between Six Sigma and the business strategy, and the link between Six Sigma and the customer as critical factors for the successful implementation of Six Sigma

In summary, effective customer focused strategy formulation and implementation guides an organisation in a direction that fits its capabilities and the customer market that it serves.

4.4 Improvement Specialists with People Performance Knowledge

The fourth component centres on improvement specialists with people performance knowledge. Organisational performance improvement is achieved through people. For example, many organisations utilise Six Sigma Green Belts, Six Sigma Black Belts (BBs) and Master Black Belt (BB) resources or in-house trained specialist to lead improvement. As people are central to improvement, improvement specialists need to understand the behavioural element of improvement. Our views are aligned closely to Antony and Snee (2010) views and to del Angel and Pritchard (2008) views. Antony and Snee (2010) contend that MBBs and BBs need to deal effectively with teams and group dynamics. Antony and Snee (2010) conclude that “leadership requires dealing

with people, which in turn requires understanding human behaviour to be effective” (p. 11) Similarly, del Angel and Pritchard (2008), change and performance improvement consultants, report that technically sound change designed by Six Sigma, Lean or similar applications could be at risk of failing unless supported by the appropriate behavioural change. del Angel and Pritchard (2008) add that “experiences in the field indicate that most managers come up short in their approach to the behavioural elements of change” (p. 41). On the same theme, Bennis and Namus (2007) argue that “the capacity to generate and sustain trust is the central ingredient in leadership” (p. xiv). Bennis and Namus (2007) add that “the trust factor is the social glue that keeps any system together”.

Overall, improvement specialists are process change leaders who need an understanding of how to get the most out of people in addition to the technical elements of continuous improvement. An improvement specialist who has deep knowledge and understanding of how to build trust and commitment, and on what drives people performance will have the potential to achieve higher performance outcomes for the organisation. Finally, this component ensures that the organisation has improvement specialists with a balanced soft and technical skill set. This component will provide the leadership team with a platform for the development of strategic capabilities to deliver and enhance customer value.

4.5 Improvement methodology

Deming (1986) puts the methodology component into perspective: “Where do you hope to be five years from now? How may you reach this goal? By what method?” (p. 19). Motorola and GE have made breakthrough improvements using Six Sigma. Similarly, Toyota has built their competitive advantage around the Toyota Production System.

The methodology component translates into selecting the appropriate customer value improvement methodology for the process. In some cases, Six Sigma may be deemed to be the most appropriate methodology. In other cases, Six Sigma may not be the preferred methodology. For example, Douglas et al (2009) contend that Six Sigma, a reductionist approach, “works well for simple, well defined ‘hard’ problems but fails to perform well on complex, ill defined ‘soft’ problems and when the parts of a more

complex problem are independently optimised” (p. 144). An improvement methodology can vary in complexity from a process mapping approach or individual suggestion and implementation approach (Bhuiyan and Baghel, 2005) to a customised approach. Akamavi (2005) reports on the use of the process mapping approach to streamline the process of opening a Lloyds TSB student account at a local branch. The process mapping approach (Akamavi, 2005) facilitated the introduction of a simpler, faster and more economical process.

Another important point worth noting, which is often overlooked, is that an agreed improvement methodology provides a common language for the execution of improvement objectives. In other words, a common improvement methodology, which is understood by the organisational team, enhances communication, and ultimately organisational outcomes.

In summary, the core challenge for organisations today and in the future involves identifying, delivering and improving value to the customer, both at an internal and external level. In order to optimise this value improvement paradigm, the researchers argue in line with sections 4.1 to 4.5, that the following components are needed:

- A customer value focused process component allowing inputs to be transferred into the desired outputs (See Section 4.1).
- A customer value focused co-leadership component where key leaders at all levels are driving for the same goals and objectives (See Section 4.2).
- A customer value focused strategic objective component where the customer requirements are integrated into the organisational objectives (See Section 4.3).
- An improvement specialist component with people performance knowledge providing expertise in areas such as Lean, Six Sigma, Agile, Project Management or customised methodologies (See Section 4.4).
- An improvement methodology component allowing the organisation to follow methodologies that fits the organisational needs. e.g Lean, Six Sigma or a customised methodology (See Section 4.5).

Overall, the researchers contend that the proposed framework on Figure 2 incorporates all the core components of organisational customer value improvement.

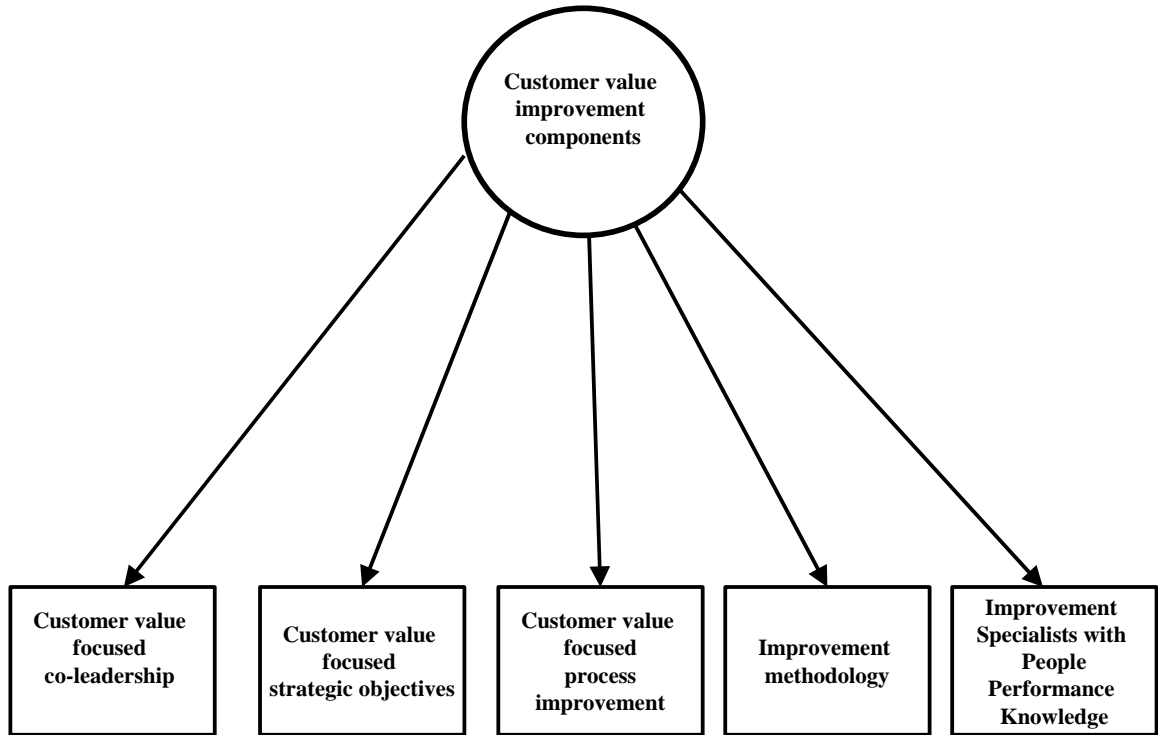


Figure 2: A conceptual framework for continuous improvement

5.0 Methodology

Field based data was collected using a two-step approach. The first step involved interviewing seven people who were organisational experts in continuous improvement activity. The second step involved the collection of survey data from a sample of companies from the IDA company list. The target respondents were quality managers. 610 companies were contacted resulting in 152 completed responses being returned for analysis. This represented a 24.9% useable response rate which compares favourably with Edwards and Peccei (2010) study (31% response rate) on organisational identification. The questionnaire developed for this study was structured into three main sections. The first section asked respondents to rate the continuous improvement framework component effectiveness for driving customer focused process improvement. In this section of the survey, the researchers probed for the possibility of

missing continuous improvement components. The next section focused respondent's attention on rating the overall effectiveness of the framework for increased organisational return on investment (ROI). The final section probed for demographic organisational information.

Step 1: Interview Phase

The first step of the empirical phase involved interviewing organisational quality experts. The organisational quality experts were selected based on their experience in continuous improvement and their certifications. Table 2 outlines the profiles of the personnel that were utilised for the interviews.

Table 2: Interviewee Profile

No	Position &	Country	Industry
1	Consultant (Internal and External Process Improvement) & Six Sigma MBB Certified with over 30 years experience in continuous improvement.	Ireland	Service
2	Quality Manager and Six Sigma MBB certified with over 20 years experience in continuous improvement.	Denmark	Electrical Casing manufacturing
3	External Process Improvement Consultant and Six Sigma Black Belt Certified with over 25 years experience in continuous improvement.	Ireland	Service
4	Internal Improvement Specialist and Certified BB with over 15 years experience in continuous improvement.	USA	Medical Devices
5	Operations Manager and Lean Certified with over 20 years experience in continuous improvement.	USA	IT Services
6	Product Development Specialist and Certified MBB with over 20 years experience in continuous improvement	USA	Medical Devices
7	Head of Quality and MBB Certified with over 20 years experience in continuous improvement	Germany	Medical Devices

The first objective of the interviews was to determine if there were any components missing from the conceptual framework. The second objective was focused on determining the significance of each of the components with respect to process improvement presented on Figure 2. The third objective focused on determining how these components are interconnected inside a continuous improvement framework. Two themes emerged from the first round of the interviews. First, the components presented on Figure 2 represent the complete set of components. Second, the components of improvement methodology and improvement specialists can have different levels of importance inside different organisations. For example, some improvement activities may require dedicated specialists using structured improvement methodologies. On the other hand, other continuous improvement activities may be completed by existing process personnel. The consensus from the first round of interviews resulted in the development of a path conceptual framework that is presented on Figure 3.

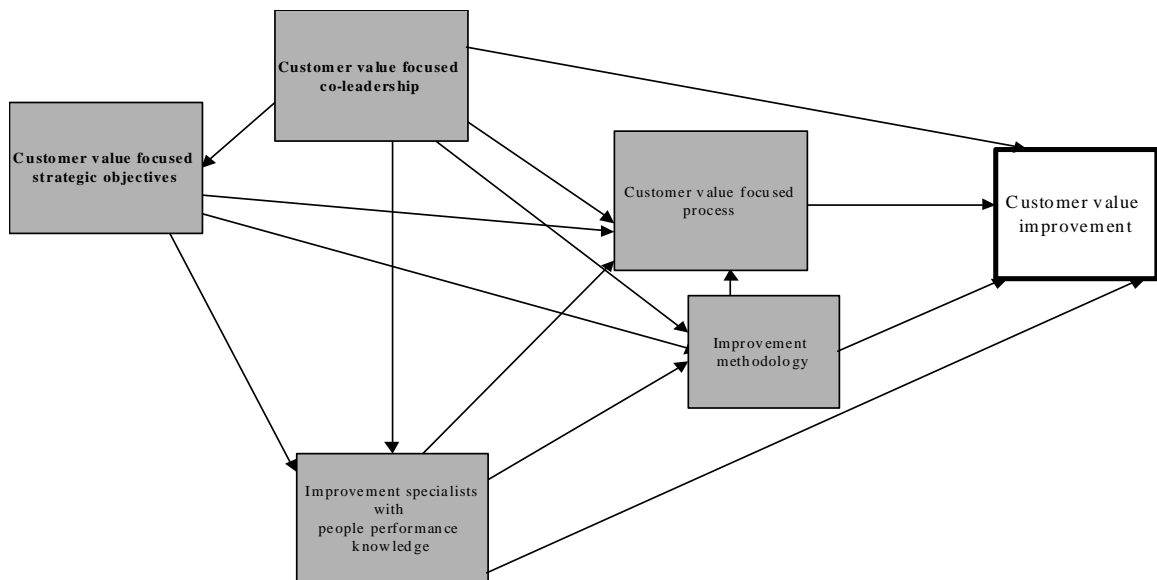


Figure 3: A path conceptual framework for continuous improvement

After completion of the first interview phase, a second round of interviews was carried out involving the same interviewees from round one. As a consequence of the second round of interviews, the consensus evolved from the path conceptual framework (See Figure 3) to the view that improvement must take place with the process at the core. The

second theme that emerged was that the components of customer value focused co-leadership, customer value focused strategic objectives, improvement specialists with people performance knowledge and improvement methodology combine to drive process customer value improvement leading to increased return on investment. Taking this a step further, the framework presented on Figure 4 recognises formally improvement that is carried out by process personnel throughout the organisation. In specific terms, an organisation may advance to a maturity level whereby all process personnel are trained on specific improvement tools and techniques and are adopting a customised methodology for their respective processes. The revised conceptual framework from the second interview phase is shown on Figure 4.

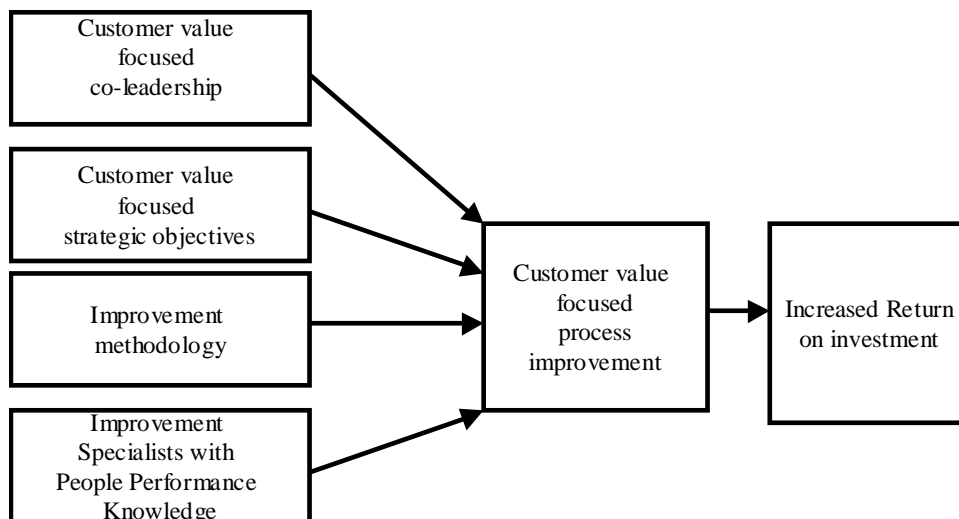


Figure 4: A conceptual framework for continuous improvement

Step 2: Survey Phase

A survey was then circulated to 610 companies from the IDA Company List (IDA Company List, 2012) seeking the Quality Managers opinion on the significance of the continuous improvement components and the effectiveness of the framework presented on Figure 4. The results of the survey are presented in the next section.

6. Results

152 completed surveys were used as a basis for analysis. This represents a useable response rate of 24.9%. The analysis revealed that the framework on Figure 5 was deemed to be a valid framework for process customer value improvement and increased organisational return on investment (ROI).

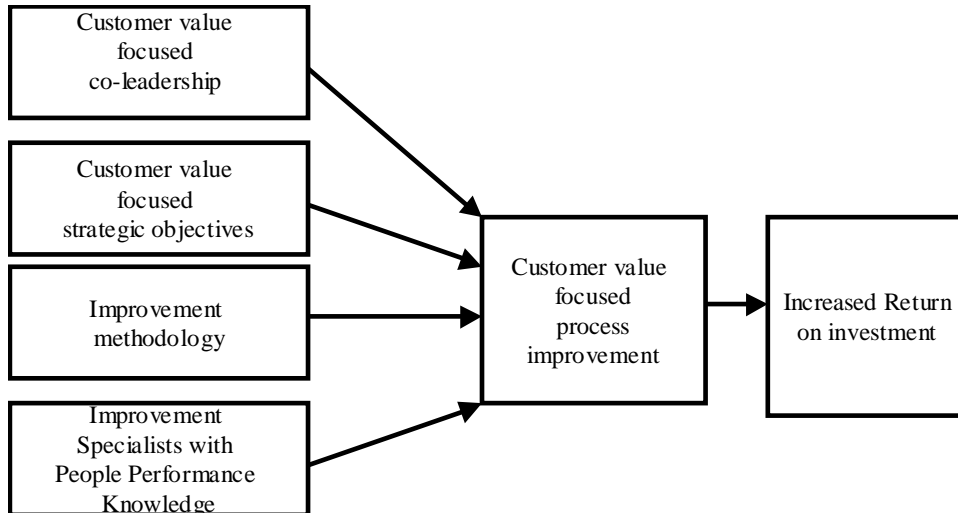


Figure 5: A four forces framework for continuous process improvement

A five point likert scale was used to assess the effectiveness (Scale: 1 = Very Ineffective 2 = Ineffective 3- Neither effective or ineffective 4 Effective 5 = Very Effective) of the framework and the individual components. A one sample t test was carried out to measure the effectiveness of the framework presented on Figure 5. In addition to testing the effectiveness of the framework, the effectiveness of each component for driving process customer value improvement was tested. The test output (See Figure 6) from the 152 companies provides statistical evidence that the framework is an effective framework.

Table 3: SPSS One Sample T Test Output.

One-Sample Test						
	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
customer focused coleadership	10.437	151	.000	.533	.43	.63
customer focused strategic objectives	6.513	151	.000	.263	.18	.34
improvement specialist with performnace knowledge	3.315	151	.001	.125	.05	.20
improvement methodology	2.746	151	.007	.138	.04	.24
framework effectiveness	7.907	151	.000	.375	.28	.47

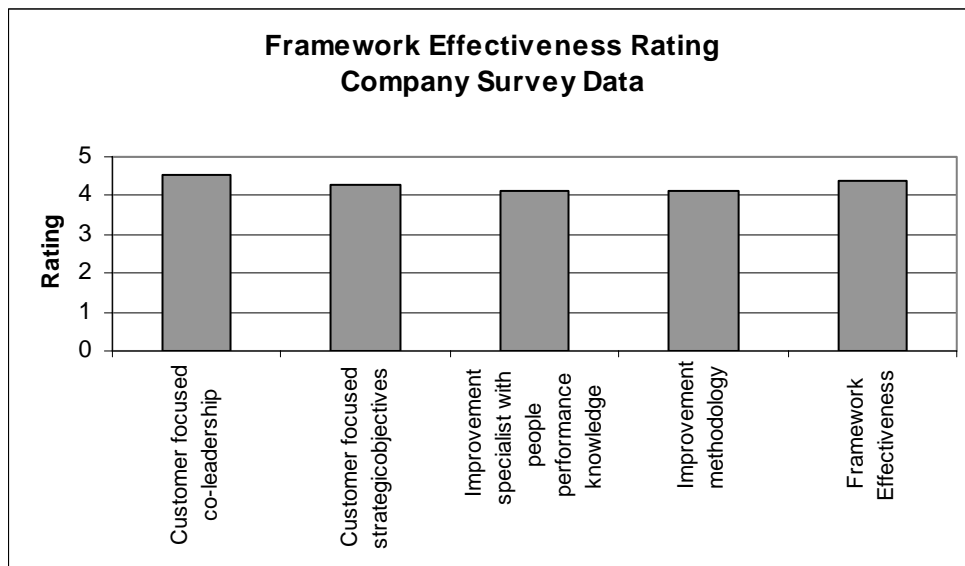


Figure 6: Framework Effectiveness Average Rating

From a practical standpoint, the main theme that emerged was that the component combination of customer value focused co-leadership, customer value focused strategic objectives, improvement methodology, improvement specialists with people performance knowledge combine to drive customer process improvement leading to increased organisational return-on-investment (ROI). One common reason that was cited for the effectiveness of the framework was that it contains all the vital components

or forces of process customer value improvement. Another important theme which emerged was that each individual or team from the organisation involved in process improvement could have their own framework (See Figure 6) that details the customer strategic objective(s) that they can influence, the co-leadership support names and the improvement methodology that they need to be competent in order to achieve their customer focused strategic objectives. In this way, a higher percentage of employees have a strategic focus and a formal role in organisational continuous improvement. Overall, it is an effective framework that is easily understood and can be applied throughout any process led organisation. This is supported by the empirical data.

7. Implications for practitioners and academics

The consensus from the empirical study is that this new continuous improvement framework is an efficient and effective model that has application in all process led organisations that are involved in customer value improvement. The empirical data indicates that the key forces of continuous improvement are customer value focused co-leadership, customer value focused strategic objectives, improvement methodology, improvement specialists with people performance knowledge. These forces can be improved inside the organisation to drive process customer value improvement and increased return on investment.

The study answers Conti's (2007) call for the development of a model that incorporates all the value generating components.

8. Future Research

The in-depth interviews and surveys were carried out on companies that have a base in Ireland. It would be beneficial to replicate this study in a different country. Second, future case studies that collect return on investment information during the deployment of this framework would provide rich insights for management decision-making. Third, a study that looks at the relationship between this new framework and the EFQM excellence model or the MBNQA has the potential also to provide additional value for organisations. Finally, from an academic perspective, this new continuous improvement

framework can form the basis for further research in each of the continuous improvement framework components.

9. Conclusions

The conclusion from the empirical results is that this is an efficient and effective continuous improvement framework that has application in all process led organisations. The empirical data indicates that the key forces of process continuous improvement are customer value focused co-leadership, customer value focused strategic objectives, improvement methodology, improvement specialists with people performance knowledge. By adopting this framework, all process personnel can have a role to play in process improvement leading to increased organisational return on investment.

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Chapter Eight: Results, Discussion & Conclusion

8.1 Introduction

This chapter presents an overall summary of the results, thesis contribution, future research proposal and study conclusion. This chapter begins by revisiting the study research aim and objectives. This is then followed by the results section. The chapter continues with a discussion of the value of the study and concludes by outlining the research limitations, future research and personal learning that was experienced by the researcher.

8.2 Research Aim and Objectives

The thesis aim is driven by the inadequacies that have been reported by numerous authors about existing excellence frameworks in addition to the call for further innovation in excellence frameworks from Conti (2007), one of the founders of the EFQM excellence model. Consequently, the research aim for this study was to review continuous improvement with a view to providing deeper knowledge and understanding.

In specific terms, the aim of this study addresses three areas:

1. To comprehensively explore customer value improvement (CVI) with a view to the identification of the key CVI components.
2. To develop and validate a new customer value improvement framework for increased organisational return on investment (ROI)..
3. To provide in-depth knowledge for organisational leaders and improvement specialists on how customer value improvement can be adopted effectively inside the organisational setting.

In order to address the research aim, the study answers the following questions:

Q1. What are the key components of customer value improvement in organisations for increased organisational ROI?

Q2. How are these components of customer value improvement connected inside a customer value improvement framework for increased organisational ROI?

Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of organisational customer value improvement?

In order to address the question on the key components of customer value improvement a three-strand literature review approach was taken. As part of the first strand of the literature review, an effectiveness review of the MBNQA and the EFQM excellence model was carried out with a view to identifying the weaknesses and strengths. Similarly, the second strand reviewed the effectiveness of Six Sigma. The third strand of the research reviewed the role of strategic quality and customer value. Combining these three research strands enabled the researcher to distil the key concepts for customer value improvement. This comprehensive three-strand approach formed the basis for the Customer Value Improvement (CVI) Component framework presented on figure 8.1.

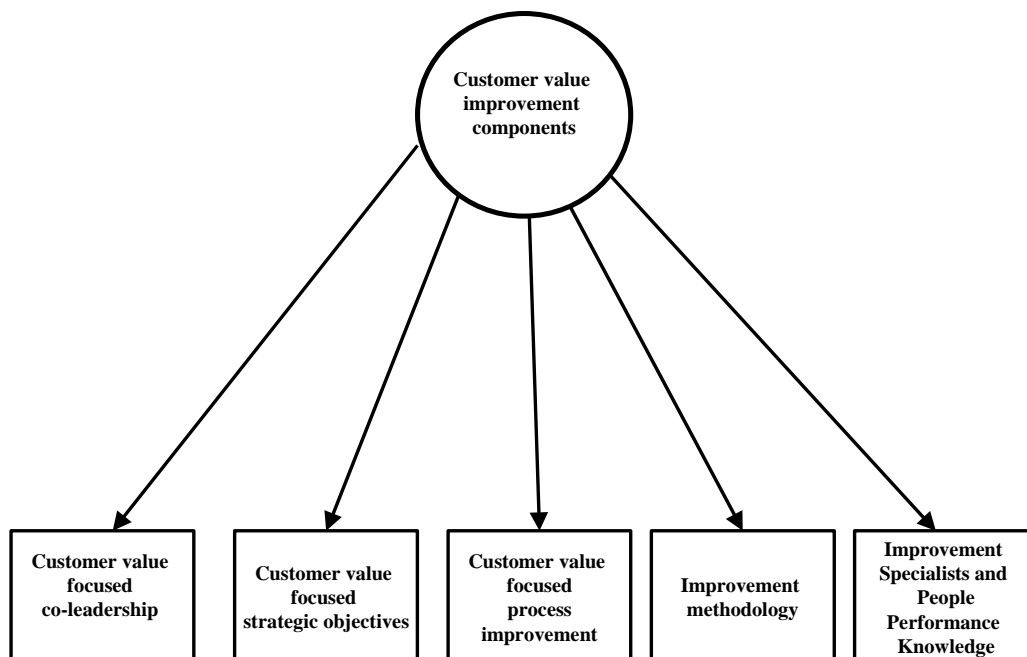


Figure 8.1: Customer value improvement component conceptual framework

The next section contains a summary of the framework validation.

8.3 Customer Value Improvement Framework Validation

8.3.1 Introduction

The interview and company survey approach were utilised to validate the framework presented on figure 8.2. This section provides a summary of the interview results and the company survey results.

8.3.2 Interview Results Summary

The interview phase involved conducting a series of structured interviews. Two interview steps were conducted resulting in the development of the framework that is presented on Figure 8.2.

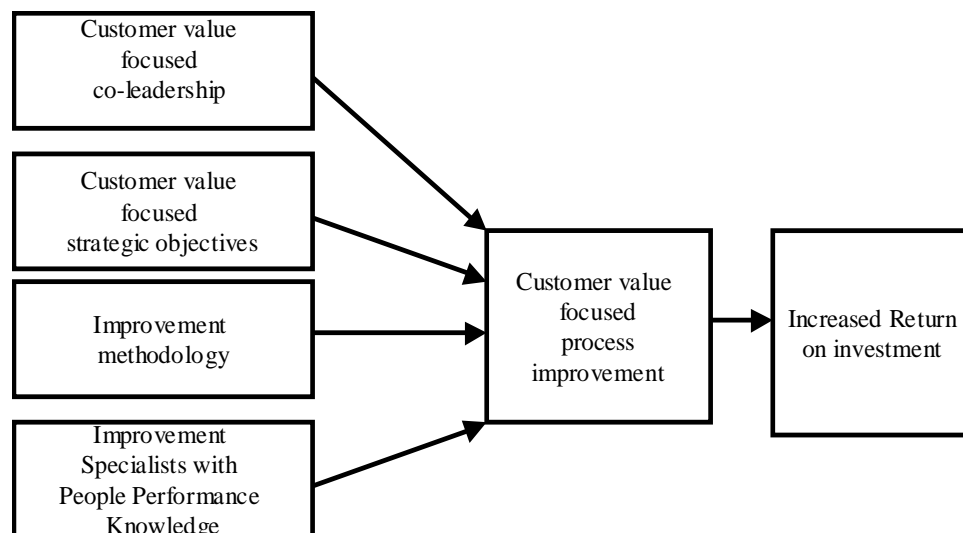


Figure 8.2: Customer value improvement conceptual framework

The methodology section of this study provides detail on how this framework presented on Figure 8.2 was developed. The consensus from the two-step interview approach was that this framework is an effective framework for driving customer value focused process improvement and will lead to increased return on investment (ROI). In addition, the interviewees did not identify any additional components to the components presented on Figure 8.2. With respect to each individual

component, there was consensus around the point that each individual component will have a positive impact on process customer value improvement.

8.3.3 Company Survey Results

152 completed surveys were used as a basis for analysis. This represents a useable response rate of 24.9%. The analysis revealed that the framework on Figure 8.2 was deemed to be an effective framework for process customer value improvement and increased organisational return on investment (ROI). A five point likert scale was used to assess the effectiveness (Scale: 1 = Very Ineffective 2 = Ineffective 3- Neither effective or ineffective 4 Effective 5 = Very Effective) of the framework and the individual components. A one sample t test was carried out to measure the effectiveness of the framework presented on Figure 8.2. The test was conducted at the test value equal to 4. The test output from the 152 companies (See Figure 8.3) provides statistical significance that the framework is an effective framework for process customer value improvement and increased organisational return on investment (ROI).

Table 8.1: SPSS One Sample T Test Output

	One-Sample Test					
	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Lower					Upper	
customer focused coleadership	10.437	151	.000	.533	.43	.63
customer focused strategic objectives	6.513	151	.000	.263	.18	.34
improvement specialist with performnace knowledge	3.315	151	.001	.125	.05	.20
improvement methodology	2.746	151	.007	.138	.04	.24
framework effectiveness	7.907	151	.000	.375	.28	.47

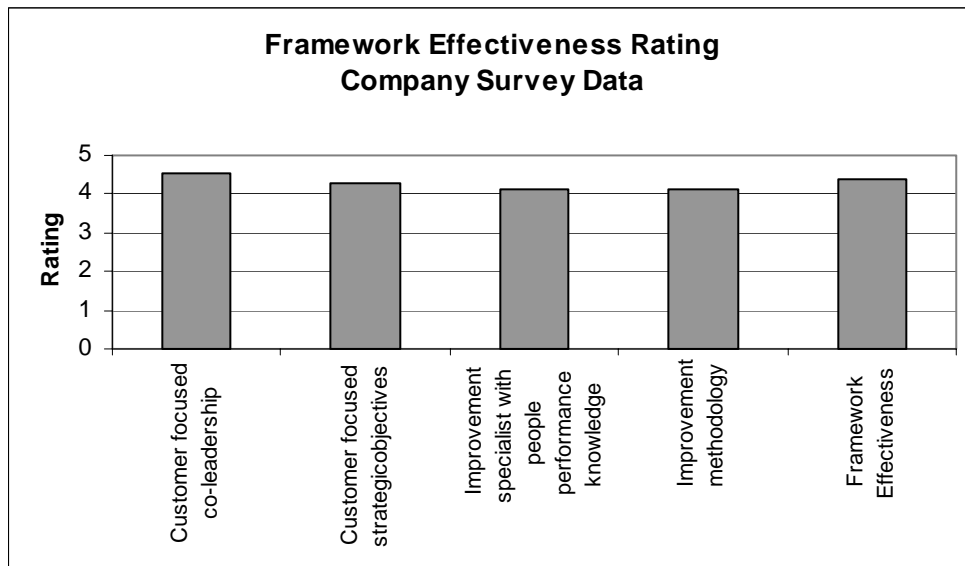


Figure 8.3: Framework Effectiveness Average Rating

From a practical standpoint, the main theme that emerged was that the component combination of customer value focused co-leadership, customer value focused strategic objectives, improvement methodology, improvement specialists with people performance knowledge, combine to drive customer process improvement leading to increased organisational return-on-investment (ROI). One common reason that was cited for the effectiveness of the framework was that it contains all the vital components or forces of process customer value improvement.

Data was also collected on the size of the organisation. A binary logistic model was setup to determine if the size of the organisation impacts the significance of the framework. Two outcomes were setup for this model. If the company respondent ranked the effectiveness of the framework as being 1, 2 or 3, the framework effectiveness ranking was transformed to 0 using the “recode into different variable function” in SPSS. Similarly, if the respondent ranked the effectiveness of the framework as being 4 or 5, the framework effectiveness ranking was transformed to 1 using the “recode into different variable function” in SPSS.

Table 8.2: Binary Logistic Output

		Variables in the Equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Size			1.318	2	.517	
	Size(1)	-1.299	1.173	1.227	1	.268	.273
	Size(2)	-.452	.863	.274	1	.600	.636
	Constant	3.091	.457	45.696	1	.000	22.000

a. Variable(s) entered on step 1: Size.

The significance column (Sig) tests the null hypothesis that there is no difference in framework effectiveness with respect to organisation size. As Sig > 0.05, the null hypothesis is not rejected. From a practical standpoint, this informs the researcher that this model is an effective customer value improvement framework for all organisations regardless of size.

Overall, the literature review and interviews in combination with the company surveys answered the two research question below.

Q1. What are the key components of customer value improvement in organisations for increased ROI?

Q2. How are these components of customer value improvement connected inside a customer value improvement framework for increased ROI?

A number of themes emerged from the empirical study in relation to the framework components presented on Figure 8.2. First, the consensus was that co-leadership is critical to customer value improvement. Where you have leaders across the organisation with a similar mindset and common purpose, you increase the potential to generate sustained improvement. Co-leadership drives success and will provide the organisation with the direction and support for increased performance. In the case where competent organisational improvement specialists are using appropriate improvement methodologies, sub optimisation will take place where the leadership team is not committed and do not support and recognise the improvement teams.

Second, all continuous improvement requires a link to the organisational strategy and the customer. The second component of customer value focused strategic objectives

ensures that all improvement activities are linked to customer value focused strategic objectives. There was general consensus that this component ensures that all customer value improvements are linked to the organisational strategy. Another common theme was that there is also a requirement for translating customer value focused strategies into defined KPIs and activities where possible. This can be achieved through dialogue with leaders at the various levels in the organisation. In addition, it was emphasised that it is important that customer focused strategy development and implementation need to be monitored to ensure that the capabilities are aligned to the strategic priorities.

Another emerging theme was the importance of the improvement specialist in organisations. As improvement specialists are process change leaders, the general view articulated was that improvement specialists need to be competent in the interpersonal element in addition to the tool, technique and system elements. On the same theme, the point was emphasised that improvement specialists need to have knowledge in building trust and commitment. It was also emphasised that improvement specialists can be part time improvement specialists or full time. The general viewpoint was that there is a shift from dedicated specialists to part time specialist. The empirical study also highlighted the importance in recognising all personnel that play a role in process customer value improvement. This will serve to engage more employees in process customer value improvement leading to more customer focused process improvement.

With respect to the improvement methodology component, the emerging theme was centred around the fact that there is a need to ensure that the methodology fits the objective and the team that are using it. Taking this a step further, organisations need to understand what tools and techniques works well at the various processes. This methodology assessment will ensure that the process is analysed and improved using appropriate tools and techniques.

With respect to organisational leaders, the empirical data points to the importance of leaders having an understanding of how to build trust, enhance commitment and co-operation for increased performance outcomes.

The final empirical theme is linked to the central role of the process. There was consensus around the need for the components of customer value focused co-leadership,

improvement specialist with people performance knowledge and improvement methodology to be integrated into the process.

The empirical study also provided insights into the third research question.

Q3. What knowledge is required by organisational leaders and improvement specialists for effective adoption of CVI improvement?

The core theme that emerged was that improvement specialists need to have in-depth knowledge of how to get the most out of people, in addition to the technical knowledge and skills. Improvement specialists need to be able to gain the trust and respect from the management team through an understanding of the business needs, the organisation and what needs to be done to bring all the players together for the common goal. For organisational leaders, the key knowledge areas included risk management, understanding the business, understanding the customers and how to build trust for increased co-operation and performance outcomes.

8.4 Value of customer value improvement framework for organisations

As a means of evaluating the value of framework presented on Figure 8.2, the researcher probed to see first, if there were any components missing from this framework. The consensus from the in-depth interviews was that this framework incorporates all the key elements of customer value improvement inside organisations. This survey findings also did not reveal any additional components to the components included in the framework. This new framework can demonstrate to each organisational employee where they fit into the organisational continuous improvement strategy. Each employee can own their own framework with individuals and teams having a set of tools and techniques that they need to be competent in. These basic customised tool sets can operate as standalone methodologies. When this approach is applied at an aggregate level, it will serve to bring a higher percentage of employees into customer value improvement.

The second area of value is centred around the fact that the new framework includes a people engagement component and a technical component. The technical component is addressed through the methodology component and strategy component with the people

engagement component being reflected in the improvement specialist and co-leadership component. The importance of the people engagement component was very prominent in the interviews and surveys. This was deemed to be important for both the organisational leaders and improvement specialists.

The third area of value for organisations focuses on the point that all of the customer value improvement components detailed in the framework can be changed to target a higher return on investment (ROI). For example, an organisation can use this framework to change how improvement specialists are deployed in organisations. This change could result in a decision to embed improvement specialists at the process. In this way, the revised deployment of improvement specialists could drive higher levels of sustained customer value improvement. Also, these iterations followed by a return on investment assessment will help to build ROI process knowledge.

The fourth area of value focuses on the link between the CVI framework on Figure 8.2 and project critical success factors. In a comprehensive article on the critical success factors for the successful implementation of Six Sigma projects, Coronado and Antony (1992) contend that the critical success factors are:

- Management involvement and commitment.
- Cultural change.
- Organisational infrastructure.
- Communication.
- Linking Six Sigma to business strategy.
- Project prioritisation and selection.
- Project management skills.
- Linking Six Sigma to human resources.

Table 8.3 Coronado and Antony’s Six Sigma Critical Success factors

Coronado and Antony (1992) CSF’s	How is this CSF addressed using the CVI Framework
Management involvement and commitment	Customer value focused co-leadership component
Cultural change	Customer value focused co-leadership component and Improvement specialist with people performance knowledge
Organisational infrastructure	Customer value focused co-leadership component and Improvement specialist with people performance knowledge component linkage to customer value focused process
Communication	Customer value focused co-leadership component and Improvement specialist with people performance knowledge component linkage to customer value focused process
Linking Six Sigma to business strategy	Linkage of customer value focused strategic objectives, customer value focused co-leadership, improvement methodology and improvement specialist with people performance knowledge component to customer value focused process.
Project prioritisation and selection	Linkage of customer value focused strategic objectives and customer value focused co-leadership component to customer value focused process
Project management skills	Improvement specialist with people performance knowledge component.
Linking Six Sigma to human resources	Linkage of customer value focused co-leadership component and improvement specialist with people performance component to customer value focused process.

Eaton (2010) contends that real success in change initiatives depends on having four elements in place:

1. A pressure for change that is felt throughout the organisation.
2. A clear and shared vision for where the organisation must improve.
3. Internal capability (time and skills mostly, but also including financial investment) to implement the changes.
4. An agreed programme of activity.

The researcher contends that the “pressure for change and a clear and shared vision” elements (Eaton, 2010) are addressed by the customer value focused co-leadership and the customer value focused strategic objectives components of the customer value

improvement framework. Similarly, the internal capability component is addressed through the linkage of the improvement specialist with the people performance knowledge component, improvement methodology, customer focused strategic objectives and customer focused co-leadership components. Also, in a study on why Quality Management Programmes (QMP) fail, Asif et al (2009) conclude that there is potential for competitive advantage when Quality Management Programmes (QMP) are “effectively aligned with organisational strategy and institutionalised in an organisational setting” (p. 788). For the new validated CVI framework presented on Figure 8.2, the linkage of customer value focused strategic objectives, customer value focused co-leadership and improvement methodology to the process ensures the alignment of the customer value improvement programme to the overall strategy. In addition, the published paper titled “Integrating the Balanced Scorecard with Six Sigma” provides detailed knowledge on the linkage between the customer focused strategic objective component and the improvement methodology component. In a paper titled “High performance work systems: the sum really is greater than its parts”, Denton (2006) concludes that if one wants long-term performance improvement one must connect all the dots and one must make sure there is a shared purpose. Based on the empirical evidence, the research concludes that the CVI framework presented on Figure 8.2 connects all the dots and bundles all the critical components for customer value improvement and increased organisational ROI into one comprehensive framework.

8.5 Contribution of the thesis

The research adopted a three-strand literature review approach in addition to a mixed methodology approach to advance the knowledge and theory in organisational customer value improvement.

8.5.1 Conceptual and empirical

Firstly, the researcher contends that this study is aligned to Demings’s Theory of Profound Knowledge. As outlined in the literature review chapter, the Theory of Profound Knowledge (Deming, 1994, p. 92) consists of four inter related elements:

- Appreciation for a system
- Knowledge about variation
- Theory of knowledge
- Psychology

The new validated customer value improvement framework can be classified as a “systems framework” because it contains all the vital system components for customer value improvement. This is supported by the empirical data. This new validated framework is linked to the “appreciation of a system” element of Demings Theory of Profound Knowledge. Also, the published paper (Heavey et al, 2011) titled “Enhancing performance: Bringing trust commitment and motivation together in organisations” is linked to the Deming’s Theory of Knowledge. This paper introduces and then connects the concepts of trust, commitment, motivation and performance. The paper provides an understanding of the value of the relational construct trust to organisational motivation and performance. Also, this paper extended Maier’s (1955) work on performance models through the development and validation of a revised performance model. As this paper is also connected to the behavioural element of performance, this paper also informs Deming’s “Psychology” component. Similarly, the published paper titled “A proposed co-operation framework for organisations and their leaders” (Heavey and Murphy, 2012b) is connected to the “Theory of Knowledge” and “Psychology” element. The power of co-operation for organisational leaders lies in its ability to enhance group effectiveness and increase performance. The proposed co-operation framework has utility for organisations and their leadership and informs us that trust has the potential to reduce risk and increase co-operation. The next published paper titled “Integrating the Balanced Scorecard with Six Sigma” (Heavey and Murphy, 2012a) is aligned also to the appreciation of a systems component through the new Balanced Scorecard-Six Sigma framework that is proposed. The new framework (Heavey and Murphy, 2012a), grounded on the Plan-Do-Check-Act cycle, provides new knowledge to organisations on how a customised balanced scorecard can be integrated with continuous improvement methodologies for performance metrics target achievement.

This study makes a significant theoretical contribution through the work undertaken for three different peer reviewed journals. The first published article articulates the key

elements of trust, commitment and performance. A scan of the Inderscience and Emerald databases between 1992 and 2012 revealed no empirical papers available that incorporated trust, commitment and performance constructs. Also, this knowledge gap was detected in the empirical phase of the study. This article introduces and then connects the concepts of trust, commitment, motivation and performance. This article continues by extending an existing performance model that was developed by Maier (1955). This article has application in all organisations that need to engage with people to advance customer value improvement.

The second article titled “Integrating the Balanced Scorecard with Six Sigma” extols the merits of integrating Six Sigma with the Balanced Scorecard. This article informs the strategy and improvement methodology component of the new CVI framework. This article crystallises how a fusion between Six Sigma and the Balanced Scorecard can add further value in comparison to a standalone implementation of either the Balanced Scorecards or Six Sigma. In addition, it highlights how strategy can be linked to improvement methodologies in organisations. This new integration framework is identified through firstly, leveraging the strengths of both the Balanced Scorecard and Six Sigma and secondly, by incorporating the key themes of the literature review. The paper concludes with a new framework for the integration of the Balanced Scorecard with Six Sigma and other related methodologies.

The power of co-operation for organisational leaders lies in its ability to enhance group effectiveness and increase performance. Fink and Kessler (2010) contend that the ability to maintain successful co-operation “is a critical resource in its own right” (p. 469). The third paper reviews the theory on trust, risk and co-operation. It puts forward a trust-risk-co-operation framework that will aid organisations understand how co-operation can be influenced using the trust construct. In addition, the article revisits the work done by Deutch (1949) on co-operative groups and competitive groups. This citing of Deutch’s (1949) work in this paper allows organisational leaders understand how groups and teams having goals that are both co-operative and competitive, can result in lower levels of performance. This third paper provides detailed knowledge for effective adoption of the co-leadership component in organisations. The fourth article

presents the development and validation of the new customer value improvement framework. Figure 8.4 shows the linkage of the articles to the study research objectives.

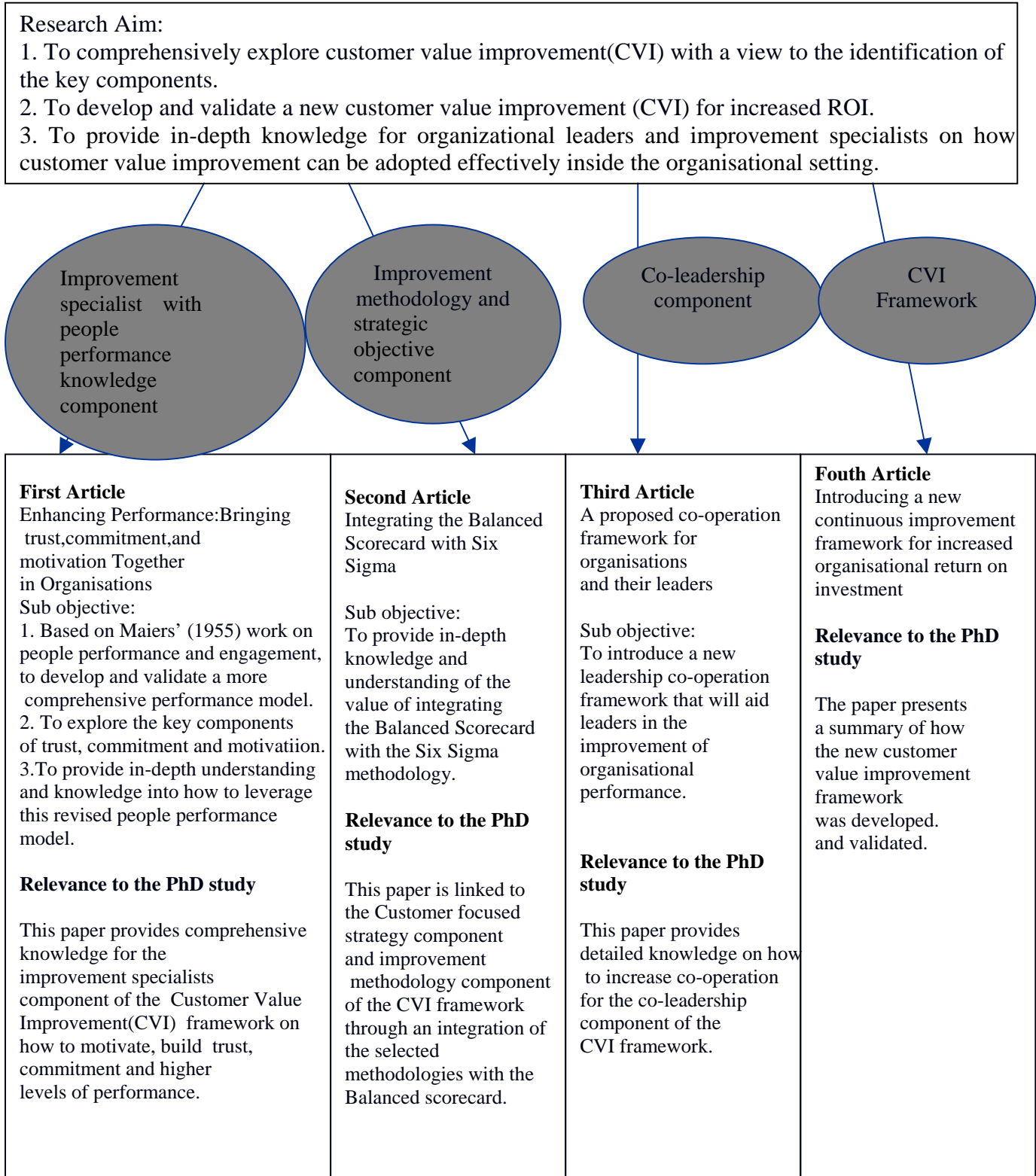


Figure 8.4 Linkage of articles to overall study

The next area of contribution is centred around the performance expectation gap analysis grid that is presented on Figure 8.5. The researcher contends that this grid, an adaptation of Martilla's and Jame's (1977) Performance-Importance grid, has application in all organisations that are looking to categorise gaps for improvement.

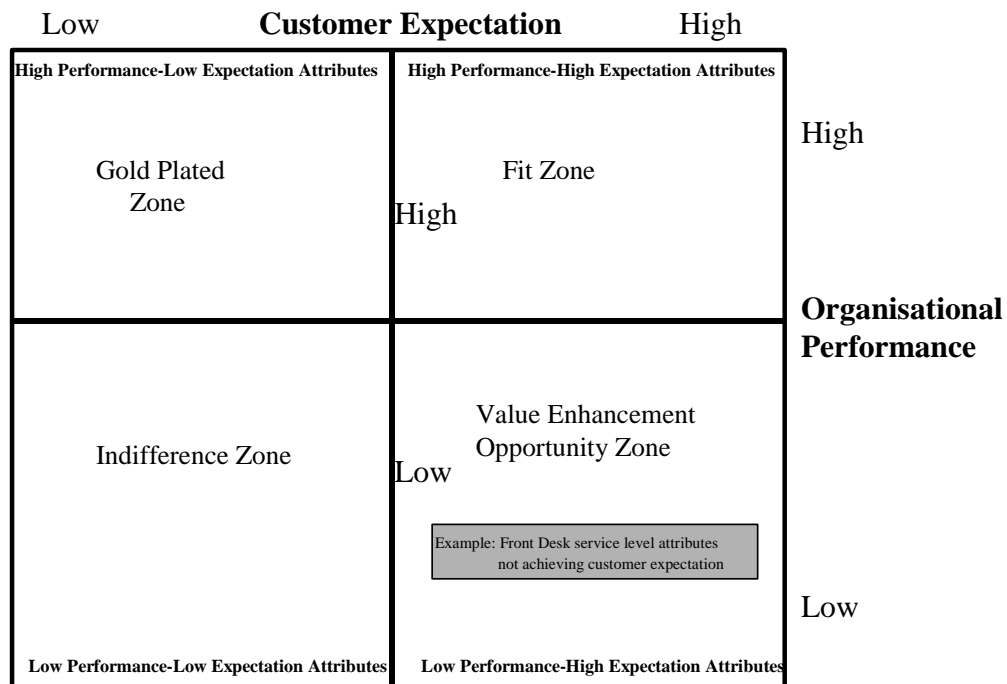


Figure 8.5: Performance Expectation Gap Analysis Grid

8.5.2 Practical contribution

In addition to the conceptual, empirical and methodological contribution, the thesis has a practical application for organisations involved in customer value improvement. First, this new validated framework can demonstrate to each organisational employee where they fit into the organisational continuous improvement strategy. Each employee can own their own framework with individuals and teams having their own set of tools and techniques that they need to be competent in.

Secondly, the empirical evidence demonstrates a clear and strong relationship between customer value focused co-leadership and process customer value improvement, between customer value focused strategic objectives and process customer value improvement, between improvement methodology and process customer value

improvement and between improvement specialist with people performance knowledge and process customer value improvement. These core components combine to drive process customer value improvement and increased return on investment. In line with Porters Five forces model (Brandenburger, 2002), the empirical data supports the theory that these components are the four forces of process customer value improvement. This framework will allow organisations to guard against “customer value improvement myopia” by focusng on all of the CVI components at the same time. Also, the framework provides insights into how an organisation can influence the key components of customer value improvement. For example, an organisation can use this framework to assess the impact of component changes. This change could result in a decision to embed improvement specialists into the existing process resources. In this way, the revised deployment of improvement specialists could drive higher levels of sustained customer value improvement.

The performance model that is outlined in the paper titled “Enhancing Performance: Bringing trust, commitment and motivation together in organisations”, (Heavey et al, 2011) and published in the Journal of General Management has application for all organisations. This model on performance represents an extension of the performance model that was initially proposed by Maier (1955) and cited by Mullins (2002). It can be utilised by leaders and improvement specialists for the enhancement of people performance throughout the organisation.

Finally, Conti (2007) makes a call for “freeing organisational improvement models from constraints imposed by specific applications that in some way freeze their development will certainly help quality management development” (p. 126). The researcher contends that this revised and validated framework presented on Figure 8.2 answers Conti’s (2007) call for a more flexible approach to continuous improvement frameworks and includes all the value generating components or forces of process customer value improvement.

8.6 Limitations

Despite the valuable contributions of this research, there are a number of limitations associated with this piece of research. First, the data is drawn from a sample survey over a six month period. A longer period may provide additional insights.

A second limitation exists in relation to the bias that can exist in conducting interviews and surveys. For example, respondents may be inclined to respond in a manner that presents their organisation in a positive manner. To mitigate this impact, the researcher gave the respondents the option to answer the questionnaire in relation to their existing organisation or a previous organisation that they worked in. The following introductory text was added to accommodate this option:

“The completed survey can relate to an organisation that you currently work in or a previous organisation that you worked in.”

8.7 Future Research Directions

The in-depth interviews and surveys were carried out on companies that have a base in Ireland. It would be beneficial to replicate this study in a different country. Second, future case studies that collected return on investment information during the deployment of this framework would provide rich insights for management decision-making. Third, a study that looks at the relationship between this new framework and the EFQM excellence model or the MBNQA has the potential to provide additional value for organisations. Fourth, this framework has the potential to provides a bridge between human resource management (HRM) and quality management allowing synergy to take place through the cross pollination of ideas and concepts. For example, an empirical study that looked at the development and deployment of a co-operation index could provide value to HRM, Quality Management and organisational leaders.

Fifth, a study that looked at the effectiveness of the co-leadership component inside “big relationship” multinationals could provide value for the organisations being studied.

Finally, a study that looks at the application of the Performance Expectation Gap Analysis Grid (See Figure 8.7) on process customer value improvement could be tested inside different organisations.

8.8 Personal Learning, Development, Conclusion and Final Reflections

From 2009 till now, I have embarked on a journey of personal and professional discovery. The PhD has advanced my knowledge in the area of customer value improvement, quality management, people engagement, advanced statistics and research. It has brought home to me the importance of human engagement inside any process customer value improvement cycle. In the words of Theodore Levitt, business is about people to people exchanges.

As a consequence of my three and a half year journey, I have increased my proficiency in the publication domain, in the research area domain, in the critical thinking domain, in the advanced statistics domain and in the effective application of customer value improvement in organisations. From a professional and personal standpoint, I believe that I am a much more rounded individual. I have built in reflection checkpoints into my overall research plan where I step back, and look at where I have come from, and where I want to go. During these reflection cycles, I have utilised the switching perspectives section to understand different stakeholder perspectives. For example, what do journal editors expect from a quality paper? Another key area of consideration is the expectations of my supervisors. Throughout my PhD journey, my supervisors have been very supportive. This supervisor support system has enabled me to reach a higher level of excellence in my studies.

Prior to commencing my PhD studies I had developed skills in uni-variate analysis. The PhD experience broadened my knowledge further through the development of multi-variate analysis skills. In specific terms, I have developed expertise in structural equation modeling (SEM).

In addition to gaining a high level of proficiency in advanced statistics, I have also acquired the ability to publish in peer-reviewed journals. Prior to commencing my PhD

studies I had no experience in journal publication. It was a concern that I would not have the capability to get published. This journey has changed my outlook in this area. For a “PhD by Article”, this is a critical skill that needs to be developed. The University of Limerick PhD by article guide illustrates its importance:

----- The student should be the main author on at least 50% of the published work and should be clearly able to demonstrate in the thesis and examination that he/she is the primary investigator of the research findings?”

(University of Limerick, 2011)

For this vital element of the PhD, I took on a leadership role at the start of this journey. As a consequence, I over achieved on the university requirement that stipulates that the student should be the main author on 50% of the published work. For my PhD by article submission, I am the main author on all papers.

One salient point from the overall experience has informed me that customer value improvement can take different journeys in many organisations. However, regardless of the complexity of the customer value improvement project or programme and the size of the organisation, there is a people engagement element and a technical element to customer value improvement. In order to optimise the results from customer value improvement, the researcher believes that it is of paramount importance that both the human element and technical component are dealt with comprehensively inside the continuous improvement programme. The Heavey et al (2011) and Heavey and Murphy (2012b) papers provided guidance for organisations and their leaders on how to develop this people engagement component. Both these papers provide detailed knowledge on trust, commitment, motivation, co-operation and performance. This knowledge will help to strengthen the effectiveness of the improvement activity.

Finally, the PhD has been a journey of discovery. It has given me the chance to develop new insights and skills in many areas of professional life. Consequently, my

vision for the future is to use this study as a platform to progress further learning and development.

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Appendix A: Article 1 - External Questionnaire

Please Tick One of the Boxes

Very Low	Low	Neither High or Low	High	Very High
----------	-----	---------------------	------	-----------

1. What is the importance of a co-operative environment to motivation in the workplace?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

2. What is the importance of a people centered environment to motivation in the workplace?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.3. What is the importance of ethical business practices at all levels to motivation in the workplace?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.4. What is the importance of consistent behaviour at all levels to motivation in the workplace?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.5. What is the importance of fairness in the workplace to motivation?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

To what extent do you agree with the following statements.

Strongly Dis Agree	Dis Agree	Neither Dis Agree or Agree	Agree	Strongly Agree
--------------------	-----------	----------------------------	-------	----------------

Q.6. Confidence in management credibility is vital to motivation in the workplace?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.7. Senior Management talking to employees increases motivation?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.8 Senior Management listening to employees increases motivation?

Q.9 Open communication within departments increases motivation?

Q.10 Open communication between departments increases motivation?

Q.10 Here two people are talking about work at their plant. Their remarks represent extremes on a scale. If you agree entirely with A mark next to "A." If you agree entirely with B, mark next to "B." If your views fall somewhere in between mark the appropriate position on the scale

A Says

In my job formal training does not impact at all my level of motivation. I learn on the job by doing it myself.

B Says

In my job formal training is a major motivational factor. With formal training I am 100% confident that I am working the way experts would do the task. Additionally, I feel the company is investing in my personal development.

	1	2	3	4	5	
Person A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Person B

Please tick one of the boxes to indicate your importance rating for the performance factors below.

Very Low	Low	Neither High or Low	High	Very High
-----------------	------------	----------------------------	-------------	------------------

Q.11. What is the importance of motivation in the workplace to performance?

Q.12. What is the importance of experience to performance?

Q.13. What is the importance of formal training to performance?

Q.14. What is the importance of aptitude to performance?

Q.15. Are there any other variables in your opinion that impact performance besides motivation, experience, aptitude and training? Y N

Q.16. If the answer to the above question is yes please list other performance variables below that you feel are important?

Every month Every 2 months Every 3 to 4 months Every 5 to 6 months Every 7 to 12 months

Q.17. How frequent does formal communication take place in the plant?

[Formal Communication refers to department or company meetings given by supervisors, Managers or Senior Mangers]

Q.18. How does the company promote a co-operative environment?

Q.19. How does the company promote fairness in the workplace?

Q.20. Does your company issue a periodic internal newsletter? Yes No

Q.21. Does the company provide training and development to further each employees professional advancement? Yes No

Q.22. How many years is the company operating in Ireland?

Q.23. What type of industry is your company involved in?

Q.24. What is the company country of origin?

Q.25. How many people are employed in the plant? <50 51-100 101-150 151-200 >200

Q.26. What is the average length of service of employees at the plant? <5 years 6-10 years 11-15 years 16-20 years >20 years

Q.27. Would you like to receive a copy of the summary report? Y N

Q.28. Do wish to give an e-mail address or forwarding address for the summary report?

Q.29. If you have any overall comments you would like to add please include below?

THANK YOU FOR YOUR TIME

Appendix B: Article 1- Internal Questionnaire

Good Morning/Day/Evening I am looking at the impact of trust and commitment in the company as part of my dissertation submit. Do you mind filling out the questionnaire it will take about 3 minutes to complete. I can assure you that the results based upon individual responses will remain confidential with no individual being identified.
Thank you

	Strongly Disagree	Disagree	Neither Agree Or Dis Agree	Agree	Strongly Agree
Q.1 Throughout the plant people care about each other in this company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.2 There is a family or team feeling in this company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.3 You can count on people to cooperate in this company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.4 Management do what they say they will do at all times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.5 Management actions are always aligned to company goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.6.The company is consistent in its treatment of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.7 The company is always ethical in its business practises?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q.8.People are always treated fairly in this company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Strongly Disagree	Disagree	Neither Agree Or Dis Agree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

Q.9 Top Management keep me informed about important issues and changes?

Q.10 I can ask management at any level any reasonable question and get a straight answer?

Q.11 I have the opportunity to do training to further myself personally?

Q.12. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful?

Q.13. I talk up this organisation to my friends as a great organisation to work for?

Q.14. I feel very little loyalty to this organisation?

Strongly Disagree	Disagree	Neither Agree Or Dis Agree	Agree	Strongly Agree
-------------------	----------	----------------------------	-------	----------------

Q.15. I find that my values and the organisation's values are very similar?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.16. I am proud to tell others that I am part of this organisation?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.17. I could just as well be working for a different organisation as long as the type of work was similar?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.18 This organisation really inspires the very best in me in the way of job performance?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.19 I am extremely glad that I chose this organisation to work for over others I was considering at the time I joined?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.20. There's not too much to be gained by sticking with this organisation indefinitely?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.21. Often, I find it difficult to agree with this organisations policies on important matters relating to its employees?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.22. I really care about the fate of this organisation?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q.24. Do you have any overall comments?

THANK YOU FOR YOUR TIME

Appendix C: Pre Interview Customer Value Improvement Questionnaire

1. Introduction

Thank you for your support in the interview process of this PhD study. I am currently doing a PhD at University of Limerick and as part of this study, I am doing research in the area of customer value improvement.

Can you complete this questionnaire in advance of the interview please?

1) This questionnaire is seeking your opinion on the importance of the components in Figure 1 for customer value improvement.

2) This questionnaire is looking to probe for missing components that you deem are required for customer value improvement.

The completed survey can relate to an organisation that you currently work in or a previous organisation that you worked in.

This survey is completely anonymous with no requirement to give an individual name or company name.

Note: Use of the word “Customer” in this study refers to both **internal** and **external** customers.

2. Framework Explanation

B) Component Explanation

Customer value focused co-leadership : This component deals with having leaders at all levels in the organisation with the same mind-set working together for internal and external customer value improvement.

Customer value focused strategic objectives : This component deals with the integration of customer (internal and external) value improvement into the strategic objectives.

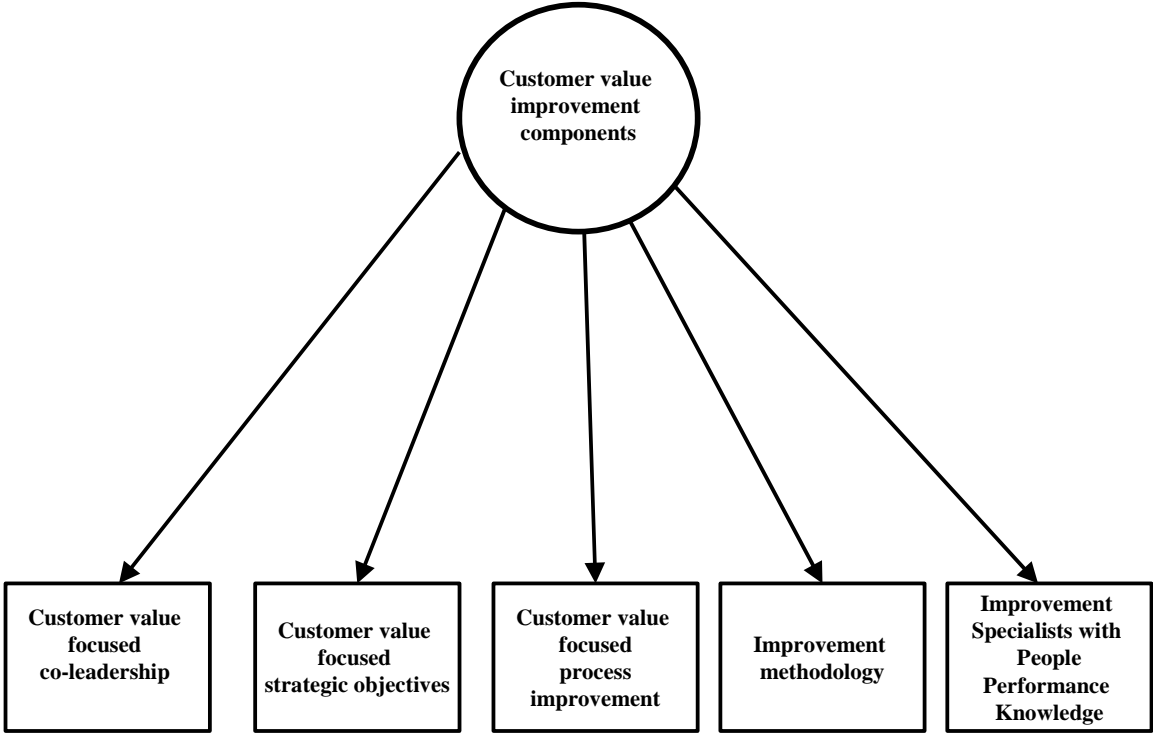
Process : This component deals with the organisational processes that enable the realisation of customer value through the transformation of inputs into outputs.

Improvement specialists with people performance knowledge: This component deals with improvement specialist with people performance knowledge that are competent in process improvement and in getting the most out of people. They may be full time improvement specialists or part time improvement specialists.

Improvement methodology : This component deals with improvement methodologies that are being used by the organisation to improve process customer value.. For example, the organisation

may use Six Sigma or lean. Also, the improvement methodology may also incorporate organisational specific improvement methodologies

Figure 1: Customer value improvement components



1. In relation to effective customer value improvement, are there any components missing from Figure 1? If yes, please list below?

2

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the customer value focused process component for driving customer value improvement.					

3

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the customer value focused co-leadership component for driving customer value improvement.					

4

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the customer value focused strategic objective component for driving customer value improvement.					

5

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the improvement methodology component for driving customer value improvement.					

6

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the improvement specialist with people performance knowledge component for driving customer value improvement.					

7

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective (See Figure 1) is the component combination of customer value focused process, customer value focused strategic objectives, customer value focused co-leadership, improvement specialist with people performance knowledge component and improvement methodology for driving customer value improvement.					

6. In your opinion, what knowledge and skill areas do organisational leaders require competency in today for process customer value improvement?

Answer:

7. In your opinion, what knowledge and skill areas do improvement specialists require competency in today for process customer value improvement?

Answer:

8 What country is the organisation located in?

Answer:

9 What industry is the organisation involved in?

Answer:

10. How many employees work in your organisation worldwide?
(select only one option)

- less than 10
- Between 10 and 20
- Between 21 and 50
- Between 51 and 100
- Between 101 and 250
- Between 251 and 500
- Between 501 and 1000
- Between 1001 and 10,000
- Greater than 10,001

11. For the organisation, that the survey relates to, what is (was) your role?

Answer

13. If you would like to receive a copy of the summary of this study please provide contact details below?

Answer

Appendix D: Customer Value Improvement Framework Company Questionnaire

1. Introduction

A) Introduction

Thank you for taking the time to complete this questionnaire. I am currently doing a PhD at University of Limerick and as part of this study, I am doing research in the area of customer value improvement. For this survey, I am seeking your opinion on the importance of the components in Figure 1 for process customer value improvement. I am also looking to establish your opinion on the effectiveness of the overall framework on Figure 1 for process customer value improvement and increased return on investment for organisations. The completed survey can relate to an organisation that you currently work in or a previous organisation that you worked in.

On completion of this study, I can forward a summary of the findings. This survey is completely anonymous with no requirement to give an individual name or company name.

Note: Use of the word “Customer” in this study refers to both **internal** and **external** customers.

2. Framework Explanation

B) Component Explanation

Customer value focused co-leadership : This component deals with having leaders at all levels in the organisation with the same mind-set working together for internal and external customer value improvement.

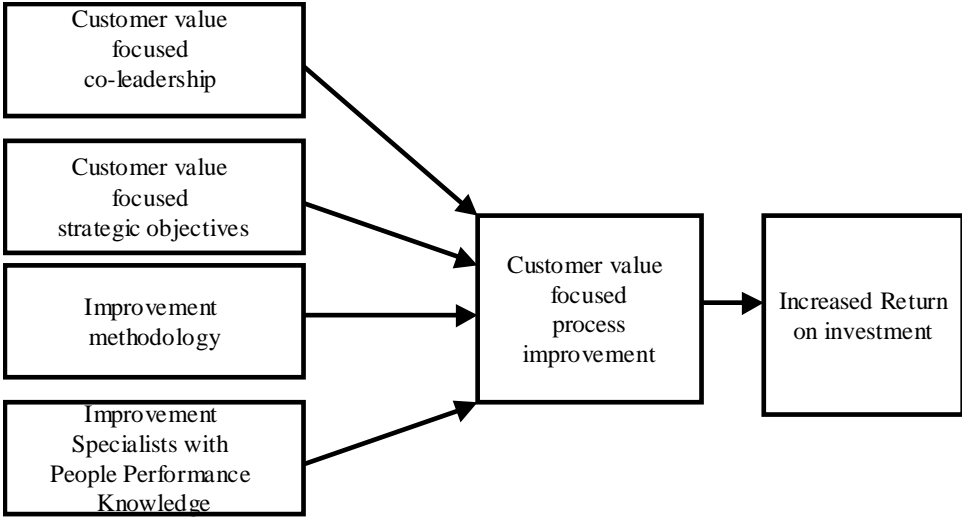
Customer value focused strategic objectives : This component deals with the integration of customer (internal and external) value improvement into the strategic objectives.

Process : This component deals with the organisational processes that enable the realisation of customer value through the transformation of inputs into outputs.

Improvement specialists with people performance knowledge: This component deals with improvement specialist with people performance knowledge that are competent in process improvement and in getting the most out of people. They may be full time improvement specialists or part time improvement specialists.

Improvement methodology : This component deals with improvement methodologies that are being used by the organisation to improve process customer value.. For example, the organisation may use Six Sigma or lean. Also, the improvement methodology may also incorporate organisational specific improvement methodologies

Figure 1: Customer value improvement framework



2. In relation to effective process customer value improvement, are there any components missing from the framework on Figure 1? If yes, please list below?

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1) are the component combination of customer focused co-leadership, customer focused strategic objectives, improvement methodology, improvement specialists for driving customer process improvement leading to increased organisational return-on-investment(ROI).					

3

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the customer focused co-leadership component for driving process customer value improvement organisational return-on-investment(ROI).					

4

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the customer focused strategic objective component for driving process customer value improvement organisational return-on-investment(ROI).					

5

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the improvement methodology component for driving process customer value improvement organisational return-on-investment(ROI).					

6

	Very Ineffective	Ineffective	Neither Effective or Ineffective	Effective	Very Effective
In your opinion, how effective(See Figure 1)is the improvement specialist with people performance knowledge component for driving process customer value improvement organisational return-on-investment(ROI).					

7 In your opinion, what knowledge and skill areas do organisational leaders require competency in today for process customer value improvement?

Answer:

8 In your opinion, what knowledge and skill areas do improvement specialists require competency in today for process customer value improvement?

Answer:

9 What country is the organisation located in?

Answer:

10 What industry is the organisation involved in?

Answer:

11. How many employees work in your organisation worldwide?

(select only one option)

- less than 10
- Between 10 and 20
- Between 21 and 50
- Between 51 and 100
- Between 101 and 250
- Between 251 and 500
- Between 501 and 1000
- Between 1001 and 10,000
- Greater than 10,001

12. For the organisation, that the survey relates to, what is (was) your role?

Answer

13. If you would like to receive a copy of the summary of this study please provide contact details below?

Answer

*Thank You for completing the questionnaire.
It is of great benefit to my research and it is very much appreciated*

Appendix E: Integrating the balanced scorecard with Six Sigma

Dear Mr Heavey,

A year ago your article 'Integrating the Balanced Scorecard with Six Sigma' was published in *The TQM Journal*. Since then this article has been downloaded **1057 times**.

Emerald is interested in understanding more about how you disseminate and share your article so that we can support you better in doing so. In order to help us do this we would really appreciate it if you would take our [short 10-minute survey](#).

If you would like some advice on disseminating your article more widely, please read our [How to... disseminate your work](#) guide, or check out some of our other [How to... guides](#) on sharing and disseminating your research work.

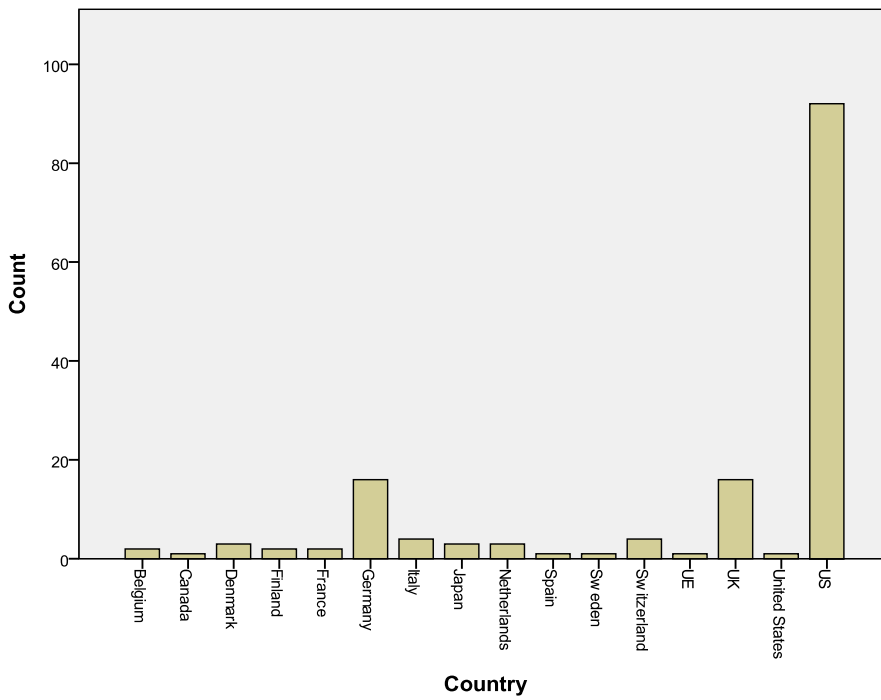
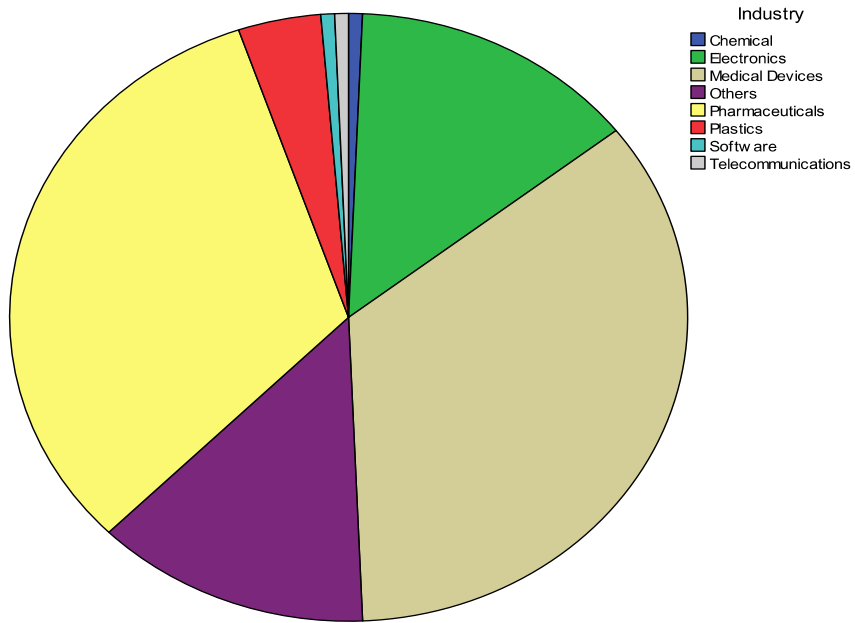
I'd like to thank you in advance for your help with the survey and I hope you find the above guides useful. If you have any feedback on the guides, or on your experiences with Emerald, please do contact us by replying directly to this message.

Kind regards,
Emma

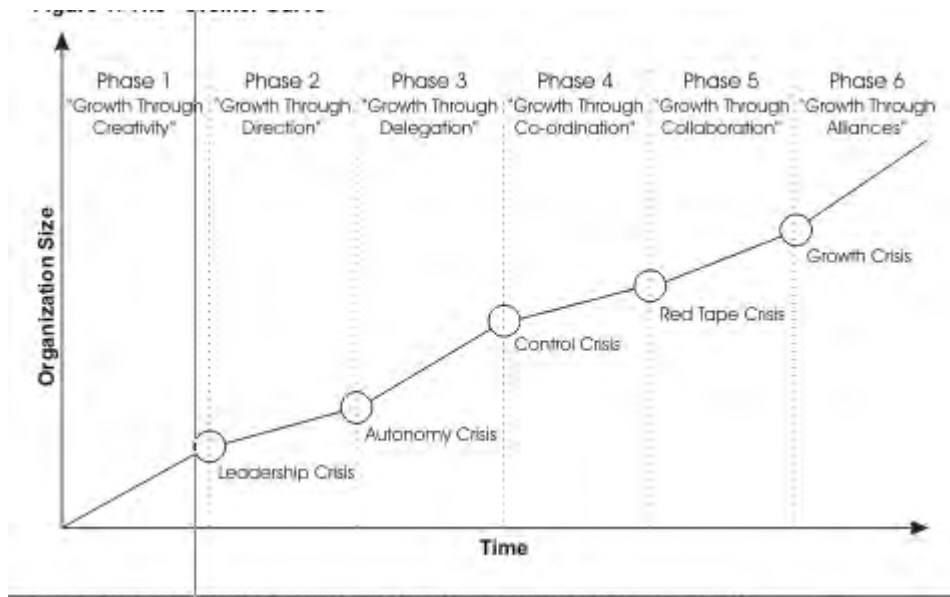
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Appendix F: 152 Company Survey Demographics



Appendix G: Greiner's Model



Source: http://www.mindtools.com/pages/article/newLDR_87.htm

Appendix H: Paper Four Status

a.douglas@ljmu.ac.uk via manuscriptcentral.com 20 Aug (8 days ago) ☆ ↶ ▾

to me, ann.ledwith, Eamonn.Murphy ▾

Dear Mr. Heavey,

I am pleased to inform you that your manuscript entitled "Introducing a new continuous improvement framework for increased organisational return on investment" which you submitted to The TQM Journal, has been accepted for publication.

I am inviting you to make final changes to your paper.

Please note that proofs are not supplied prior to publication and the final manuscript will be considered to be the definitive version of the article. It is the author's responsibility to ensure that it is complete, grammatically correct and without spelling or typographical errors.

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You will be unable to make your revisions on the original submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it onto your computer.

Once the revised manuscript is prepared, you can upload it and submit it through your Author Centre.

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