Author(s): Sheena Wood

Title: A performance measurement tool for improving customer satisfaction with a local government framework: A case study of Cheshire County Council, Engineering Service

Date: June 2006

Originally published as: University of Chester MBA dissertation


Version of item: Submitted version

Available at: http://hdl.handle.net/10034/91246
A PERFORMANCE MEASUREMENT TOOL FOR IMPROVING CUSTOMER SATISFACTION, WITHIN A LOCAL GOVERNMENT FRAMEWORK:

A CASE STUDY OF CHERSHIRE COUNTY COUNCIL, ENGINEERING SERVICE

SHEENA WOOD

A dissertation submitted in partial fulfillment of the requirements of the University of Chester for the degree of Master of Business Administration

CHESTER BUSINESS SCHOOL

JUNE 2006
Acknowledgements

I would like to offer my thanks to my husband John and son Graham, for being so patient and understanding and giving me the time, support and space to work. I would also like to thank my father Tony Massey and my late mother Bernice Massey, for giving me the inspiration to better myself. Finally I would like to thank my tutor Paul Webb and colleagues at work, who have supported and encouraged me to reach my goal.

Sheena Wood
Abstract

The dissertation describes the research undertaken and presents findings from a review of approaches, in order to measure and understand what factors contribute to either achieving or inhibiting customer satisfaction within Cheshire County Council, Engineering Service.

The aim of the research is to establish a performance measurement tool for addressing and improving customer satisfaction levels. This will be carried out by conducting a balanced appraisal within a regional engineering service environment, in order to assemble the required data for enhancing current practices and to meet the challenge of continuous improvement of performance for CES.

The dissertation describes the methods utilised in order to achieve these objectives by:

- Reviewing relevant literature associated with organisational performance and customer satisfaction. This will inform and provide the framework for the research.

- Defining the methodology adopted to undertake the research in terms of the philosophical stance, approach, strategy and methods of data collection utilised.

- Reporting the findings of the research, demonstrating how they were arrived at through analysis of the collected data and by testing this against relevant theory.

Qualitative methods have been adopted for the purpose of this case study.

It is anticipated that this case study will enable the Service to contribute to improving the overall moderate three star status achieved by the County Council at it’s latest comprehensive performance assessment in accordance with the government’s customer focused modernising agenda.

The research question and aims that are being investigated for the purpose of this study are:

What type of Performance Measurement Tool should be used for improving customer Satisfaction, within a Local Government Framework?
➢ To analyse the current performance measurement tools, within an ES environment.

➢ To provide a balanced appraisal for evaluating customer satisfaction through performance management within an Engineering environment.

➢ To identify the gaps between levels of customer satisfaction and perceived performance by analysing the results of aims 1 and 2 and making recommendations for improvement.

Outcome

To establish what changes are required to be taken by Engineering Service to ensure customer satisfaction and to meet the challenge of continuous improvement in performance.

In order to answer the research question and to achieve the research aims, a phenomenological philosophy is adopted, using a case study strategy and an inductive approach. The data collection methodology has been identified based on the findings of an internal focus group established to review customer satisfaction. The parameters of detailed research methodology are extended to four regional authorities in addition to Cheshire in order to demonstrate a balanced and authoritative outcome.
Declaration – I declare that this work is my own and all references to any previous work, whether my own or by other authors is fully referenced.

This work is original and has not been submitted previously for any academic purpose. All secondary sources are acknowledged.

Signed:

Date:
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>2</td>
</tr>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>Declaration</td>
<td>5</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>6</td>
</tr>
<tr>
<td>Table of Tables</td>
<td>12</td>
</tr>
<tr>
<td>Table of Charts</td>
<td>13</td>
</tr>
<tr>
<td>Table of Figures</td>
<td>14</td>
</tr>
<tr>
<td>1.0 Introduction</td>
<td>15</td>
</tr>
<tr>
<td>1.1  Research Background</td>
<td>15</td>
</tr>
<tr>
<td>1.2  Research Question</td>
<td>16</td>
</tr>
<tr>
<td>1.2.1 Research Aims</td>
<td>16</td>
</tr>
<tr>
<td>1.3  Justification of the Research</td>
<td>17</td>
</tr>
<tr>
<td>1.4  Methodology</td>
<td>18</td>
</tr>
<tr>
<td>1.4.1 Selected Primary Data</td>
<td>18</td>
</tr>
<tr>
<td>1.4.2 Questionnaire Design</td>
<td>18</td>
</tr>
<tr>
<td>1.4.2.1 Secondary Data</td>
<td>18</td>
</tr>
<tr>
<td>1.5  Outline of chapter one</td>
<td>19</td>
</tr>
<tr>
<td>1.5.1 Chapter 1 - Introduction</td>
<td>19</td>
</tr>
<tr>
<td>1.5.2 Terms of reference</td>
<td>19</td>
</tr>
<tr>
<td>1.6  Definitions</td>
<td>20</td>
</tr>
<tr>
<td>1.7  Summary</td>
<td>21</td>
</tr>
</tbody>
</table>
2.0 Chapter 2 - Literature Review ................................................................. 22
2.1 Introduction ......................................................................................... 22
2.1.1 Background ................................................................................... 22
2.2 Performance Measurement Frameworks ........................................... 25
2.2.1 Performance Measures and Objectives ......................................... 25
2.3 The Service Plan ................................................................................ 26
2.4 The Performance Management Structure ........................................ 26
2.4.1 The Internal Performance Management Chain ......................... 27
2.5 Service Delivery ................................................................................ 28
2.6 The Vision and Values Statement and its Relevance to ............... 29
Performance Measurement ................................................................. 29
2.7 The Balanced Score Card .................................................................. 32
2.8 External Benchmarking ................................................................. 33
2.9 Stakeholder Analysis within Engineering Service ...................... 35
2.10 Communications Strategy ............................................................. 36
2.11 Customer Relationship Management ............................................ 37
2.11.1 CRM Through Information Technology .................................. 38
2.11.2 LACRM (Local Authority Customer Relationship Management System) ................................................................. 38
2.12 Performance Measurement Software within Engineering Service .... 39
2.12.1 SBS Confirm ............................................................................. 39
2.12.2 Excelsis CRM Software ............................................................. 40
2.12.3 CRM Touch Points ..................................................................... 40
2.13 The Value Chain ............................................................................. 41
2.14 Gap Analysis ................................................................................... 42
2.15 Conceptual Model ........................................................................... 44
2.16 Summary ......................................................................................... 45
3.0 Chapter 3 - Methodology .......................................................................................... 46

3.1 Introduction .............................................................................................................. 46

3.2 Research Philosophy .............................................................................................. 46

3.3 Research Approach ................................................................................................. 47

3.4 Research Strategy ................................................................................................... 48

3.4.1 Experimental and Survey Research Strategy .................................................... 48

3.4.2 Grounded Theory Strategy ................................................................................. 49

3.4.3 An Ethnographic Strategy and Action Research .............................................. 49

3.4.4 Justification of Research Strategy ..................................................................... 49

3.5 Research Methods .................................................................................................. 50

3.5.1 Data Collection, Preparation and Analysis...................................................... 50

3.5.1.1 Quantitative Methods .................................................................................. 50

3.5.1.2 Qualitative Methods .................................................................................. 51

3.6 Focus Groups .......................................................................................................... 52

3.7 Questionnaire .......................................................................................................... 53

3.7.1 Results from Initial Research .......................................................................... 53

3.8 Semi-Structured Interviews .................................................................................... 54

3.9 Secondary Data ....................................................................................................... 56

3.10 Triangulation .......................................................................................................... 56

3.11 Ethical Issues .......................................................................................................... 57

3.12 Time Horizons ....................................................................................................... 57

3.13 Analysis of Data ..................................................................................................... 57

3.13.1 Data Analysis Process ..................................................................................... 58

3.14 Summary .................................................................................................................. 58
5.3 Conclusions about the Research (Aims) .................................................. 87

5.4 Conclusions about the Research Question ............................................. 88

5.4.1 Strategic Issues ................................................................. 88

5.5 Conceptual Model ................................................................................. 89

5.5.1 Conceptual Model Gap One ............................................................ 89

5.5.2 Conceptual Model Gap Two ............................................................. 91

5.5.2.1 Performance Measurement Processes ........................................... 92

5.5.2.2 Customer Survey Processes .......................................................... 93

5.5.3 Conceptual Model Gap Three .......................................................... 94

5.5.3.1 Alignment of Streamlined Technology .......................................... 96

5.5.4 Conceptual Model Gap Four ............................................................. 97

5.5.5 Conceptual Model Gap Five ............................................................. 98

5.5.6 Conceptual Model Gap Six .............................................................. 99

5.5.7 Conceptual Model Gap Seven .......................................................... 100

5.5.8 Conclusions about the Research Problem ......................................... 102

5.5.9 Performance Management Framework ............................................. 104

5.6 Limitations of the Study ....................................................................... 105

5.7 Opportunities for further Research ...................................................... 105

6.0 Recommendations ................................................................................ 107

6.1 Implementation Plan ............................................................................ 107

7.0 Bibliography .......................................................................................... 109

Appendices ................................................................................................ 119

Appendix 7.1 Engineering Service Vision Statement ...................................... 119

Appendix 7.2 Stakeholder Matrix ................................................................. 120

Appendix 7.3 Stakeholder Analysis ............................................................... 121

Appendix 7.4 Swot Analysis ......................................................................... 122
<p>| Appendix 7.5 | Questionnaire ............................................................................. 123 |
| Appendix 7.6 | Questionnaire Covering Memo .................................................... 124 |</p>
<table>
<thead>
<tr>
<th>Table 1:</th>
<th>Table of Definitions</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2:</td>
<td>The Functions of Engineering Service</td>
<td>24</td>
</tr>
<tr>
<td>Table 3:</td>
<td>Seven Best Practices for making Visions and Values Work</td>
<td>31</td>
</tr>
<tr>
<td>Table 4:</td>
<td>An Assessment of External Benchmarking Activities</td>
<td>34</td>
</tr>
<tr>
<td>Table 5:</td>
<td>Questionnaire data analysis part one (Customer Satisfaction) and part two (Performance)</td>
<td>62</td>
</tr>
<tr>
<td>Table 6:</td>
<td>Current ES Best Value Performance Indicators and Local Transport Plan Targets</td>
<td>80</td>
</tr>
</tbody>
</table>
## TABLE OF CHARTS

<table>
<thead>
<tr>
<th>Chart</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improvement to the Image Projected by ES to Customers</td>
<td>63</td>
</tr>
<tr>
<td>2</td>
<td>The Opinion Variable between Managing Customer Expectations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>through Communication Mechanisms</td>
<td>66</td>
</tr>
<tr>
<td>3a</td>
<td>Customer Relationship Management</td>
<td>68</td>
</tr>
<tr>
<td>3b</td>
<td>Customer Relationship Management</td>
<td>68</td>
</tr>
<tr>
<td>4</td>
<td>Opinion of Critical Factors for Improvement of Service Planning</td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>Performance Culture</td>
<td>71</td>
</tr>
<tr>
<td>6</td>
<td>A Performance Measurement Tool for Measuring Customer Satisfaction</td>
<td>72</td>
</tr>
<tr>
<td>7</td>
<td>Highways Survey</td>
<td>82</td>
</tr>
<tr>
<td>8</td>
<td>Quality of Life Survey</td>
<td>82</td>
</tr>
</tbody>
</table>
TABLE OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Measure Up! Yardsticks for Continuous Improvement</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>Corporate Plan, Cheshire County Council</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>The Balanced Score Card</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>Stakeholder Typology</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>SBS Confirm Customer Service Dashboard</td>
<td>39</td>
</tr>
<tr>
<td>6</td>
<td>The Value System</td>
<td>41</td>
</tr>
<tr>
<td>7</td>
<td>Gap Analysis</td>
<td>42</td>
</tr>
<tr>
<td>8</td>
<td>A Conceptual Model for Addressing the Gaps Between Performance Measurement and Customer Satisfaction</td>
<td>44</td>
</tr>
<tr>
<td>9</td>
<td>Categories for Measuring Customer Satisfaction within a Local Authority Performance Management Framework</td>
<td>74</td>
</tr>
</tbody>
</table>
1.0 Introduction

1.1 Research Background

The Engineering Service, which forms part of the Environment Directorate within Cheshire County Council, is responsible for all aspects of the management of 3,000 miles of roads in Cheshire. The Service has recently undergone re-structuring through a change management process and is segmented geographically into three functional localities, including East, Central and West Cheshire. The functions of the service vary from maintenance operations, including management of the term contract to construction and design. This structure requires the implementation of efficient procurement and management of resources, within economic and regulatory constraints to facilitate the smooth running of the Highway infrastructure, Cheshire County Council, Service Plan (2005).

The drivers for this research have arisen in response to a number of perceived weaknesses in service delivery identified from various sources. This has been necessitated in response to a recent directive from the Government’s Strategy for Public Services. The brief is to reform Service focus as a mechanism to increase the level of involvement of local people and to meet their needs and aspirations as part of the modernisation agenda. It is proposed that this process will facilitate a better understanding of what makes customers satisfied and how this can be measured. Additionally, reporting of outcomes of the CPA will give greater clarity of purpose to local people regarding the Service’s progress towards reform, and demonstrate that consultation will be the key element in measuring satisfaction in relation to meeting user needs, Audit Commission (2004).

In this context, it is critical that the service addresses areas of poor performance recently highlighted by the Audit Commission, external consultants, Deloitte and Touché and County Councilors for improving its customer focus.
1.2 The Research Question

The dissertation summarises what the researcher has done in order to address customer satisfaction and the approach undertaken in order to fulfill the requirements of the question and its aims. A critical literature review has been carried out which details and justifies analysis and commentary in conjunction with comparative data from other regional statutory providers for meeting customer expectations and creating an appropriate performance measurement tool that can be implemented within Cheshire Engineering Service to facilitate this. It sets out the findings of the research project prior to drawing the project report to a conclusion. An action plan is dedicated to the implementation of the recommendations.

1.2.1 Research aims

➢ To analyse the current performance measurement tools, within an Engineering Service environment.

➢ To provide a balanced appraisal for evaluating customer satisfaction through performance management within an Engineering environment.

➢ To determine the gaps between levels of customer satisfaction, and perceived performance by analysing the results of aims one and two and making recommendations for improvement.

This will be achieved by carrying out the research locally and regionally and drawing up a comparability study between local authorities who provide the same engineering service and how they manage their interface with customers.
1.3 Justification for the Research

My role within Cheshire County Council Engineering Service is Service Improvement Officer.

I am charged with assessing and compiling information for inclusion within the Service Plan, Cheshire County Council, (2006). The content of the plan draws heavily on both work undertaken for the Council’s Local Transport Plan and service improvements being developed through the Service’s change management agenda. This comprises of key best value performance indicators, local performance indicators (that are also included within the Local Transport Plan) and proxy indicators for critical analysis against quarter, mid year, three quarter year and outturn targets. These are measured against best value performance indicator criteria. Additionally I am responsible for the development and maintenance of performance management systems across the Service to facilitate monitoring of performance measurement.

This information is crucial to the implementation of the performance management framework for Engineering Service. It is used as a critical benchmark for the three yearly submission, to fulfill the requirements of the overall comprehensive performance assessment which will contribute to the rating of Cheshire County Council following the Audit Commission inspections.

There is a pressing need for practitioners to adopt a viable analytical measuring tool in order to optimise resources for measuring customer satisfaction in the public sector, Busacca & Pudula, (2005) An abundance of ICT based performance measuring systems are currently utilised by Cheshire County Council to address customer related issues and adherence to monitoring of progress. A more consistent approach for measuring and monitoring service performance is required in order to achieve and underpin more responsive delivery to improve customer satisfaction.

- 17 -
1.4 Methodology

Semi-structured interviews will be conducted with key officers, who were present at an in-house focus group, within CCC ES and from the corporate centre which will enable the researcher to analyse data based on in depth analysis as well as providing the freedom if necessary to amend the remit of the questionnaire to enhance its reflectivity and benefit the inquiry, Gummerson, (2000). There will also be a number of key officers interviewed from other Unitary and County Councils, for the purpose of balancing a comparability of the research.

1.4.1 Selected Primary Data

A questionnaire has been chosen as the primary data collection method for this research, in order to capture and elicit rich, qualitative data. However, as Eldabi & Irani et al (2002) theory suggests that the strength of an organisations perception can be appreciated by the level and intensity of feelings amongst its members. Therefore it will also be appropriate to use quantitative data for this purpose, to be included within the questionnaires. These will be distributed electronically.

1.4.2 Questionnaire Design

Feedback sheets from a recent service plan focus group, will be used to inform the design of the questionnaire in order to capture and elicit rich, qualitative data. The open ended questions have been categorised in order to compare the results with secondary data.

1.4.2.1 Secondary Data

Secondary data will be contained within the Highways Survey and quality of life survey, this will assist with triangulation of data. Synodinos, (2003).
1.5 Outline of Chapter One

The chapter introduces the aims and objectives of the research and the specific question that it will answer. It describes the context within which the research is undertaken and specifically focuses on Cheshire County Council, Engineering Service. It continues by discussing the outline and content of the following chapters within the dissertation prior to concluding with a summary of key issues.

Chapter 1

1.5.1 Introduction
This chapter will outline the dissertation report and present the general focus question:

*What type of Performance Measurement Tool should be used for improving customer Satisfaction, within a Local Government Framework?*

1.5.2 Terms of Reference
The research question will be answered through:

- **Chapter 2** will provide a review of literature within the context of, and to form a framework for analysing and characterising the current performance measurement tools and their relevance to measuring levels of customer satisfaction, this will be related back to relevant theory.

- **Chapter 3** will identify research methods used to collate data to meet recent aims and objectives and to discuss any limitations and ethical issues. A data gathering exercise will be deployed internally to evaluate what the current perception of performance and determine what impact this has on the customer expectations of ES.

- **Chapter 4** will endeavour to describe how the methodology was applied and demonstrate data analysis. The findings will be presented clearly with supporting evidence
• **Chapter 5** will fully detail the findings from chapter four and critically evaluate the chosen methodologies. It will discuss the links between theory, the research findings and any prior research and knowledge from the literature review in chapter two and draw on conclusions relating to the initial research question.

• **Chapter 6** will culminate in the development of an action plan in order to make recommendations on how Engineering Service can manage any required changes in order to improve levels of customer satisfaction.

1.6 Definitions

"*Satisfaction depends on the users/customers’ perceptions that a product or service will meet or exceed their needs or expectations*," Plunkett, Attner & Allen (2002).

<table>
<thead>
<tr>
<th>Table 1: Table of Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audit Commission</strong></td>
</tr>
<tr>
<td><strong>Best Value</strong></td>
</tr>
<tr>
<td><strong>CCT</strong></td>
</tr>
<tr>
<td><strong>CPA</strong></td>
</tr>
<tr>
<td><strong>Customer Satisfaction</strong></td>
</tr>
<tr>
<td><strong>ES</strong></td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td><strong>E-Government</strong></td>
</tr>
<tr>
<td><strong>Governance</strong></td>
</tr>
<tr>
<td><strong>Highways Survey</strong></td>
</tr>
<tr>
<td><strong>LPSA</strong></td>
</tr>
<tr>
<td><strong>LTP</strong></td>
</tr>
<tr>
<td><strong>ODPM</strong></td>
</tr>
</tbody>
</table>

1.7 Summary

This chapter will provide the reader with an understanding of the research problem, and question how the researcher intends to resolve it. Justification for the research has been detailed and research methods briefly outlined. The dissertation will continue as per the outline.
2.0 Chapter 2 - Literature Review

2.1 Introduction

The chapter presents a review of the relevant literature of organisation performance measurement and its relationship to achieving customer satisfaction. This chapter will aim to provide a summary of the theoretical background knowledge and explore research models that will ultimately inform the compilation of an appropriate research instrument.

2.1.1 Background

There are many sources of literature that identify how to achieve customer satisfaction. This chapter is intended to summarise the key relevant literature in order to conceptualise the research into how Cheshire County Council, Engineering Service can improve customer satisfaction through an appropriate performance measurement tool. The core service objectives of Engineering Service are to:

- Promote Accessibility;
- Improve Safety;
- Improve the condition of roads in Cheshire;
- Promote transport integration;
- Contribute to an efficient economy; promoting livability and protecting the environment. Cheshire County Council (2005).

The Minister for Local Government and Housing (for England) introduced new legislation relating to compulsory competitive tendering in 1999. This states:

"The requirement for local authorities to deliver the quality of service that local people expect at a price that they are willing to pay for customer satisfaction", Handy (1999).

Similarly the DETR (1999) comments that it is the Government's intention to ensure that Local authorities are at the centre of the public service locally and that they must lead communities for gaining greater customer satisfaction.

- 22 -
In 2005 the Audit Commission carried out its comprehensive performance assessment inspection of Engineering Service, in accordance with best value review criteria. The report stated that although the Service was adequately improving and had attained a moderate 3 star rating\(^1\), one of the recommendations was to:

"Demonstrate greater emphasis of partnership working and value for money. Each Service, therefore can play a significant part in the approach a Council takes to deal with its customers". Audit Commission (2005).

These comments were reflected in an earlier CPA report, which was conducted three years ago and also stated that:

"Engineering Service should communicate clearly with the public about how it intends to improve the road network over the next five years and consult local people about the choices made, to improve customer satisfaction", Audit Commission (2003).

These recommendations have been reinforced by a report containing Council Members' views. County Council Members recorded their dissatisfaction with Engineering Service in respect of the findings of the Best Value Review by identifying its disclosure of a non-customer focused culture, service delivery and performance, Cheshire County Council (2004).

Tony Blair, (2005) recently set out a strategy for continuous improvement in Public Services in simple terms by stating that:

"Local Government must give more power to the people through greater choice, greater voice and more personalised services to achieve better customer satisfaction". Additionally, it is proposed that measuring performance in Local authorities should be radically reformed to address an undesired oversubscribed measurement culture and introduce greater autonomy for the "front line" of public services.

\(^1\) Cheshire County Council attained a 4 star rating and was classed as an excellent local authority, during the last CPA inspections, which were carried out in 2003.
The Prime Minister also claims that the public want:

"The consumer power of the private sector, but the values of the public service".

These statements together with the results of a recent public Highways survey have exposed evidence of poor customer satisfaction relating to the condition of roads in Cheshire. This will act as a mechanism to address the relationship between customer satisfaction and performance measurement within Engineering Service. The following table outlines the structure and functions of the service.

**Table 2: The Functions of Engineering Service, source: Cheshire Engineering Service (2005)**

<table>
<thead>
<tr>
<th>Function</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management of the Network</strong>&lt;br&gt;(Maintenance Operations)</td>
<td>- Responsible for management of the network, use and occupancy.</td>
</tr>
<tr>
<td></td>
<td>- Programme management for the Service.</td>
</tr>
<tr>
<td></td>
<td>- Design and maintenance of Street Lighting.</td>
</tr>
<tr>
<td></td>
<td>- Design and maintenance of Traffic Signals, including UTC/VMS monitoring.</td>
</tr>
<tr>
<td></td>
<td>- Overall management of the Term Contract.</td>
</tr>
<tr>
<td></td>
<td>- Winter Maintenance.</td>
</tr>
<tr>
<td><strong>Asset Management and Development of Strategy.</strong></td>
<td>- Development of transport strategies for network improvement.</td>
</tr>
<tr>
<td></td>
<td>- BV Action Plan delivery.</td>
</tr>
<tr>
<td></td>
<td>- Asset Management Plan.</td>
</tr>
<tr>
<td></td>
<td>- Development of standards</td>
</tr>
<tr>
<td></td>
<td>- Ensure best practice in process and project management</td>
</tr>
<tr>
<td></td>
<td>- Road Safety</td>
</tr>
<tr>
<td></td>
<td>- Accident investigation and prevention.</td>
</tr>
<tr>
<td></td>
<td>- Risk management.</td>
</tr>
<tr>
<td></td>
<td>- Control of development (policies and assessing strategic sites).</td>
</tr>
<tr>
<td><strong>Technical Provision and Guidance</strong>&lt;br&gt;(Construction)</td>
<td>- Design and construction of major and certain minor projects.</td>
</tr>
<tr>
<td></td>
<td>- Design and construction of maintenance and improvement schemes above the threshold.</td>
</tr>
<tr>
<td></td>
<td>- Design and construction of bridgeworks and structures.</td>
</tr>
<tr>
<td></td>
<td>- Maintenance of bridges and structures.</td>
</tr>
<tr>
<td></td>
<td>- Maintenance of bridges and structures.</td>
</tr>
<tr>
<td></td>
<td>- Ground investigation and material.</td>
</tr>
</tbody>
</table>
| **Communication and Business Support** | - MTS Co-ordination  
- Service Plan  
- Knowledge Management (Library record and co-ordination of the Document management system.  
- Resource and Financial Management  
- Performance management  
- Business Support  
- IT Support  
- Communications Strategy  
- Corporate and Development Liaison  
- Staffing issues and development |

### 2.2 Performance Measurement Frameworks

#### 2.2.1 Performance Measures and Objectives.

Performance measurement review attained a high profile in the 1980’s. The primary reason for this was:

- Pressure from Central Government and the Audit Commission
- Greater public expectation and consumerism, Ghobadian and Ashworth, (1994).

The task of measuring performance of service organisations is complex and difficult; this according to Jackson, (1999) is because output to customers is frequently intangible, heterogeneous and ill defined. This is pertinent within ES, as a consequence of the volume of local performance measures applied to the Service. It will be critical for the authority as a whole to ensure that performance is consistent with performance of other authorities who are positioned within the top 25% of the (upper quartile), and demonstrate a level of 2% overall improvement of efficiency per annum, Audit Commission (2004).
2.3 The Service Plan

A service action plan has been written to present a snap shot comparison of achieved results, measured against performance targets. Although Bolton (2003), questions the reliability of whether some performance measurement targets are achievable. This is relevant to the CCC Engineering Service Plan, which has been compiled using data from a series of local performance measures. These have emerged as a consequence of an unstructured, ambitious internal focus group, creating an overambitious service plan, based on internal perceptions, containing performance measures that cannot feasibly be measured within ES. Kaplan and Norton (1996) pertinently comment that: "if you can't measure it, you can't manage it".

The Service Action Plan has been utilised as a measuring tool in order to capture time series data, by means of internal surveys. Although Wisniewski, (2001), argues that this mechanism does not allow for triangulation of "hard" measures against "soft" customer/employee satisfaction measures, and purports that this does not provide an accurate tool for distinguishing between "reality" and "perception". Additionally this mechanism does not necessarily capture the "voice of the customer". Similarly, Donnelly and Shiu (1999) comment that the limitation of internal market research is very much focused on satisfaction with service delivery of existing services, rather than identifying customers' needs and whether they are being met. If they are not being met, what steps might the authority take to fulfill them?

2.4 The Performance Management Structure

The current performance management structure is demonstrated within figure 1, the Performance Pyramid, adapted from Lynch and Cross (1991). They recommend the performance pyramid as a model to demonstrate how the different levels of information flow up and down the performance monitoring chain. They make the normative proposal that this model will accommodate both horizontal and vertical relationships, in addition to providing flexibility to achieve customer satisfaction. Although Brignall and Modell, (2000) argue that this model is not always as linear as it may seem. It can sometimes
cause a confusing array of interactions and interdependencies that fail to capture the unintended consequences that performance improvement initiatives may encounter. Ittner and Larcker, (1998) also debate the merits of using this tool in order to assist with measuring customer satisfaction. They insist that there is no evidence to suggest that customer satisfaction is a recognised leading performance indicator and that there is modest support within organisations to consider customer satisfaction as a key attribute to performance measurement.

**Figure 1**: "Measure up! Yardsticks for Continuous Improvement", Source: Lynch, R.L., and Cross K.F. (1991), Blackwell, London.

2.4.1 The Internal Performance Chain

According to Heskett *et al*, (1994), in order to deliver service quality and performance to the external customer, it is well recognised that the internal customer service must also be of the right quality within the organisational service chain and the inter-connection of activities across the whole organisation that deliver the service to the final customer. Although Gaster and Squires (2003) claim that measurement of services and their performance cannot improve, unless it has been accepted and welcomed within a strong performance culture that extends throughout the structure of an organisation. However, Marshall *et al*, (1998) argue that every structure is only as strong as its weakest link and the service to the external customer may be compromised if customer service is not delivered on a consistent basis. This is pertinent within ES, due to recent restructuring
and change management processes, which has engendered confusion amongst its members and created a duplication of management practices which are prejudicial to effective and consistent service delivery.

2.5 Service Delivery

Expectations of public service organisations have changed. The public increasingly expects its services to demonstrate accountability in order to justify the efficient use of public funds. This can be demonstrated by the production of performance methodologies, Bolton, (2003). Although appropriately, Amaratunga, Baldry and Sarshar, (2001) emphasise the importance of treating performance measures with caution, by not just be celebrating successes of service delivery, but by determining the causality of bad service delivery through poor performance. It is essential that these performance objectives, priorities and expectations can be clearly articulated not just for internal use, but to externalcustomers and stakeholders in order to present a better understanding of how performance is achieved and to evaluate future requirements for improvement, Halachmi (2002).

Figure two demonstrates the central corporate function that is described as the "golden thread", within Cheshire County Council's corporate plan, and how each Service must conform to achieving national and local objectives, that are driven by the corporate centre. However, there is no consistent approach for the implementation of all aspects of this plan at a local Service level or meaningful relevance presented to external customers.

Figure 2: Corporate Plan – Source: Cheshire County Council (2005/06)
2.6 Vision and Values Statement and its relevance to Service Performance Measurement

Hill, Brierley and MacDoughall (1999) recommend that in order to identify things that are important to customers and to measure the degree by which they are satisfied, it is useful to make an internal assessment. This should pinpoint areas of weakness within the organisation that are causing resistance to the performance and creating a shortfall in customer perception by compiling a vision statement that articulates the right message. Although Kaplan and Norton (2004) argue that inspirational mission and vision statements are good in theory for declaring goals, but in practice this must become part of reality by focusing employees on satisfying customers through performance. In this context they recommend that in order to facilitate the process, it is of paramount importance to capture the feelings of employees internally, utilising an internal focus group. This will assist with identifying perceptual gaps in performance. Hill and Alexander (2000) continue this debate, by highlighting the possible problem with managers of the organisation who don’t have an accurate understanding of customer’s needs and priorities. This is recognised within Engineering Service and has been recently addressed through a vision and values focus group workshop in order to challenge the process of improving customer satisfaction.

As a result of this workshop, internal strengths and weaknesses have been identified on how customer satisfaction should be addressed, although there is no evidence of how this message is articulated or reflective of the interests of external customers, through the corporate plan, (figure 1 refers), or within the current Engineering Service vision statement, (Appendix 7.1 refers). Additionally, recent comments from the DfT at a Highways and Transportation committee meeting, Cheshire County Council (2006), have stipulated that the new provisional Local Transport Plan will require:

"Development of a strong local vision, in particular to address changes in demographics, and building better relationships with the public".
The current Cheshire Partnership’s corporate Vision is articulated within a broad statement for embracing customer satisfaction by stating that:

“We want Cheshire to be a place where everyone can thrive at work and play, at home and in the community, in a safe and healthy environment, take an active part in decisions, and continue to develop throughout their lives”, Cheshire County Council (2006).

Additionally cross cutting issues are emphasised within the latest corporate vision initiative, “Transforming Cheshire”, Cheshire County Council, (2006). It is designed to refocus services to engage and meet the growing demand of fulfilling customer expectations throughout periods of change within the County Council. The process is aimed at creating a better organisational culture and states that it is:

- Community focused.
- Puts customers first.
- Values staff.
- Uses effective processes and
- Manages resources well.

Detert, Schroeder, and Mauriel (2000), consider the relevance of this softer topic and purport that a vision statement should be recognised as a tangible method for providing a performance measurement tool, by incentivising staff satisfaction. This in turn will demonstrate Service expectations of performance and values to external customers that will ultimately improve the overall perceptions of the Service.

Appropriately, Neeley, Austin and Walters (2002) propose seven best practices for making the vision and values statement work, in order to measure performance against customer expectations. They recommend that this will be more effective if the seven best practices, listed within table three, are incorporated within service and business plans. This would be an appropriate methodology for inclusion within the ES service plan, as a communications strategy/ action plan framework. Although there is only currently a

<table>
<thead>
<tr>
<th>Best Practice Steps</th>
<th>Best Practice Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Building Foundations</td>
<td>Needs of key stakeholders understood and linked through vision and values</td>
</tr>
<tr>
<td>2. Strong Vision</td>
<td>Vision is clear, memorable, motivating, ambitious, customer related and translated into measurable strategies.</td>
</tr>
<tr>
<td>3. Strong Values</td>
<td>Values support the vision, are based on key factors of success that are turned into measurable practices to meet customer satisfaction</td>
</tr>
<tr>
<td>4. Consistent Communication</td>
<td>Consistent communications by action, signals and words, related back to customers.</td>
</tr>
<tr>
<td>5. Embedding</td>
<td>Recruitment, training, appraisal, conduct, professionalism and succession all relate to values.</td>
</tr>
<tr>
<td>6. Branding</td>
<td>Organisation’s branding expresses vision and values.</td>
</tr>
<tr>
<td>7. Measurement</td>
<td>Rigorous measurement on how effectively vision and values are implemented.</td>
</tr>
</tbody>
</table>

According to Gayeski, (2002), a vision statement can provide a ‘mindshare’ of commitment as an intangible asset to an organisation’s employees and customers. Although Kaplan and Norton (1996) comment that beyond satisfying and delighting customers with bold statements, business unit managers must first translate mission or vision statements into customer based objectives by means of utilising the balanced score card, as it is critical for organisations to not just consider financial measures, but to also consider non financial measures for local improvements at the front line and customer facing operations.
2.7 The Balanced Score Card

Figure 3: The Balanced Score Card, Source: 2europesolutions, (2004)

The balanced scorecard can be described as a composite tool for instigating a comprehensive feedback programme through engaging customer perceptions in addition to monitoring performance measurement, 2europesolutions, (2004). However, according to Chan (2004), this can be misleading, as municipal governments are guilty of developing more perceived outcome measures rather than addressing how they can improve output measures for satisfying customers. Similarly Poister and Streib, (1999) comment on the dangers of misrepresentation within public services and recommend that they must adopt the balanced scorecard as a forward-looking tool as well as an instrument to look at historical measures of performance. Kaplan (2001) continues this debate, by concluding that the balanced score card should be used to address the more inverted, intangible performance measures, by bridging the culture gap between vague mission and strategy statements and operational efficiency.

Ultimately, the balanced score card would work well as a tool for implementation with Engineering Service, although all service improvement initiatives within Cheshire County Council are traditionally implemented and driven by the corporate centre which is predominantly not in favour of such practice, as a consequence of inconsistent attitudes to
this issue amongst its core services. The Policy and Performance group have concluded that for example customer satisfaction would be perceived quite differently within a Social Services (Community and Care) environment and that this would compromise the Services' reputation, through unfavourable customer satisfaction scores. Additionally the County Council does not operate a universal consistent approach to staff recognition and reward. Rohm (2004) reports that public service organisations must adapt the business score card locally as a strategic performance measurement framework and a cornerstone of the organisation's management systems, by firstly identifying a broader universe of all its stakeholders and drawing upon this as a means for external benchmarking.

2.8 External Benchmarking

There are numerous examples of good practice which can be drawn upon, most notably from the Beacon Councils Scheme. This program is run by IDEA to promote good practice within local authorities, IDEA (2005)

In order to qualify for Beacon Council status, a highway authority must subject itself to the scrutiny of the Beacon Council Advisory panel. The panel must consider whether a Council's performance meets six critical factors and demonstrates the inclusion of activities of good practice:

- Vision and Strategy
- Evidence of full consultation with stakeholders of forthcoming projects.
- Co-operation when working with partners and customers such as statutory undertakers and other neighbouring local authorities.
- Demonstrate initiatives and actions to improve communication and efficiency of works carried out.
- Evidence of user and community satisfaction with the authority's strategy and implementation plan.

The following table summarises the information gathered to address customer focused activities within Beacon Councils.
Table 4: An Assessment of External Benchmarking Activities, source: IDEA (2005)

<table>
<thead>
<tr>
<th>Good Practice</th>
<th>Key Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Community Plans</td>
<td>• Define a consultation and engagement framework to guide staff.</td>
</tr>
<tr>
<td>• Citizens panels</td>
<td>• Identify all available communication networks</td>
</tr>
<tr>
<td>• Service standards</td>
<td>• Keep community groups involved</td>
</tr>
<tr>
<td>• Electronic service/defect reporting system</td>
<td>• Facilitate operational staff in entering into dialogue with communities</td>
</tr>
<tr>
<td>• Providing the opportunity to assist in the design of schemes</td>
<td>• Value every opinion</td>
</tr>
<tr>
<td>• Specific engagement with specialist road user needs</td>
<td>• Think of roles for the public to play in contributing to service delivery</td>
</tr>
<tr>
<td>• Local involvement via area forum</td>
<td>• Don’t be afraid to ask for community assistance</td>
</tr>
<tr>
<td>• Map based road works report on the web site</td>
<td>• Don’t assume that professionals know all the answers</td>
</tr>
<tr>
<td>• Weekly reports in local newspaper</td>
<td>• Don’t consult on ‘cast in stone’ proposals</td>
</tr>
<tr>
<td>• Individual letters to residents and business affected by roadworks</td>
<td>• Don’t underestimate the value of more eyes and ears</td>
</tr>
<tr>
<td>• Feedback from the public on the quality of the works operational and the scheme itself</td>
<td>• Engage with stakeholders and review policy and practice based on feedback</td>
</tr>
<tr>
<td>• Customer call centres</td>
<td>• Encourage feedback as a contributory mechanism for service improvement</td>
</tr>
<tr>
<td>• Define a gap between service delivery and public expectations</td>
<td></td>
</tr>
<tr>
<td>• Use political and customer dissatisfaction as a positive force for change</td>
<td></td>
</tr>
</tbody>
</table>

Consultation and community involvement is seen as an essential part of service delivery and performance measurement in all examples of Beacon Councils. Excellent engagement of public and street works providers and the development of effective systems are recommended to actively promote involvement of the public in schemes, Unwin (1975). An example of this can be drawn from processes enabling the public to feed into intended highway projects and proposed works through consultation. These methods can be perceived as defining success factors. Working in partnership with utility companies is also stated as a critical success factor in many of the Councils with Beacon status. A community focused approach is recommended to all County Councils from this scheme, as a means of improving customer satisfaction by engaging stakeholders, in order
to promote closer working relationships with Utility companies. Kirklees Metropolitan Council, (2005) comment that:

"The aim over the years has been to ensure that we have tried to find out what stakeholders' needs are and develop and implement schemes that balance technical and customer needs in order. Strong commitment to engaging stakeholders when carrying out schemes and philosophy is essential when reviewing and improving the consultation processes as customer expectations grow”.

Government North West (2006) also comment that:

“Good local transport planning must include stakeholder involvement, supported by a strong evidence base and analysis”.

2.9 Stakeholder Analysis within Engineering Service

Stakeholder analysis is a means to aid decision making by identifying and categorising stakeholders, Burgoyne (1995). Simmons (2004) suggests that involving stakeholders and their views in decision making, enhances organisational performance and reputation. Pettijohn, Parker and Kent (2001) also claim that it is clear from their recent research that the organisation's reputation can be improved if perceptions are raised across all levels of stakeholders, whether directly or indirectly involved with the service processes. Although Mascarenhas (1996) comments that the type and quality of information of each stakeholder group should be varied, as the “one size fits all” approach is unlikely to succeed. Schilling (2000), continues this debate, by stating that management of stakeholder interests and customer perceptions can be gauged by implementing an integrated approach, as it is critical to instil confidence within consultation processes, to allow stakeholders to participate in decision making. Although it will also be crucial to evaluate the requirements of each stakeholder tier, and filter information appropriately. Although Gray et al (1997) argues that a stakeholder accountability approach to improving performance may fail, by being too inert and only slowly responsive to the changing needs and expectations of stakeholders. It is therefore important to identify the type of stakeholder first.
Figure 4: Stakeholder Typology, Source: adapted from Bunn et al (2002)

The model developed by Mitchell, Agle and Wood (1997) is based on stakeholder power (ability), legitimacy (perceptions) and urgency (attention). This tool will assist in the process to analyse and identify which stakeholders are keen to engage with ES and align this with how relevant a communication strategy is to them. A stakeholder matrix in Appendix 7.2 refers.

2.10 Communications Strategy

Stakeholder analysis is critical when compiling a communication strategy as a tool within the performance measurement framework for promoting an open dialogue to customers. Table 4 provides a Stakeholder Analysis, (Appendix 7.3 refers). It is the ultimate aim to identify perceived current issues with communication, discuss and agree appropriate communications methods and frequency. This must also take into account internal customers, to ensure that commitment and effort is maintained within performance measurement, Wisniewski and Stewart, (2004).
The current communications strategy has not been updated since 2002 and states:

"We help people understand what we do, by providing information through a range of traditional and electronic media", Cheshire County Council, (2002)

The electronic media referred to is only available via the internet. It does not consider the benefits based upon those who are directly affected by the strategy, or represent the new structure. Customer/stakeholders requirements are articulated in brief with greyed out links, presenting an oversubscribed and somewhat confusing document, predominantly aimed at customers who are computer literate. Although a significant proportion of staff within ES are oblivious to the existence of any such document. Pertinently, Smith (2006) comments that regardless of the tools used to design a communication strategy, it is imperative that everyone within the organisation understands how their function contributes to the success of the communication strategy through customer relationship management.

2.11 Customer Relationship Management

The customer of Local Government services may be an individual, local community interest group, one or more elected members, a government department or minister, internal staff, but by enlarge the customer is any member of the public. Bryland & Curry (2001).

Customer relationship management (CRM) aims to align customer strategy and business processes, in order to improve perceptions of performance, Rigby et al, (2002). Although Kale, (2003) states that more emphasis should be placed on measurement of CRM data as a means to leverage customer data innovatively and efficiently to establish an effective relationship between customers and organisations.

Smith (2005) proposes that in order to identify critical performance indicators to achieve customer satisfaction, it is essential to analyse customer relationships and perceptions as a source of data that is not recorded within service delivery mechanisms. This could be
used to identify potentially useful variables and enable the organisation to analyse the causality of customer complaints, by expressing greater clarity of performance.

2.11.1 CRM through Information Technology

Building an IT infrastructure for CRM requires understanding, engineering, reviewing, building and rebuilding, Smith (2006). Although Levitan, (2004) reports that in order to achieve performance and customer satisfaction through IT, it is important to provide accessibility either in person or through IT systems.

The Government is currently promoting an initiative via the ODPM, (2005) to move towards e-government, as a means to improve customer relationship management. This is not intended to limit contact with local authorities, but to encourage customers to contact services and officers electronically. This includes the e-Government Interoperability Framework (e-GIF) to ensure accessibility for people with disabilities. It also gives organisations an opportunity to create a 360 degree view of customers and gauge performance, Eckerson and Watson (2000). Although Chen and Popovich (2003) argue that there is no quick fix solution to customer relationship management through IT, as there may be discrimination against the elderly, very young and disabled, taking account of possible restrictive access to and understanding of IT networks. As appropriately Lewis, (2004) proposes that it is essential that local authorities recognise the different profiles of their customers.

2.11.2 LACRM (Local Authority Customer Relationship Management System)

A new system as part of the ICT strategy has been launched within the corporate centre as part of the customer relationship management initiative to provide an on-line self service call centre facility that will operate a 24 hour access point for customers. Although the official call centre telephone number is not clearly visible on the front page of the Cheshire County Council web site. Appropriately Hekl (2005) comments that there are quite often implications with CRM automated web based self service centres, because unresolved customer enquiries can culminate in escalation and frustration for customers
that will undoubtedly ultimately require a movement from self service to assisted service resolutions. It is apparent that there is little comprehension as to how this stand alone system will be rolled out to services, or integrate with existing customer based/performance measurement systems, such as Confirm. Additionally there is an admission that no plans exist to invest in a module to provide predictive trend analysis of data of customer satisfaction.

2.12 Performance Measurement Software within Engineering Service.

2.12.1 SBS Confirm

ES has adopted SBS Confirm as a holistic IT architecture that is designed to manage the entire maintenance function within ES. Presented within a red - green dash-board concept, this integrated highways system fulfils and monitors all stages of service delivery requirements and is facilitated by means of a specialised in-house call centre and more recently an outsourced facility\(^2\) that is linked to the area highways offices within the six districts, Borough councils and term contractor, to monitor project progression status.

Figure 5, SBS Confirm Customer Service Dashboard, Source: Cheshire County Council (2006).

---

\(^2\) A strategy for implementing CRM is currently being piloted via a call centre, based in a remote satellite office, although there are no staff assigned to this project who have specialised knowledge of engineering service practices or are familiar users of SBS Confirm.
The system is specifically designed to log and monitor customer requests and complaints relating to repairs needed to highway defects. Although there is no apparent facility to summarise and monitor customer satisfaction data, other than ensuring that service delivery targets have been met. Pertinently, Feurer and Chaharbaghi (1995) emphasise the need to make the transition from generating organisational data into information and eventually into knowledge that can be used to assess performance management and customer satisfaction. This is recognised by means of a stand alone spreadsheet record held by the client contractor, (Nuttalls) when errors in performance delivery are highlighted and proactively rectified.

2.12.2 Excelsis CRM Software

Excelsis is an additional software system which has been commissioned to provide a reporting tool for performance measurement of BVPI, core and local performance target indicators. Although Hackney (2000) argues that CRM software vendors may entice organisations with promises of all-powerful applications, however to-date there is no evidence to suggest a 100 % solution. Indeed the rising costs of subsequent upgrades, inflated training costs, unplanned project budget revisions, unhappy customers, loss of employee confidence and a critical diversion of key management time and resources should have been taken into account prior to this investment, Schweigert, (2000).

Additionally there is no guarantee that this relatively unsophisticated reporting tool will provide value for money or a return on its investment, as the presentational data cannot be integrated with any other corporate or local systems. Also there is little emphasis given to recording customer satisfaction.

2.12.3 CRM Touch Points

A consequence of a centralised communication system is that the most prominent touch point within ES is its web page which has a facility for customers to report faults. In this context Creighton (2000) emphasises the importance of each touch point, whether a call centre or the internet to illustrate how the Service can improve customer satisfaction through consistent performance. Information points are based at County Council
buildings, libraries and Borough Council offices. In this context the public perception is clouded by their close association, Eary (2004). The current ES web page, provides an uncoordinated volume of information with confusing nested A-Z directories that does not endear itself to achieving a user friendly image or encompass customer value.

2.13 The Value Chain

Johnson and Scholes (2002) comment on the importance of an organisation being clear as to what activities it ought to undertake itself. However, Lawton and Aiden (1994), argue that within the public sector there is often an inconsistency between managers’ perceptions. They will need to understand the whole performance measurement process and how they can channel and manage the linkages of customer relationships through input, output and outcome of the value chain, in order to improve perceptions of customer value, as illustrated in figure six and identify any gaps.


Kouzmin et al (1999) report that an organisation’s performance measurement value chain has changed its value from public service management to consumerist orientation and in this context, performance is based on the “new public management” paradigm. However, variations in measurement of service performance can have a major impact on customer satisfaction and the gaps must be examined, Wilson, (1998).
2.14 Gap Analysis

Parasuraman et al (1985) recommends the use of the gap model, in order to carry out a gap analysis to identify; the perceived quality, the gap between customer expectations and perceptions and restraining forces of measuring service performance. This will work well, as the researcher is attempting to capture data on the perceptions of local factors “from the inside” against the secondary data contained from other regional authorities and within the Highways survey, Cheshire County Council (2004) and quality of life survey Cheshire County Council, (2005).

The Gap Model for perceived quality is governed by the magnitude and direction of the gap between customers’ expectations and their perception of the product or service.

Figure 7: Gap Analysis, Slack et al, (2001) adapted from Parasuraman (1990).

However Naumann and Giel (1995) also recognise the need to evaluate the internal perceptions and extend this further by recommending the use of a customer satisfaction model that encompasses five key levels of analysis, from the external customer environment to the internal processes; business performance, overall customer satisfaction, summary characteristics, specific attributes and critical activities. This will provide a useful tool for addressing a holistic overview in the context of the study, in addition to utilising Parasuraman’s gap analysis within the conceptual model.
Similarly, according to Mori, (2005) it will be essential to consider that expectations have a central role in influencing perceptions and satisfaction within Services and these in turn are determined by a wide range of attributes that are relevant within Engineering Service. Proctor, (1996), proposes that in order to explore a different orientation of strengths and weaknesses in performance measurement and customer satisfaction, the following areas should be considered, including: areas of explicit service communication, views about the Service, word of mouth communication and values/beliefs. These will ultimately contribute to a conceptual model for further investigation. A swot analysis, (Appendix 7.4 refers), has been compiled in order to evaluate current strengths and weaknesses that will influence factors within ES that are illustrated in this model.
2.15 Conceptual Model

Within the framework presented in this model, it is essential to consider how to design changes to improve new and existing services for the benefit of the public. Speller and Gobadian, (1993). Similarly Zeithaml et al (1990) report that discrepancies between service delivery and external communications can form exaggerated promises, and it is pertinent that two conceptual gaps contribute more prominently to gap four, which purport:

- inadequate horizontal communication and
- propensity to over promise communications.

Figure: 8 A Conceptual Model for addressing the gaps between Performance Measurement and Customer Satisfaction., Author (2006).
It is therefore appropriate that the gaps between performance measurement and the actual perception level of customer satisfaction will need to be examined.

It is critical for both accountability of organisations and individuals and for managers to produce better Services, Flynn, (1997).

The academic research and literature review presented in this chapter, figure 8 has been developed to assist with the analysis of performance measurement and customer satisfaction factors. Figure 8 identifies the gaps that influence how Engineering Service should review its processes.

2.16 Summary

The chapter has presented a comprehensive literature review of academic research. A number of conceptual models have been introduced in order to assist with the research project. This will provide the basis for the methodology that has been adopted and will be discussed in chapter three. The background knowledge has also been considered in order to answer the research objective, which is to provide:

“A Performance Measurement Tool for improving customer Satisfaction, within a Local Government Framework”.
3.0 Chapter 3 – Methodology

3.1 Introduction

The chapter defines the methodology adopted to undertake the research. It justifies the philosophical stance, approach and strategy utilised to address the research aims and objectives and why they were chosen. It details the methods of data collection utilised in relation to each research question and considers the benefits and limitations of each. It also discusses other issues surrounding data collection such as ethics and credibility in terms of validity and reliability

3.2 Research Philosophy

According to Saunders et al. (2003), the adoption of a particular research philosophy depends upon the way the researcher thinks about the development of knowledge. The “positivist” and “phenomenological, (comprising realist and interpretivist)”, dominate the literature. Remenyi et al (1998), state that, in adopting a positivist philosophy to research, one is:

"working with an observable social reality and that the end product of such research can be law like generalisations similar to those produced by the physical and natural scientists”.

He also assumes that:

"The researcher is independent of the research and neither affects nor is affected by it”.

Gill and Johnson (1991) theorise that the phenomenological philosophy is a study of how things appear or how people experience the world. Remenyi et al (1998) endorses this by articulating the necessity to discover:

"The details of the situation in order to understand the reality or perhaps a reality working behind them”.
Silverman (1993) follows the same theme and theorises that by adopting a purely positivist approach based on quantitative data may neglect the social and cultural construction of the variables which are being researched.

Therefore, it can be argued that the social world of business management is too complex to be generalised by definitive laws and that, in reducing this complexity, the richness of insight is lost. Therefore a positivist philosophy is not considered to be appropriate for this research and a phenomenological philosophy has been selected for the following reasons:

i) The researcher is an active part of the subject that is being researched and will be part of the process that will bring about changes as a result of it. Therefore, the research cannot be purely objective.

ii) The nature of the topic being researched is very complex. It cannot be characterised through quantitative data and statistical analysis alone. The researcher will need to utilise softer, qualitative data, at it will be necessary to explore subjective meanings by motivating people’s perceptions and analysis of their social interaction through communication mechanisms.

iii) It is anticipated that the research findings will not lead to the sweeping generalisations that are a characteristic of a positivist research philosophy.

3.3 Research Approach

Easterby-Smith, Thorpe and Lowe (2002), suggest three reasons why the research approach adopted is important:

- It enables a more informed decision to be made about the research design method;
- It will help to focus the mind on research methods that will work;
- It will help in adapting research method design to cater for constraints.
In this context, Saunders et al, (2003) hypothesise that the extent to which the researcher is clear about the theory at the beginning of the research will determine whether the approach to it is either deductive or inductive.

A deductive approach is more commonly linked with the positivist philosophy and involves the development and testing of a theory. This will involve a highly structured methodology to facilitate replication and will often be associated with quantitative data forging generalisations. Saunders et al (2003) emphasise that a deductive approach suggests “moving from theory to data”.

In order to research customer satisfaction and understand the requirements for achieving this through performance measurement, it would be unsuitable to follow a purely deductive approach, as the research project will demand a greater knowledge of the “softer qualitative issues”. The research is not attempting to measure the direct overt relationship between two or more variables. It is attempting to analyse the indirect relationship between one variable and another subtle intangible variable. Therefore an inductive approach is the preferred option, as it will allow for a greater understanding of the meanings attached to events and is commonly linked with the formulation of a phenomenological philosophy, for theory to follow data, Saunders et al (2003).

3.4 Research Strategy

3.4.1 Experimental and Survey Research Strategy

Experimental and survey research are classical forms of analysis that are strongly associated with the deductive approach. Additionally biases may arise from the course of the experiment, which may question the validity of this research design, Gill and Johnson (2002). According to Punch, (2001) the experimental and survey research strategies are a preferred design for collection of purely quantitative data in order to test a defined theoretical hypothesis. These strategies would be incompatible for the purpose of this research, as a phenomenological philosophy and inductive approach has been selected.
3.4.2 Grounded Theory Strategy

Data collection begins with the formulation of an initial theoretical framework. This precipitates the development of theories and predications that can be tested, by using further data to either confirm or refine the predictions, Saunders, Lewis and Thornhill, (2003:). This strategy is considered to be too time consuming for the purpose of the proposed dissertation topic. The author also considers that direct involvement for the purpose of this project would conflict with the objective approach required for this strategy.

3.4.3 An Ethnographic Strategy and Action Research

This Ethnographic strategy is used to interpret the social world that the research subjects inhabit. The purpose of this study is more appropriate for researching an organisation's culture, McNeill, (1990) However, Gummerson (2000) asserts that this type of research can only emerge from a lengthy period of intimate study. Therefore, it is considered to be too time and resource consuming for the purpose of this research. Similarly Action Research will also require a time consuming exercise, due to the iterative approach needed, although if this was a longitudinal study, action research would be a more appropriate method for capturing this data periodically.

3.4.4 Justification of Research Strategy

The only strategy that fully fits the research to be undertaken is the Case Study Strategy. The most important argument for selecting this strategy is to document the research and observe the inter-relations as they happen, rather than attempt to control behavioural events, Weerd-Nederhof, (2001). It will enable the author to explore existing data and also provide a new source of hypotheses, Saunders et al (2003). In this context, the author agrees with Yin (1994) who states that a case study research strategy has a distinct advantage over other research strategies, due to the “how” or “why” question that is posed to inquire about a set of contemporary events over which the investigator has had little or
no control. Although Wells (1994) argues that case study research methods without a theoretical framework can lead to a descriptive analysis without considering the wider picture and meaning behind it. Yin (1994) provides three case study characteristics that are pertinent to this research:

- The research aims not only to explore certain phenomena, but to understand them within a particular context.

- The research does not commence with a set of questions and notions about the limits within which the study will take place.

- The research uses multiple methods for collecting data, including qualitative and quantitative. However qualitative methods will be selected primarily for the purpose of this research.

A number of variables have already been identified within a preliminary research project which has been perceived as an important contribution to the service. In this context, it has been necessary to also carry out a comparative case study, as recommended by Jankowicz (2002).

This will involve conducting interviews and asking the same questions to other organisations, enabling the author to compare findings from Cheshire County Council and four other regional authorities in a systematic way, by exploring different stances to the issues being examined.

3.5 Research Methods

3.5.1 Data Collection, Preparation and Analysis

Many authors including Bryman (1988), and Easterby-Smith et al. (2002) draw a distinction between qualitative and quantitative research and data collection methods.

3.5.1.1 Quantitative methods

Eldabi, Irani, Paul and Love, (2002) state that quantitative research is designed to emphasise a measurable collection of data and analysis that will usually influence a high degree of control over the phenomenon, where a positivist and deductive approach will
demand an absolute level of generalisation. This may lead to only partial conclusions which will then need to be integrated by a more leading qualitative method in order to establish relevant factors and processes. Bryman, (1993) and Anderson, (1990) add to this debate by stating that quantitative research is unable to take account of the differences between people and the objects of the natural sciences. Saunders *et al* (2003) highlight three distinct characteristics of quantitative research:

- Meanings are derived from numbers
- Data collection results in standardised data sets
- Analysis involves the use of diagrams and statistics

The traditional methods of collection of quantitative data in a management research context comprise of questionnaires, interviews and observation. These methods are mainly focused on collection of data in order to test theory through empirical research. Although Silverman (1993) argues that purely quantitative methods of research neglect the social and cultural construction of the variables being researched. With the ever increasing development of technology, qualitative data can be analysed more rapidly through various software packages, however Saunders *et al*, (2003) warn that this may present problems to the researcher if no preparation is taken into account, as quantitative software packages will assume that the user possesses a knowledge of charting and how to manipulate statistical techniques, allowing the data to be interpreted in the right way. Pertinently Robson (2003) asserts that:

"The negative side of readily available quantitative analysis software is that it is much easier to generate elegantly presented rubbish".

### 3.5.1.2 Qualitative methods

Silverman (1993) states that:

"*Qualitative research is often unjustifiably considered as a relatively inferior methodology for research purposes*".

Saunders *et al* (2003) present three distinct characteristics of research based on qualitative data that will be appropriate for the purpose of this research topic:
- Meanings are expressed through words;
- Data is collected in a non-generalised way which requires categorising with greater meaning
- Data analysis is conducted through conceptualisation.

Wass and Wells (1994) cite four major methods, used by qualitative researchers; observation, analysing text and documents, interviews and recording and transcribing.

Both Silverman (1993) and Saunders et al (2003) appreciate the importance of utilising participant observation, which attempts to discover the meanings that people convey by their actions and the frequency by which they occur.

3.6 Focus Groups

A Vision and Values focus group was convened comprising of fourteen attendees ranging from senior to middle managers and support staff. This was facilitated by the researcher in order to address issues related to the research question.

Projective techniques were used, including thematic apperception, using themes to ascertain perceptions, Hill et al (1999). These perceptions were then assembled by means of a brainstorming model adapted from White (2003). The information from the focus group then formed the basis of the research idea and subsequently the basis of a self administered questionnaire. As Wolcott (1990) argues that the research questions cannot be determined until some empirical work has been carried out. The feedback sheets from the focus group have been used to inform the design of the questionnaire in order to capture and elicit rich, qualitative data.

Semi-structured interviews were held with members of the focus group, in order to test a sample questionnaire, as a means to explore, in more depth the findings from the focus groups this will contribute to the questionnaire analysis, McAdam, Reid and Saulters (2002). This has enabled the researcher to correlate themes and ensure that the questions are appropriate to analysis of the opinion variable, Dillman (2000).
3.7 Questionnaire

The questionnaire has therefore been selected as a primary data collection method, (Appendix 7.5 refers), consisting of two categories of open questions, although various other academic disciplines have also been considered including Gill and Allen (2002). Thus taking into account that questionnaire construction can appear deceptively simple and that poorly designed instruments can lead to erroneous conclusions, Synodinos (2003). A qualitative questionnaire design was therefore adopted, offering explanation and meaning rather than simply quantitative measurement. The questionnaire was pre-coded, following recommendations from Punch (2001) who states that this will enable the researcher to summarise the data, by pulling together themes and identifying patterns, (inferential codes), for analysis. A pilot sample has been conducted, in order to test for biases and eradicate any duplications or errors as recommended by Saunders et al (2003). The final version was then sent via e-mail to the group as a sample. A covering memo, (Appendix 7.6 refers), was attached to the document as recommended by Punch, (2001). Conclusions have been verified by means of coding by themes in order to analyse the opinion variable. The focus group feedback has also been considered Synodinos, (2003).

3.7.1 Results from Initial Research

The research was initially undertaken from June 2005 for a research project. Results from the questionnaires and interviews that were carried out within Engineering Service with a population of 14 has exposed weaknesses that will need to be addressed within the three tiers of management. It has been recognised that there is a need to conduct surveys as an interim measure for research purposes in order to establish how the service can meet customer expectations. However, there is also a need to carry out further research that will be critical in order to identify a performance measurement tool for improving customer satisfaction, both internally and externally. This can only be achieved by extending this research further in order to identify any gaps, Parasuraman (1990).
It is clear from the initial overall programme of results, that weaknesses have already been revealed through the consensus of opinion variables. These suggest that ES staff are good at service delivery and meeting BVPI; Local performance indicator, proxy indicator targets and budget performance management targets, but are arrogant when considering customers expectations. The overall perception of priority to respond to customers has achieved a very low percentage of only 12% compared with prioritising targets for service delivery and budget performance management, which achieved 62%.

Results from the qualitative questionnaires, have also revealed that staff have generally adopted negative deep routed values, when considering the needs of customers and there is a realisation that internal and external communication will need to be improved. Therefore the questionnaire will act as a purposive sampling method, that will enable the author to answer the research question and meet the research objectives as the nature of this case study is particularly informative, Neuman, (2000). This method of research has been repeated and the questionnaire survey has been conducted electronically with a covering note, to a new population of fourteen. Jankowicz (2000) recommends; that once the evaluation and analysis of the results of the respondents has been gathered, it will be critical to re-visit the research question and generate patterns of data, which can be identified as trends for comparisons, plausibility, clustering and contrasting answers). Conclusions will be verified by means of coding by themes in order to analyse the opinion variable.

3.8 Semi – Structured Interviews.

According to Ratcliffe, (2002) the semi-structured interview plays a half way -house between the highly rigorous and inflexibility of a structured interview and the semi-structured open ended and more subjective approach to conducting an interview, thus giving more latitude to the interviewer in order to gain a more flexible opinion based respondent. In this context, semi –structured interviews have been selected for the purpose of the research and were held initially with two key officers. A Chief Engineer (pilot from the sample) and the County Engineer. Although this study will offer a more balanced view, following another four semi structured interviews that were carried out with Performance Managers from four other local authorities. These included:
Derbyshire County Council

Shropshire County Council

Flintshire County Council and Liverpool City Council.

These officers have been selected due to their experience, knowledge and involvement of customer satisfaction and performance measurement related issues, within an engineering discipline. Performance measurement and customer satisfaction is an established concept that has taken on renewed importance in a variety of organizations, Camarata, (2000). The prime objective was to draw up a comparability analysis with other like to like organisations that are members of East and West Midlands Shire authorities, Service Improvement Group. Additionally, research was also carried out with the Performance Manager from Liverpool City Council and considered on a smaller scale. Despite the interviews being non-compulsory, there were no refusals. The researcher prepared opening comments and suitable questions that did not introduce biases.

Consideration has been given to tape recording the interviews, although a number of advantages and disadvantages were pinpointed by various authors, including: Easterby-Smith et al, (2003), Ghauri and Gronhaugh, (2002). A useful check list is provided by Saunders et al (2003) that has enabled the researcher to consider these options. Although interviews were not recorded due to issues that might inhibit the respondents answers as the interviews were conducted on a one to one basis. A full written record has been compiled as soon as possible to avoid loss of information as recommended by Healey and Rawlinson (1994).

The themes were extracted from the documented notes and fed into the analysis, although other themes were also identified that were different from the initial foreshadowed topic, Hammersley and Atkinson, (1995). The notes from all four interviews will enable the author to triangulate the results by also considering the secondary data.
3.9 Secondary Data

According to Stewart and Kamins, (1993) the use of secondary data within organisations can often prove to be advantageous to any research, as the data has already been collected, which provides an unobtrusive measure, although Denscombe (1998) warns that there may be a conflict if the secondary data is not specifically appropriate to the research topic. The secondary data for the purpose of this research will comprise of; results from the County Highways survey, Cheshire County Council (2004), a quality of life survey, Cheshire County Council (2006). results from a Transforming Cheshire3 pilot customer satisfaction census and a recent joint customer satisfaction survey, organized jointly by Cheshire County Council, Engineering Service and Nuttals, who are currently appointed as Cheshire County Council's term maintenance contractors. This data will enable the researcher to triangulate the findings with other data, as recommended by Saunders et al (2003).

3.10 Triangulation

The need for triangulation arises from the ethical need to confirm validity of the processes, Stake, (1995). In case studies, triangulation can be used by carrying out multiple research methods, Denzil, (1984). As the effectiveness of triangulation rests on the premise that any weaknesses of each single method will be compensated by counter-balancing strengths on another, the author has utilised a combination of research techniques in order to study the same phenomenon for the purpose of answering the research question, as Healy and Perry (2000) state that a picture of reality from one source can be triangulated with other perceptions and these multiple perceptions can forge triangulation data sources, enabling interpretations of those triangulations. Lincoln and Guba (1985) also recommend the use of triangulation techniques, such as multiple sources of evidence during the data collection and analysis stage, as this will add credibility to the findings.

---

3 Transforming Cheshire is a corporate initiative. Its purpose is to identify and address specifically how the Council engages and contacts its customers. Specifically it is about putting the right culture in place where innovation and improvement can thrive, Cheshire County Council (2006).
3.11 Ethical Issues

Wells (1994) defines research ethics in terms of a code of behaviour that is appropriate to academics and the conduct of the research. Ethical issues will usually be related to the rights of the participants in relation to consent and anonymity. This includes confidentiality of data and its effects on participants, and the behaviour and objectivity of the researcher.

The author has been open with the participants regarding the objective of the research, in accordance with local and corporate policies; all information has been volunteered to the researcher and will remain confidential.

Benefits of the aims and objectives of the research have been demonstrated by the author to the management within Engineering Service and have agreed to contribute any findings to be included within service planning processes that will ultimately feed into the performance management framework.

3.12 Time Horizons

A Gantt chart is proposed by Saunders et al (2003) this will provide a snap shot of a visual schedule for activities that will be deployed in order to monitor tasks and activities; these have been plotted against a time line. This is recognised by the author as the most suitable choice for carrying out the research within deadlines and works well with the selected research approach.

3.13 Analysis of Data

Despite the advantages of the case study research and the use of qualitative techniques, the reliability and validity remain in doubt, Riege, (2003). Similarly, Donnellan (1995) questions the analytical process of qualitative data. Hunt (1990) continues this debate with more clarity and suggests that qualitative methods such as case studies commonly follow realistic modes of analysis, as the main objectives are to discover new relationships of realities and build up an understanding of the meanings of experiences rather than verify pre-determined hypotheses. Johnston and Leach, (1999) recommend
this method of analysis as it fits very well, specifically with areas of customer relationship marketing and customer satisfaction.

3.13.1 Data Analysis Process

The following processes for evaluating the results of both of the questionnaires and interviews have been used as recommended by Saunders et al (2003).

- Convert rough field notes into a written record and (transcribe interviews)
- Analyse results from questionnaires.
- Reference all material and record on a proforma summary sheet
- Code the data.
- Group the codes into smaller categories according to the themes.
- Write summaries of the finding at various stages
- Use summaries to construct generalisations
- Continue the process until generalisations are sufficiently robust.

In the case of this study, the data was coded according to the results of the questionnaires and interview questions. These have been input onto a Microsoft excel spreadsheet for analysis. A number of the independent variables were analysed to establish potential correlation. Broad common themes were identified and responses were summarised and categorised according to those themes.

3.14 Summary

The chapter has defined the methodology that will be adopted to undertake the research. It has discussed the ethical nature of the research.

The phenomenological philosophy and the predominantly inductive approach will be used. This has been justified by the nature of customer satisfaction that is a complex and unique phenomenon, which cannot be explained through statistical analysis alone. Furthermore, it is anticipated that the research findings will not lead to the sweeping generalisations that are characteristic of positivist-deductive research. The author is not
playing a purely objective role which would be expected from a positivist-deductive stance.

The chapter has also discussed the strategy utilised to address the research objectives. Therefore due to the social science nature of the project, where human behaviour is significantly influenced by the setting in which it occurs, a qualitative and interpretivist research is the preferred method, which will adopt a phenomenological philosophy and an inductive approach.

Finally the chapter has discussed and justified the methods and analysis of data that will be utilised in relation to each research question and the issues of validity and credibility surrounding them.

4.0 Chapter 4 – Findings

4.1 Introduction

The chapter reports the findings of the research that is described in Chapter three. It sets out the facts and presents the main themes that have been identified about the current and desired methods of organisational performance measurement together with its impact on perceptions of how the service can measure customer satisfaction. The findings from the case study are presented in detail in order to provide context and enhanced detailed understanding. Due to the descriptive nature of the research in parts, the data will be presented in two forms. As Braud and Anderson (1998) state that in order to analyse human experiences within social science research, it is advisable to look at the data from all angles. In this context, where possible, clearly labeled graphs have been used to illustrate the data and where appropriate, these have been supported with quotes from the respondents.

Excerpts from the interviews are also documented with descriptive data, as they are a critical component to the research methodology, as described in chapter three. Respect of confidentiality has been taken into account as recommended by Darlington (2002), who suggests that as it will sometimes be difficult to disguise the identification of a respondent. This relates particularly to those who have provided data within a specific
field. It is advisable to reduce the risk of recognition by presenting data in a disaggregated way, or present thematic frameworks, which concurs with suggestions from Bryman and Burgess (2004), who recommend that in order to gain richness, depth and diversity of data findings, the process of thematic frameworks enables the researcher to process abstraction and conceptualisation, while reviewing the material and summarising recurrent themes. Themes can then be placed into categories that can be sifted and sorted.

The results from the initial research that was carried out in June 2005 as a pilot study are referred to in chapter three, although the researcher will not disclose any conclusions of this or any other current research at this stage. Conclusions from the research will be discussed in chapter five.

4.1.1 Case Study

A very important advantage of the case study material lies in the richness of its detailed understanding of reality, Mitchell (1983). As described in chapter one, the researcher is very much part of the development of the performance management framework and customer satisfaction practices within Engineering Service and in this context has been employed as Service Improvement officer for a period of two years. This has facilitated the researcher with an opportunity to draw comparisons between the two processes of performance measurement and customer satisfaction. Consideration has also been given to how these processes link with corporate centre expectations. Pertinently Zonabend (1992) states that case study research is done by giving special attention to complexities, observation and analysis of the case under study in such a way that it incorporates the views of the "actors" within the case study.

Specifically, the research objectives are derived from identified gaps as illustrated in the conceptual model of enquiry. These will ultimately assist with identification of the gaps between performance measurement and customer satisfaction referred to in chapter three. The research design has embraced both qualitative and quantitative methods, although qualitative methods have been selected as more prevalent with quantitative data providing statistical support for the qualitative findings.
4.1.2 Analysis of Primary Data

The data within this section will be presented in a table, under themed headings. Units of qualitative data has been extracted from the questionnaire results table and are labeled with themes, using an interpretivist approach, as recommended by Saunders et al (2003). The aim is to ensure that the information is clear to the reader, demonstrating its relevance and is set out logically. Data may be compared between respondents from the questionnaire where appropriate. For this purpose, quotes will be articulated in italics.

4.2 Analysis of Coded Themes from the Questionnaire Results

The questionnaire (parts one and two), has been designed to address factors relating to customer satisfaction and perceived performance within ES and to illustrate how this can be improved in order to gain greater prioritisation for measuring and understanding customer satisfaction issues through the performance management framework. The processed data from the questionnaire results table has been analysed and coded into categories. Themed units of data are summarised and illustrated within charts. The coded themes from the results of the questionnaire (parts one and two) can be summarised as follows in table five:
Table 5: Questionnaire Data Analysis (part one) Customer Satisfaction and (part two) Performance. Source, Author (2006)

<table>
<thead>
<tr>
<th>Question Numbers</th>
<th>Code Number</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUSTOMER SATISFACTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2 and 4</td>
<td>1</td>
<td>Factors that would improve the service image to customers</td>
</tr>
<tr>
<td>3, 6, 10 and 11</td>
<td>2</td>
<td>The opinion variable between managing Customer Expectations through Communication Mechanisms</td>
</tr>
<tr>
<td>5, 8, 9A, 9B and 18</td>
<td>3</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>12 and 19</td>
<td>4</td>
<td>Priorities for Improving Customer Perceptions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Numbers</th>
<th>Code Number</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13, 14, 15, 16 and 17</td>
<td>5</td>
<td>Opinion of critical factors for improvement of Service Planning</td>
</tr>
<tr>
<td>7 and 20</td>
<td>6</td>
<td>Performance Culture</td>
</tr>
<tr>
<td>21</td>
<td>7</td>
<td>A Performance Measurement tool for measuring Customer Satisfaction</td>
</tr>
<tr>
<td>22</td>
<td>8</td>
<td>Other critical factors for Service Improvement</td>
</tr>
</tbody>
</table>
4.2.1 Results of Questionnaire Part One (Customer Satisfaction)

Chart 1 (Code 1): Factors that would improve the Service image to customers.

The coded data generated from the questionnaire, (part one), has been identified and presented within themes in table five. The results have revealed that the importance of a better web site should be ranked as a number one priority as this was raised as an issue by 93% of respondents from the questionnaire. Similarly 71% of respondents felt that the vision statement was a clear area that should be addressed in order to improve the service image to customers; this has been ranked as number two priority. 64% of participants felt that service delivery was a key priority to improving the service image; this has been ranked as number three priority. Professionalism scored 14% and has been ranked as a number four priority. Respondents have similarly ranked trust and reliability as a low priority with a score of only 14%.
The Web Site

Participants felt that the web site did not project the right image to customers and should be improved as follows:

"There is a clear need to provide more detail with clear contact names. The pages need to be kept up to date at all times. I would like to see a customer message board for any comments regarding our performance. This may be a way to achieve and measure customer satisfaction, which would create a more positive image".

"Ensure that it directs the public/customers to their desired location as directly as possible, avoiding confusing links to other directories".

"The web site is very confusing to older people and very young people. It gives the Service a bad image. A confusing web site is typical of the whole County Council and all services get tarred with the same brush".

"There is too much corporate jargon used, which is confusing to the public if they want to see where the road works are in Cheshire".

"Roads and Traffic should be highlighted as a heading with more images to create a user friendly image for this Service".

The Vision Statement

Chart 1 demonstrates that Respondents from the questionnaire results felt that the vision statement didn't articulate a clear message to customers and should be a key priority for improving the Service image:

"The vision statement is simply words on paper without any back-up of resources".

"The statement is not positive enough and does not convey the range of services covered by Engineering Service. There are only three words in the vision statement that convey
information of any real interest to customers; (1) Safe, (2) accessible, (3) highway network, but there is no commitment as to how we will treat customers”.

“It is more focused on how we will deliver the service, not on how we will respond to customers needs”.

Service Delivery
Chart 1 has also revealed that respondents perceive service delivery as a key area for improving the service image. The consensus of opinion can be summarised from the initial questionnaire as follows:

“Service delivery is a key attribute to projecting the right image, by means of getting the message across to customers by avoiding the spin and preventing confusion”.

“Good service delivery encourages customers to inform us of any problems”.

“We need to make it clear that we have listened to the customer even if we can’t always satisfy them”.

There was no significant information to support the remaining themes of Professionalism, Trust and Reliability.

![Chart showing mechanisms of communication]

The results from the chart 2 have revealed that the opinion variable between managing customer expectations should be done through the following mechanisms of communication to customers. General opinion was that the web site was the most popular form of communication mechanism. This scored a priority one ranking of 100%. The Highways/Quality of Life surveys were ranked as number two priority for communicating with customers with 86%. Equal support was given to the provision of both a remote call centre and to internal consultation (43%). Both were ranked in equal third place. Face to Face was only ranked at fourth with 36% which correlates with external consultation that achieved a very low score of 29%, ranking this as fifth. The lowest ranking in sixth position was considered to be press releases. This proved to be the least popular mechanism for communication with customers.
The Highways Survey/Quality of Life Surveys
86% of respondents agreed with this process. Those who disagreed commented as follows:-

"This only provides quantitative data and is not giving any of the meaning behind the results".

"This is not an accurate picture".

In House or External Consultation Survey
"We need to employ an external consultant for this work to ensure that the results are seen as fair and unbiased".

"This should be done by an external consultant like Mori".

A Remote Call Centre
Only 43% of respondents felt that this would be a more efficient mechanism for dealing directly with customers. One participant said that they strongly disagree. Responses are articulated as follows:

"The staff must have a knowledge of Engineering Service. Customers deserve to be able to speak to the right person".

"When a member of the public phones for advice or to complain, most times they want to speak directly to an Engineer, someone with first hand knowledge of the Service in which they are enquiring about. Call centres don't provide this service, because there isn't enough expertise to deal with it".

"Call centres just wind customers up"!

Press Office
"In order for our organisation to achieve better communication mechanisms, we need to project a listening, considerate and unbiased organisation. Press releases do not help,
because quite often facts are distorted by the Corporate Press Office who wish to put their own spin on news items”.

Chart 3A (Code 3): Customer Relationship Management

Have you dealt with Customer Complaints?

- No 21%
- Yes 79%

79% of respondents to the questionnaire had dealt with customer complaints, as shown in the pie chart above. The following chart identifies whether customers were satisfied or dissatisfied by the customer service that was provided. The chart shows that only 36% of respondents felt that customers were satisfied, by the response that they received. Therefore 64% of respondents felt that the customer was left dissatisfied.

Chart 3B (Code 3) Customer Relationship Management
Dissatisfied Customers:

"The customer was not satisfied because they have unrealistic expectations, especially regarding issues such as winter maintenance. It is impossible to satisfy customers all the time. I think that we provide good responses, with little gratitude".

"The customer was disappointed with the lack of communication from Engineering Service".

Priorities for improving Customer Perceptions (Code 4)

The feedback from the questionnaire can be summarised as follows:

Respondents felt that generally speaking there is too much emphasis placed upon meeting performance targets, rather than evaluating how Engineering Service can communicate with customers better. There was a surprising lack of understanding as to the identity of customers/stakeholders. The following comments summarise the general themes:

"We should spend much less time on performance monitoring and spend more time looking at what customers think of us. We should concentrate more on staff and service delivery".

"Customers do not understand performance indicators. Simplify all indicators within the Service Plan".

"We need to improve our communication skills with customers".

- 69 -
4.2.2 Results of Questionnaire Part Two (Performance)

Opinion of critical factors for improvement of Service Planning

71% of respondents when asked if Engineering Service is good at measuring performance expressed the view that this was an area where improvement was required. The questionnaire explored the option of using the Service Plan to monitor performance but only 21% felt that this was a feasible option. However 64% of respondents felt that the service plan would be a useful tool to measure customer satisfaction. The following graph highlights the primary critical factors in achieving a high level of performance outlined by respondents as a focused use of resources and clear vision.

Chart 4 (Code 5) Opinion of critical factors for improvement of Service Planning

![Chart showing critical factors]

A Focused use of Resources
Chart four has revealed that although the largest single group of respondents (37%) favour a focused use of resources, there were some negative comments included in the outcome of the questionnaire.

"Everything depends upon the funding issues, how can any plan achieve this?"
"We haven't got the resources".
Service Plans

"The Service plan will improve performance and demonstrate use of resources, but do absolutely nothing for customer satisfaction".

"If we can’t measure our performance properly, what chance do our customers have"?

Performance Culture

Chart 5 (Code 6) Performance Culture

Have Employee Attitudes Changed in relation to Perceptions of how the Service Performs?

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Participants were asked if they feel that sufficient effort is made by managers to embrace customer satisfaction issues. Only 43% of respondents felt that the effort of staff and management could be improved by embracing customer satisfaction issues.

Chart 5 illustrates that 100% of respondents agreed that employee attitudes have changed towards the perception of how the service performs. Feed back was articulated in the questionnaire as follows:
"I think that there is a much greater awareness of the bigger picture and the contribution to Service wide issues. Single status/change management and a new County Engineer culminating in the change around has destroyed staff moral".

"Staff are not being valued, so this will give a bad image to our customers".

"I think that there is a major feeling of despondency within the Service due to so many changes and these are unnecessary in my opinion".

"Poor management practices are impacting heavily on staff moral".


![Preference for Performance Management Tools](chart)

Chart 6, demonstrates that an overall majority of 57% of respondents favoured SBS Confirm, an intergrated highways management system, (as referred to in chapter 2, 2.12.1), as their preference for a tool to measure performance and customer satisfaction. This is clearly ranked at number 1. Feed back was received from one respondent, who commented that:
"The tool should simply be as automatically a part of the process as possible, although an officer who is designated to analyse this information internally would be better".

The Highways/Quality of Life survey was ranked 2 with only 15%. Ranked 3, were equal scores of 7% of respondents who would prefer to measure customer satisfaction by means of the balanced score card or external consultants, while 7% percent of respondents didn’t know.

4.3 Interviews

4.3.1 Introduction

As described within chapter three, there have been structured interviews conducted by the author with four other local authorities, within an Engineering Service discipline, in order to draw comparability and triangulate the results. Two of the authorities chosen for this research were members of the East Midlands Performance consortium. All participants included:

- Derbyshire County Council
- Shropshire County Council
- Flintshire County Council
- Liverpool City Council

The chosen method of analysis of the data has been assembled as categories within a thematic framework, illustrated in figure 9.
In addition to the notes from the semi structured interviews, reference is made to interviews carried out with the County Engineer and the chief Term Contract engineer. The following comments have been summarised from the themes within figure 9.

4.3.2 Tools for Measuring Customer Satisfaction

Respondent 1

"We tend to use SBS Confirm, for monitoring complaints, Citizens Panels and Mori consultants who carry out face to face surveys." I feel that Mori presents the best
analysis from a public service perspective, because they don't tell you what you want to hear, they are brutally honest”.

Respondent 2
“My preference would be SBS confirm customer module to measure customer satisfaction. This is carried out by means of a dashboard that logs requests and complaints and demonstrates how these enquiries have been progressed”.

Respondent 3
“The business improvement plan is available on the web site for customers to view, which could be used as a tool”.

Respondent 4
“SBS confirm for specific engineering requests and complaints”.

4.3.3 Customer Relationship Management

Respondent 1
“A call centre was set up to service the first tranch of frontline services. This has proved to be successful for general enquiries, but not so successful with a specialised area such as Engineering Service”.

“Within the two years that this was set up, there has been a growing demand for more specialised staff within an Engineering Service domain to be part of this operation. Initially we asked for a couple of volunteers to participate in this exercise, although I have to say that quite often, it might not just be a routine enquiry, it may constitute a more specific answer. Therefore the public invariably would like to speak to an engineer”.

“In an ideal world we would satisfy all customers. Within an Engineering concept that is impossible, but if customer relationships are managed and they are dealt with courteously at all times, then they feel valued”.

- 75 -
“From a personal perception of what satisfies customers, I feel that if we are moving more towards an e-government feed back system, it needs to be simple. If my dad can understand and use the web site, then I would expect other customers in that age bracket and those who are not very IT literate to be able to navigate through to the most relevant area. The public (our customers) don’t want confusing directories and a very busy web page, they want simplicity”.

**Respondent 2**

“The call centre is the latest initiative; this will enhance provision for service enquiries and provide better CRM. There is some debate as to how this will work, due to the expertise of available to staff it. I personally have reservations as to whether this will be useful in relation to engineering enquiries, due to the fact that most customers want to speak directly to an engineer and often take exception to being fobbed off”.

**Respondent 3**

“We do have a centralised call centre, which was a joint venture set up between this authority and another organisation to provide a 24 hour customer service, dealing with all core enquiries. It works well and helps this organisation to provide a better service to its customers”.

Further comments were considered from the County Engineer and Chief Term Contract engineer as part of an initial research project. The comments are pertinent to the topic of investigation and reflect the importance of customer relationship management.

“They are key issues that will need to be addressed, due to concerns over negative press, with no formal mechanism in place to enable adequate response”.

“There is clearly a gap between communication areas which will need to be addressed. There is a great need to address internal customers in addition to external customers, as there is sometimes a break down of communication between departments who don’t always work well together. Fundamentally it will be critical to build bridges with
internal clients and forge good working relationships by being proactive in gathering information on current departmental issues".

Other comments from Chief Term Contract Engineer

"There is a critical need for area based staff to receive further training on how to deal with customer enquiries in order to understand the fundamentals of managing customer requirements and customer expectations".

4.3.4 Customer Satisfaction Surveys and Research

Respondent 1

"Mori, external consultants carry out surveys to assess how satisfied customers are with footway/highway issues. These are carried out annually, to establish a trend that will enable any variables in the results to be analysed further".

"I have to say that I feel there is a significant advantage to investing in an external consultant such as Mori to carry out surveys, as they are brutally honest and they are seeing things from a completely objective point of view".

"These results then contribute and influence what customer expectations are and are subsequently put forward as proposals for inclusion within the LTP, (Local Transport Plan)".

Respondent 2

"We conduct the usual quality of life survey and a Highways Survey is carried out every three years. An external company analyses all our data. This is then passed on to a communications team who are based at the centre".

Respondent 3

"As far as I know we have not built an industry for conducting and analysing surveys. It is probably because of the difference in demographics compared to Cheshire. We don’t seem to get any serious complaints from the public".

- 77 -
Respondent 4

"The whole authority would conduct a Quality of Life public survey to ascertain not only whether the general public was satisfied with services as a whole, but also to find out whether they had any knowledge of how to make a complaint. It would also enable the authority to establish customer awareness of consultations in progress and also taking this a step further to find out if people were aware of the committee process and how it would relate to specific issues”. This survey is carried out annually”.

4.3.5 Performance Measurement

"CORVU is our established system that monitors BVPI’s and calculates the results to present in regular reports. Each BVPI custodian is responsible for their own results. This system is very easy to use, because it contains a simplified methodology for presenting formulas associated with each BVPI. This allows the auditors who carry out the BV review inspections to assess each service by means of a logical pathway. We were praised as an authority for our concise approach to presenting BVPI data”.

“We like to operate an open door policy to customers who have a desire to find out more about performance measures”. I and my team would have no hesitation in taking the time to explain how it works to any interested parties”. "Additionally BVPI survey satisfaction data for BVPI’s (103) (% people satisfied with local transport information)”. BVPI (03) (percentage of citizens satisfied with the service) BVPI (04) (percentage of complainants satisfied with the handling of a complaint). These BVPI’s are particularly important for measuring performance within a front line service such as Engineering”.

Respondent 2

"We use lots of different systems for measuring performance and monitoring our PI’s, although most of them are reflected within our quarterly review, which is available in the public domain".
"Quite often employees find this area of work boring. Managers only interpret their performance measures when something goes wrong".

Respondent 3

"The only performance indicator we measure is BVPI 195 (Street Cleaning and cleansing)".

Respondent 4

"Yes there is great emphasis placed upon custodians and managers to monitor their targets rigorously. The custodian of each BVPI and managers of Local Performance Indicators are expected to complete input, output and outcomes onto a screen that is designated specifically for their particular area. If they do not complete this responsibility, then an alert is sent directly to the chief executive. So an understanding and ownership of how to interpret data is at the forefront of each person's responsibility".

4.4 Performance Management

Performance management is a critical component for improving quality of service delivery and for driving service planning. Current methods of managing performance within Engineering Service are driven by local performance indicators that are selected by each divisional manager to support local activities included within unit team action plans. There has been confusion created between Operational Managers, Highways Strategic Managers and Locality Managers as to how to progress this.

There is however a legal obligation to provide measurement data to justify meeting statutory targets using the number of existing BVPI's, LTP (Local Transport Plan) targets. Local performance indicators including; technical, non technical, financial indicators, outputs and outcomes will need to be analysed in order to establish their relevance, as recommended by Kaplan and Norton, (1997).
Table 6 illustrates the current indicators for in year reporting. Although BVPI (03) (percentage of citizens satisfied with the service) and BVPI (04) (percentage of complainants satisfied with the handling of a complaint) are not included as part of the measurement criteria within the ES service plan and it has been decided by County Councilors that these performance indicators should not be listed as a priority one concern for Cheshire County Council with the corporate service plan.

**Table 6: Current ES Best Value Performance Indicators and Local Transport Plan targets, source: Cheshire County Council, (2006).**

<table>
<thead>
<tr>
<th>Service Priority</th>
<th>Service Key Actions</th>
<th>Annual Indicator</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain the highway network and related infrastructure in a safe condition</td>
<td>Delivery of Highway Maintenance Revenue Budget, Highway Structural Maintenance, &amp; Bridges Capital Programme and associated inspection regimes &amp; condition surveys</td>
<td>BVPI 223</td>
<td>Condition of Principal roads</td>
</tr>
<tr>
<td>Improve the condition of Cheshire's roads, bridges &amp; footways</td>
<td></td>
<td>BVPI 224a</td>
<td>Condition of non-principal classified roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BVPI 100</td>
<td>Number of days of temporary traffic controls or road closure on traffic sensitive roads caused by roadworks per km of traffic sensitive roads.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BVPI 187</td>
<td>Condition of surface footway</td>
</tr>
<tr>
<td>Maintain footways, signing &amp; lighting</td>
<td></td>
<td>BVPI 215a</td>
<td>Rectification of Street Lighting Faults non DNO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BVPI 215b</td>
<td>Rectification of Street Lighting Faults DNO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BVPI 165</td>
<td>Percentage of pedestrian crossings with facilities for disabled people</td>
</tr>
<tr>
<td>Improve footway condition and work in partnership to improve the public realm</td>
<td>LPSA2 – Footway Improvements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raise road safety awareness and improve safety for all road users</td>
<td>Delivery of Annual Local Safety Scheme Capital Programme, Safety Camera Partnership and Road Safety Education and Training.</td>
<td>BVPI 99a (i)</td>
<td>Road accident Casualties KSI (Killed or seriously injured)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BVPI 99a (ii)</td>
<td>Road accident casualties KSI percentage of change in numbers of people killed or</td>
</tr>
<tr>
<td>BVPI99a (iii)</td>
<td>Road accident casualties, percentage of people killed or seriously injured in road traffic collisions since 1994-98 (Average)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVPI 99b (i)</td>
<td>Road accident Casualties KSI Children killed or seriously injured.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVPI 99b (ii)</td>
<td>Road accident percentage change in the number of children aged under 16 years killed or seriously injured in road traffic collisions since the previous year.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVPI 99b (iii)</td>
<td>Percentage change in the number of road traffic collisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVPI 99c (i)</td>
<td>Number of People slightly injured.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local LTP2 Target 15 – PIA reduction per £1m invested in LSS</td>
<td>Number saved per annum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local LTP2 Target 16 – Total KSI on county roads</td>
<td>Number recorded by Police (PIA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide safe access for Vulnerable road users.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local LTP2 Target 14 – Pedestrian Crossing with facilities for disabled people</td>
<td>% crossings with facilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.5 Secondary Data

4.5.1 The Highways Survey

Chart 7: Public Perception of Customer Responses from Engineering Service.

Themes

- Problems with roads: 22%
- Lighting of streets/pavements: 18%
- Drainage problems: 16%
- Road-traffic conditions, calming, crossings: 12%
- Pavement problems: 11%

Percentage

Chart 7 has been created to represent the problems causing customers to contact Engineering Service within the Past 2 Years. The themes demonstrated within the chart are not related. It is clear from the chart that this only articulates the reasons for customer enquiries and not the problems associated with how difficult it is to contact the service.

Chart 8: QoL survey, Reasons why Customer perceptions of Engineering Service are unhelpful.

Themes

- Requested action not carried out: 53%
- Didn't get information: 29%
- Not interested in problem: 13%
- No-one seemed willing to help: 13%
- Other: 6%

Percentage

It is clear from the chart that there is a very negative perception by customers in relation to service delivery by Engineering staff. 53% of clients felt that their requested action was not carried out. Customers may have unrealistic expectations in relation to their requests.
for service from Engineering Service based on personal criteria rather than factors affecting the highway network as a whole. Therefore the service would in these circumstances not necessarily have the authority or funding to take action. This could be perceived as poor customer service. Although 29% of respondents felt that they didn’t receive any information and there was a perception of a lack of co-operation recorded by 26%.

4.5.2 Quality of Life Survey

The Quality of Life Survey, Cheshire County Council, (2005) aims to monitor changes in public perceptions, or priorities for improving quality of life. The survey is a key component of the consultation strategy of the whole authority.

Under the heading, ‘Making Cheshire Accessible for All’, the condition of highways was a highlighted by 20% of respondents as a concern for improvement to roads in specific areas. 53% of respondents made more reference to road condition issues. Within this survey, there is no reference made to how each service deals with customer enquiries or how levels of customer expectations can be addressed.

4.6 Summary

The chapter has presented the research findings and has provided a comprehensive ‘data set’ to meet and answer the research aims and objectives.

The data from the questionnaire, interviews, service action plan and secondary data has provided a detailed analysis of what is actually measured within Cheshire County Council, Engineering Service. The case study research has enabled the author to meet the research aim by considering what the most important attribute is for measuring customer satisfaction. The questionnaires and semi structured interviews have provided a rich source of qualitative data. Findings from semi structured interviews conducted with four other local authorities who operate within an engineering service discipline has provided an effective comparison, thus enabling the author to triangulate the findings.
All data and findings in this chapter were obtained by following the methodology set out in chapter three. Chapter five will address the research objective and aims for establishing a tool for measuring customer satisfaction. The conceptual model will assist with this process.

5.0 Chapter 5 – Conclusions and Implications

5.1 Introduction

This chapter will provide a critical evaluation of the adopted methodology, discuss the findings from chapter four and reflect their relevance to the literature review in chapter two. It will also provide conclusions about the research question and research problem and discuss the limitations of the study and explore opportunities for further research.

In order to meet the aims and answer the research question, several methods were selected for this purpose, including a case study strategy. Data was obtained by means of questionnaires and semi structured interviews. Additionally secondary data has been considered and in particular the Highways survey and Quality of Life survey. This has enabled triangulation of findings. Reference has also been made to ongoing surveys that are being conducted by Nuttalls (Term contractor) and a census that is being carried out as part of the ‘Transforming Cheshire’ initiative. It is noted that the results from these surveys are not available for the purpose of this research. The data collected and the results from the qualitative analysis have been presented in chapter four. Chapter five will draw conclusions from the data analysis and explains how the research aims and objectives have been addressed. Recommendations from the research topic are presented in chapter six.
5.2 Critical Evaluation of Adopted Methodology

The research philosophy and an interpretivist, inductive approach as part of the chosen methodology was appropriate as it has enabled the author to address the research aims and objectives, thus allowing conclusions to be drawn, due to the qualitative intentions to gain an understanding of the meanings that people attach to events. This has enabled an exploration into what is currently happening within Cheshire County Council, Engineering service in terms of performance measurement and customer satisfaction and enabled patterns to be identified and linked as a means for establishing a performance measurement tool for gauging customer satisfaction. However there are a number of issues that have inhibited the research and they are discussed in the following sections.

5.2.1 Case Study

Miles and Huberman (1994) comment that the problem with case study research is quite often that there may be problems with replicability. This is pertinent due to the difficulties that could be experienced for gaining access to information by external researchers and would prevent them from gaining the true intensity of opinion within organisations. Similarly, according to Martinsuo (2001), there is often a small scope or limited target group, which may lead to an increase in the depth of topic, but lose the propensity of feelings, due to a smaller population. This is pertinent to this research, due to the fact that whilst the initial intention was of an exploratory nature, in order to establish participant’s opinions of the research topic, the combination of questionnaires and semi structured interviews did not enable this fully. In this context the questionnaires would need to be extended to a wider population.

5.2.2 Questionnaires

Questionnaires were distributed electronically to a cross section of 14 of Engineering Service staff. The aim was to take a diagonal slice through the management layers of the organisation in order to capture a variety of opinions. This according to Hammersley and Atkinson (1995) would enable different themes to be identified from the initial
foreshadowed problem which would assist with any further enquiry. All questionnaires were completed and returned successfully.

5.2.3 Interviews

Semi structured interviews with open ended questions were carried out successfully initially with both the County Engineer and the Chief Term Contract Engineer together with further interviews with performance managers who operate within an engineering service discipline from four other local authorities in order to enable comparability of data. This study would have been more balanced if there had been additional time allocated, to interview more than one County Engineer. Despite the interviews being non-compulsory, there were no refusals. Responses from the questions have exposed some gaps that will need to be addressed.

5.2.4 Secondary Data

Secondary data has provided a number of advantages to the research. More consideration was devoted to substantive analysis, thus enabling more time to be dedicated to the scrutiny of this data as a consequence of the availability and provision of internal publications. Although accuracy of the data could be challenged, as the Highways and Quality of Life surveys were compiled from an internal bias. Additionally more use could be made from the results of ongoing customer satisfaction surveys that are currently being conducted by Nuttalls Term Contractor and the ‘Transforming Cheshire census’, if this information were available.

External data has provided triangulation to provide comparability of working practices.
5.2.5 Conclusions

Hussey and Hussey (1997), state the importance of effectively planning and managing a research project. A timeline was produced which has enabled the researcher to prioritise and review a visual display of scheduled tasks and activities, as recommended by Saunders et al (2003) for the purpose of this research.

In conclusion the methodology has worked well with the nature of this research. It has provided substantive and meaningful data in order to answer and address the research aims and objectives, despite issues raised in the above critique.

5.3 Conclusions about the Research (Aims)

Aims one and two were to explore and evaluate performance measurement tools and establish their relevance for improving customer satisfaction and to provide a balanced appraisal and comparability of working practices between four other local authorities who operate within an Engineering Service discipline.

The objective of aim three was to identify any gaps between levels of customer satisfaction and perceived performance, in order to make recommendations for improvement.

A detailed literature review in chapter two has enabled this. Research was obtained from a variety of sources. This has ultimately assisted in the construction of a conceptual model and provided a research instrument to further investigate this topic within a service organisation to support the aim.

This section will explore further findings illustrated in chapter four and compare these with those in chapter two. The reader should note that findings from the charts and interview answers may be discussed in a different order to those presented in chapter four.
5.4 Conclusions about the Research Question

What type of Performance Measurement Tool should be used for improving Customer Satisfaction within a Local Government Framework?

The research objective was to undertake a review of current performance measurement tools within Cheshire County Council, Engineering Service and to assess how this could be used to improve customer satisfaction, within the context of the continuing Local Government modernising agenda. Chapter two has provided a detailed critique and presented the rationale of the performance management framework within an engineering service discipline. The findings from this case study were presented in chapter four in addition to results from the questionnaires, interviews and secondary data. A comparability of performance measurement practices has also been considered with four other local authorities. Formulation of conclusions that will be presented in the following sections has been assisted by the use of a conceptual model.

5.4.1 Strategic Issues

It is clear from chapter two which has set out the requirements of central Government’s modernised agenda, that there is a need for strategic management as a way forward for engaging people, getting their commitment and steering the organisation into the future. This can only be achieved if there are better communication processes formed with customers and stakeholders, Joyce (1999). As highlighted in chapter two, the latest CPA score has revealed a disappointing gap in service performance as a consequence of inconsistencies within processes for measuring service performance. It is therefore expected that the Excelsis reporting tool will create a long term strategic approach to providing a centralised performance measurement tool, Although Ansoff, (1991) recommends that organizations will need to adopt more than one strategic management process to improve measurement of customer satisfaction. This is also supported by the ODPM (2004), who state that local authorities will need to become less inward looking and more focused on identifying weaknesses and satisfying the needs of citizens in a consistent and efficient manner.
Engineering Service will need to draw up an updated communications strategy as recommended by Wisniewski and Stewart, (2004) in chapter two. This will take into account current communication standards and methods and frequency of communication and provide a lexicon of information available to internal and external customers. As Bell (1996) states that a communication strategy is a dialogue tool that promotes internal and external communications, customer relationships and performance management.

"It helps people to think beyond the limits of their thinking".

5.5 Conceptual Model

5.5.1 Conceptual Model Gap One:
Expected Service - Management Perceptions of Customer Expectations.

Results from the questionnaires and interviews within ES can be interpreted and consolidated under a general opinion, which implies that managers do not really comprehend what their priorities are for understanding perceptions of customer expectations. Appropriately this is articulated by one respondent who states:

"We should know who the prime customers are and be able to identify their expectations, through knowledge and understanding".

Although Parasuraman et al (1990) state that there is sometimes a lack of knowledge from the management as to what customer expectations are, due to an existence of too many levels of managers and those who are on the top level do not have any experience of dealing directly with customer issues. Additionally, often orientation of operations diverts the focus of customer requirements and reduces the efforts to understand their needs and expectations, Flynn and Talbot (1996).

Although Plunkett, Attner and Allen, (2002) state that managers’ perceptions of customers can be defined within two categories: Internal customers (employees and
colleagues) may need some information and their requests may not be met, consequently their ability to perform will be less effective than expected. Johnson and Scholes (2002) add to this debate by commenting that it is not sufficient to look at the organisations internal position alone. In this context Smith (2005) outlines five factors that will be critical to address in order to externally improve customer expectations of Engineering Service:

- Ensure that there is an accessible customer communication strategy available to external customers.
- Basic elements of service delivery
- The existence of basic support services, such as customer assistance and tracking of enquiries.
- A consistent process for dealing with complaints and providing satisfactory solutions to ‘bad’ customer experiences;
- Provision of a memorable service that exceeds customer expectations and provides value to customers.

It is clear that management perceptions of what customers actually want can be misunderstood through inconsistent interpretation within layers of managers who are resource driven and operate within the constraints of the principles of equity and public accountability for service delivery. Therefore it will be critical for ES managers of all levels to understand the linkage of customer expectation through input, output and outcome of the customer value chain, Porter (1988), as referred to in chapter two, by increasing knowledge understanding and ensuring that there is a consistent communication flow of interaction between managers, internal and external customers.

In order to close the gap, ES will need to create a positive experience for all customers, as the service must be able to capture and understand its client’s articulation of the problem, through knowledge and understanding and by responding in a consistent, scalable and cost effective manner, Lawton and Aiden (1994).
5.5.2 Conceptual Model Gap Two:


It can be revealed from chart four, that performance measurement processes within the service plan have been identified as a means to measure customer satisfaction, although this has engendered a gap between management perceptions of what the service should focus on and what is actually happening. This is articulated from one respondent:

"I think that most staff feel that measuring customer satisfaction through performance within service/unit plans is irrelevant. Some performance measures are useful, but we are in danger of creating an industry that serves little purpose for customers, and there is no end product for addressing failure in performance, because there are far too many performance indicators"!

The results have projected a consensus of opinion that ES is oversubscribed with performance indicators and forced to conform to a culture of inappropriate jargon, for example the ‘Golden Thread’, that mean nothing to customers. Local performance indicators are decided upon by Operational Managers and Team Leaders, although pertinently there is a lack of performance measurement information shared amongst staff within the lower levels of the Service and with those who are based in remote Highway Area offices. This is evident from comments from a questionnaire respondent who states:

"Most people don't understand what the service plan is or how their individual performance relates to it".

This concurs with comments from Zeithaml and Berry (1990) who state that organisations offering services that are performed in multiple locations are often subjected to misunderstandings and mistakes and inconsistencies, due to a poor job fit or lack of information or perception of what is expected of them. Managers must be willing to develop alliances that require the exchange of performance measurement information with staff as this will engender trust and a wider knowledge base of the meaning behind
these processes, Johnson and Scholes, (2002). This is consistent with comments from Page, Orange and Burke (2000) who state that results from performance measurement indicate what happened, but do not address why it happened and what to do about resolving it. Pertinently Feurer and Chaharbaghi (1995), emphasise the need to make the transition from generating organisational performance measurement data into information that will eventually become knowledge.

It will be critical for ES to observe recommendations by Heskett et al (1994) who propose that the internal performance chain should be of the right quality and equipped to deliver activities across the whole service on a consistent level that in turn are measured through the performance management framework.

5.5.2.1 Performance Measurement Processes

Excelsis is an additional web based software reporting system which has been commissioned to provide a reporting tool for performance measurement of mandatory BVPI, core, LTP and local performance target indicators. The most relevant performance indicators BVPI (03) (percentage of citizens satisfied with the service) and BVPI (04) (percentage of complainants satisfied with the handling of a complaint) are not however given a high priority or prominence within the system for monitoring customer satisfaction levels at a corporate or local level. Lambert and Pohlen (2001), state that public services should ensure that performance indicators are not just internally focused metrics, but should be outward facing on the customer or end user. Similarly Christopher (2001) emphasises that quite often the end user is a missing link within performance measurement systems and there is a critical need to measure customer sensitivity.

It is apparent that this system is not complete and that the timescale for rolling this out to other County Council services will create considerable on-costs relating to resourcing required training and subsequent upgrades. Additionally corporate guidelines and definitions of priorities are continuously subjected to change. Neely and Waggoner, (1998) cite the difficulties for designing a performance measurement system, they report that:
"If the PMS is not designed effectively, the results may be falling short of strategic goals. In simple terms, the performance measurement system must not only achieve strategic goals, but must encourage a user friendly image".

Therefore it will be critical to implement local performance indicators that underpin BVPI 03/04 customer complaints/satisfaction, in order to gauge the effectiveness of service delivery and planning through the transactional experience of the citizen and to triangulate 'hard' measures against 'soft' measures, as referred to in chapter two by Wisniewski, (2001). This will ultimately provide the management with mechanisms to understand the parameters of customer expectations in relation to service performance measurement processes, Kamakura et al (2002).

5.5.2.2 Customer Survey Processes

Great reliance is placed upon an internal Research and Intelligence unit to provide customer satisfaction survey data, from the Highways and Quality of Life surveys. The limitations of these surveys are that they are only executed every three years based predominantly on quantitative data that could be subjected to internal bias, Nicholls et al (1998). It is pertinent that the majority of respondents to question eleven in chapter four have demonstrated a preference for a facility to conduct internal surveys on an in-house basis driven by a lack of trust and a perception of low priority. This does not necessarily reflect accurate levels of customer satisfaction/dissatisfaction or elicit a detailed understanding of why customers are not happy with service provision. Wilson (2002) supports this by stating that the measurement of customer satisfaction will also be influenced by variations in the frequency and scale used to collect data as well as the collection methods.

Many organisations who conduct customer satisfaction surveys perpetuate this problem by failing to take account of what is important to customers from their point of view, without being fed a selection of prescribed alternatives, Hill and Alexander (2000). This is taken a step further by Gurau and Ranchod, (2002) who recommend that in order to capture the feelings of customers and measure the level of satisfaction it will be important
to develop a customer satisfaction index that will facilitate a consistent approach that enables regular monitoring of data and predictability of outcomes.

It will be business critical for ES to adopt a more consistent approach to conducting customer surveys, by considering alternatives to current practices operated by the remote Research and Intelligence unit and the corporate centre. Focused analytical resources will also be required to investigate and compare findings from on going customer satisfaction/scheme specific surveys that are undertaken by the Term Contractor.

5.5.3 Conceptual Model Gap Three:
Alignment of CRM Vision and Strategy through Streamlined Technology – Service Delivery (including previous and post)

Vision

It is essential for ES to convey the appropriate image to customers by developing user friendly processes which are articulated through the vision statement. This is supported by Doherty and Horne (2002) who confirm that organisations should implement long term strategic visions within their vision statement. The overall opinion of respondents as to whether the vision statement articulates the correct message was predominantly met with disapproval. Comments from one questionnaire respondent confirm this point:

"The statement is not positive enough. There are only three words in this statement that convey information of any real interest to customers; safe, accessible and highway network. I think that managers will need to realise that customer expectations are of great value and this should be emphasised within the Vision Statement, as it is the flagship image of this service"!

Engineering Service will need to consider a mindshare of commitment as an intangible asset to service employees and customers, Kaplan and Norton (1996), by utilising the seven best practices for making the vision statement work as proposed by Neely, Walters and Austin (2002) in chapter two.
Customer Relationship Management

The measurement of customer satisfaction is a significant field in its own right and is strongly linked to the rigorous management of customer relationships, Ryals et al. (2000). Appropriately Mulhern (1999) argues that customer relationships are not yet recognised as a necessity within public sector organisations and there is only a notional investment allocated for measuring customer satisfaction.

The concept of Customer Relationship Management has more recently revolved around investment for improving services to customers. A key element of this has been launched corporately through a “Transforming Cheshire” initiative that will impact on Engineering Service. Specifically a survey is being carried out to establish whether it would be beneficial to decant specialised engineering staff to be located in a remote call centre, as referred to in chapter two, although results from question six in chapter four, challenge this initiative.

Consultation with a comparable regional local authority based on experience suggest that the relocation of specialised engineering staff to a remote call centre has proved to be successful for general enquiries, but unsuccessful for specific engineering related enquires. They support the decision to establish a call centre with the following feedback:

"Within two years of setting up the call centre, there was a growing demand for more personal contact with highways engineers. The impact on their time proved to be more disruptive as there were no support staff available to pass the work on to. Quite often menial work that could have been dealt with by support staff was directed back to specialised engineers who were perceived to be more knowledgeable about specific projects and on going highways schemes by the public".

Conclusions to this section can be summarised with comments from a questionnaire respondent who reports that:
"I don’t think that the location of staff holds any importance to a customer, it’s the efficiency that counts".

5.5.3.1 Alignment of Streamlined Technology

An overall majority of 57% of questionnaire respondents within chart six of chapter four, selected SBS confirm, integrated highways system, for monitoring customer requests and complaints, as their preferred tool for measuring satisfaction and performance. Although Ahmad and Schroeder, (2002) warn that there is a danger with all singing and dancing systems, because quite often critical customer data is buried within departmental IT silos as a consequence of inadequate management resource. Similarly Donavan and Samler (1994) assert that many companies make the mistake of measuring their performance first without checking the alignment of what they will provide against what their customer expects. This is pertinent because there are no KPI’s (key performance indicators) developed specifically for analysing qualitative data for customer satisfaction/customer feed back levels within the SBS system.

The performance measurement system currently utilised by Engineering Service is based on logging customer requests and complaints, combined with a stand alone system which is operated by the Term Contractor for logging rectification of errors in service delivery and assessing their causality. These processes are independent of each other and not linked, thereby promoting a reactive system that is classed as ‘post event’, rather than initiating a predictive trend analysis, Carman and Conrad, (2000). There will be a need to develop an integrated system for monitoring and aggregating measurement of delivery variables through data mining reports, to enable the potential for identifying customer complaints, and to provide a repository of knowledge attributes Hart and Dale, (1995); Zairi, (2000). As appropriately Rigby et al (2002) note that CRM must aim to align customer strategy and business processes, in order to take a proactive stance on improving perceptions of performance.
Additionally these systems will need to be integrated within SBS Confirm in response to guidance from the ODPM in chapter two. The guidance advocates accessibility for people with disabilities, learning difficulties and the elderly within the move towards e-government, as a means to improve a network of relationships and develop joint action planning for a co-ordination of services based on users’ perspectives and priorities, ODPM (2005).

5.5.4 Conceptual Model Gap Four:
Service Delivery. (including Previous and Post) - External Communications

The General opinion from chart two, illustrated in chapter four concluded that the website is identified as the most popular form of external communication mechanism for service delivery. This scored a priority one ranking of 100%. Although recent findings from a scrutiny report, Cheshire County Council, (2006) have purported that current information relating to CCC’s services is confusingly presented with a proliferation of A-Z directories for the Highways Department in addition to other cross county services. Appropriately, comments from the results of question four, state that:

"There is too much 'corporate jargon' used, which proves to be confusing when the public are trying to find the road works site or report a fault. It is too complicated if you don’t know the right key words from the links within the website”.

These comments concur with an answer from an interview respondent, who stated that within their authority, it is critical to make the website as simple as possible to navigate through to the desired area. If an elderly person can find this mechanism user friendly, then this is a good measure of how we communicate with customers, Gaster and Squires, (2003).

Engineering Service’s performance can currently be perceived by customers as poor because there is a gap between the organisations external communications and the actual quality of service delivered to the customer. (Slack et al, 2001). Additionally, customer satisfaction can be influenced through a perception of poor service delivery, 'previous and
post', that is dependant on the funding stream and subsequent condition of the highway in previous years. Although Nichols, Gilbert and Roslow (1998) report that customer perceptions of public sector funding are unrealistic, they comment:

"cuts are not really cuts, they are just smaller funding increases as demanded by public sector managers".

Ultimately there is evidence to support inadequate horizontal communication and a propensity to over promise service delivery through inadequate communications. This is supported within chart two, where 'press releases' were considered by all participants to be the less favoured option for mechanisms of communicating with external customers. One respondent emphasised this point:

"Press releases do not help, because quite often facts are distorted by the Corporate Press Office who wish to put their own spin on news items". "The current token communications officer is not focused entirely on engineering issues, because their time is divided between other departmental issues".

Engineering Service will need to consider external communication of service delivery more sensitively as populism of citizen participation has increased the visibility of public sector practices and has put the monitoring of business processes in the spotlight, Davis, (2006).

5.5.5 Conceptual Model Gap Five:
Expected Service and Perceived Service

From charts 3A and 3B 64% of questionnaire respondents felt that customers were left dissatisfied. These results concur with chart 8 within the Highways survey, in chapter 4, that purport that 29% of external respondents felt that they didn’t receive any information. 26% perceived that there is a lack of co-operation from staff within ES.

Engineering staff will need to be consistent when dealing with customers from all back offices and touch points. There is a widely recognised conflict in relation to the time commitment required by staff at information points, Libraries, Borough Councils and
within the satellite Area Highway offices between the demands of face to face callers and the need to respond to telephone enquiries. If CRM (Customer relationship management) touch points are to operate effectively there must be a system in place that joins front and back offices and provides an integration and sharing of information if this gap is to be closed, thus enabling equity of treatment to customers, Johnson and Gustafsson, (2000).

5.5.6 Conceptual Model Gap Six:
Internal Communications - Service Delivery.

A gap has been revealed within chart 5, 43% of participants felt that effort of staff and management could be improved by embracing customer satisfaction issues. Indeed this has been reinforced through an initial research project, from interviews conducted with the County Engineer and Chief Term Contract Engineer. Both participants emphasised that there is clearly a gap between internal communications and identified a requirement to address this by means of extended training on SBS confirm systems. The need to promote good internal communications in respect of building bridges with other County Council services was also highlighted. Although Nicholls et al, (1998) comment that public sector organisations spend a lot of money on training, but fail to focus their training programme on customer service and service performance. Pertinently Teas (1993) adds to this debate by commenting that it is managerial attitudes that set the tone for staff, if the boss doesn’t care too much about satisfying the customer, then staff will adopt the same attitude.

Within Engineering Service there are a number of interpretations for scoring individual performance of internal activities and monitoring the interface with customers through the service plan that cascade down to the staff appraisal system. These are contained within Unit Team Action plans. Although there is currently a perceived inconsistency between managers as to whether customer service training should be included within Unit team action plans and how individual performance will be measured. A respondent from question 15 states:
"There is no process for measuring performance effectively at an individual or team level to benchmark ourselves against."

It is apparent that there is a dearth of internal knowledge relating to performance measurement processes and how the service deals with customer satisfaction scenarios. This is demonstrated by the currently adopted definitive top down approach to management issues. In order to overcome this shortcoming it is essential to analyse service defined attributes that are inconsistently applied by employees who do not have a direct interface with customers. It will be essential to unleash optimum implicit intellectual capital, as according to Barlow and Jashaparal (1998), implicit knowledge is the most valuable to an organisation as personal knowledge based on individual perceptions, projects an informal repository of intuition. Engineering Service staff must in this context learn to share knowledge of customer issues amongst non-expert users, in order to educate those who do not have a direct interface with customers or understand performance measurement processes to gain an insight into these areas of work.

5.5.7 Conceptual Model Gap Seven: Management Perceptions of Customer Expectations - Actual Perception Level of Customer Satisfaction.

Fowler & Graves, (1995) stress that Managers need to understand the strategy and business plan of their organisation, in order to meet customer expectations; otherwise this will cloud the image of a service and create a perception of poor performance.

If the ultimate aim is to identify perceived current issues with customer satisfaction, managers will need to evaluate current methods of communication, by devising an appropriate strategy for service wide implementation. The current communication strategy, produced in 2002 has been withdrawn from the web site and has not been replaced. Additionally the service plan has also been withdrawn from the web site and is still incomplete. This has occurred because of a void in the decision making process for which local performance indicators should be included within Unit Team Action plans.
Within chart six, there is a clear majority of 57% who feel that SBS confirm, Highways management system is the most effective business tool for measuring performance and providing customer satisfaction, however 15% would prefer the Balanced Score card methodology. This demonstrates a lack of knowledge and shows that little research has been carried out to establish any alternative to SBS confirm. Johnson and Scholes, (2002) recommend the Balanced Score card as a tool that combines both qualitative and quantitative (tangible and intangible) measures, acknowledges the expectations of different stakeholders and relates an assessment of performance to the choice of strategy. Although as referenced in chapter two, the author concludes that the balanced score card would work proficiently as a tool for implementation within Engineering Service, however the corporate centre does not favour its adoption, due to inconsistent practices amongst other services who would also need to adapt to this model.

There is clearly a gap between management perceptions of customer expectations and the actual perception level of customer satisfaction, as priorities for achievement have not been acknowledged by Cheshire County Council's corporate centre. Customer satisfaction is only listed as a priority two within the corporate agenda, thus minimising consideration for a positive level of perception from customers. This is not a favourable comparison with two other local authorities appraised within the Performance Practitioners consortium who consider customer satisfaction to be their number one priority.

The definition of customer expectations is largely expressed through assumptions, James (1989). The three main stakeholders; users, providers and funders can often operate within a potential blame culture, but remain interdependent. This is exemplified by the management practices associated with ES that provide ammunition for both healthy collaboration or unhealthy conflict, Holman (1999). Pertinently this is demonstrated when Utility companies or Contractors who are carrying out works on behalf of the service cause conflict between two necessary conditions, Goldratt (1997). Although Greenwood, Pyper and Wilson, (2000) emphasise the critical need for local authorities to have good public accountability systems in place. Engineering Service will need to encourage open, transparent and effective communication processes judged by the consideration of more
intangible customer communication aspects of service delivery, as a more complex
Service is subjected to greater scrutiny, Danahar and Mattson, (1998).

Additionally Engineering Service will be well advised to consider the different profiles of its customers and stakeholders by utilising a model developed by Mitchell, Agle and Wood (1997) referred to in chapter two. This will assist in defining the power, legitimacy and urgency of those stakeholders who are keen to engage and difficult to engage. A stakeholder analysis and stakeholder matrix as referred to in appendices (7.2 and 7.3) will assist with this process.

5.5.8 Conclusions about the Research Problem

The main themes that have emerged from the research are a consistent lack of knowledge of customer satisfaction issues and its relationship with service performance, combined with inadequate horizontal and vertical communication methods. As Lester (2001), suggests that horizontal and vertical alignment of targets is at the heart of the measurement and management process. A consensus of opinion within Engineering Service assumes that managers and staff are good at service delivery, meeting targets and budget/performance management, but are arrogant when considering customer expectations. The interviews conducted with three of the four other local authorities revealed that customer satisfaction is clearly regarded as a key objective and this is articulated within their service and team action and improvement plans. It would also appear that there has been significant investment made towards achieving customer satisfaction through external consultants.

Tools for measuring performance and improving customer satisfaction are managed more proactively, although SBS confirm was also consistently identified by all local authorities as the favoured option for managing the highways infrastructure. Although Bititci (2002) cites that web enabled performance measurement systems can have management implications, because people issues concerning the dynamics of these systems can inhibit progress for retrieving critical information.

Additionally, the use of centralised call centres had been explored by two local authorities but was dismissed as an unsuitable mechanism for dealing with customers for specific
specialised engineering service enquiries. As Ayios and Harris (2005) report that Call Centre staff will need to offer customers a perception of trust through all specific transactions, consequently if this does not occur, then customer expectations might be compromised.

In addition to the gaps identified in the conceptual model, other gaps have been revealed between primary and secondary data. The survey data from the Highways and Quality of Life surveys do not address customer sensitivity issues and the survey questions are very prescriptive. Proctor (1996) proposes that in order to explore different orientation of customer satisfaction data, implicit and explicit communication methods will need to be examined in addition to analysing and tracking the different customer segments to shape the culture, Felikova (2004).

In conclusion, there are a number of mechanisms in place to address customer satisfaction issues, although there is little co-ordination between existing and new systems that are being implemented both corporately and locally. Assessing customer satisfaction levels within Engineering Service is not demonstrated as a priority or carried out on a regular basis. Customer satisfaction is regarded as time consuming. Additionally, no resources have been specifically allocated to understanding or producing predictive trend analysis within the Service through SBS confirm, Excelsis or the Service Plan/ Team Action plans. It will be essential as part of the modernising agenda for Engineering Service to focus on achieving improved performance outcomes to satisfy the end user, I&DEA (2001).
5.5.9 Performance Management Framework

Customer satisfaction should be measured as a fundamental factor within the performance management framework rather than as a separate element which is added on, Andreassen (1994), as customer satisfaction will impact on the overall performance of the Service, Smith (2005). Although the service plan does articulate short and long term focus, by means of quarter year targets and Local Transport plan targets for in-year reporting, it does not elicit customer and employee issues in depth and neglects to consider organisational learning and innovation issues. Pertinently Practick (2004) proposes that managers must use the performance pyramid as proposed by Lynch and Cross (1991) illustrated in chapter two, to understand cascading objectives and present the meaning of them to the lower levels of the organisation.

Kaplan and Norton (2004) assert that it is a big mistake with performance measurement frameworks to assume that ‘one size fits all.’ This is pertinent when considering service planning, as there has been a culture imposed to replicate all corporate guidance and incorporate previous models that have worked well with other authorities. Although Gaster and Squires (2003) claim that performance measurement through service planning processes will only improve if business processes are met within a welcomed culture.

In order to conduct comparative analysis, performance benchmarking and achieve customer satisfaction, alternative strategic approaches will need to be embraced that are aligned to strategic goals. In this context it will be essential for Engineering Service to carry out an assessment of external benchmarking activities as proposed in chapter two by IDEA (2005).

It is expected that each service will complete all areas articulated within the structure of the corporate plan, referred to in chapter two. It is clear that the service has endured an abundance of uncoordinated directives which has engendered a lack of continuity as to how the “golden thread”, should be implemented. Indeed Excelsis has been designed to demonstrate improvement in the management of how the complexities of processes of compiled data can be monitored. Implementation of this system will not be fully complete
in time to meet the deadline of the next comprehensive performance assessment which may present a distorted picture depicting uncoordinated business planning, Fisk, Brown and Bitner, (1993).

5.6 Limitations of the Study

In respect of the investigation carried out to answer the research question. The study has focused primarily on performance measurement and customer satisfaction to produce the findings which were limited only to the opinions of senior managers within an Engineering Service discipline. The research therefore would indicate that the conclusions are limited to the specific nature of this service. Additionally, the findings do not offer an insight into the opinions of employees at all levels throughout the service, as recognising that constituents other than senior managers may be the best way of overcoming potential bias, Flynn, Schroeder and Sakakibara (1994). In this context, further research would offer greater richness to the data. From comparison with other Local Authorities, it is evident that the conclusions do present some generalisations. However there are some revelations that are in no doubt unique to each specific authority. Hence any detailed findings to be applied should be done with caution, although general conclusions and concepts can conditionally be considered for use.

5.7 Opportunities for Further Research

Further penetration of interviews would need to be extended to a wider population within Engineering Service in order to compare findings with existing data obtained from senior managers. This would prove to be of great value as it would either validate or invalidate the research and highlight other areas of strengths and weaknesses. Additional interviews would need to be conducted at Director level and with County Councillors within Cheshire County Council’s Environment and Policy and Performance directorate and extended to other local authorities, in particular those who are also members of the East Midlands Performance consortium. This would facilitate further insight into performance measurement and customer satisfaction techniques, thus enabling further triangulation of data.
Recommendations of how Engineering Service can manage required changes in order to improve levels in customer satisfaction are included within an action plan in chapter six.
### 6.0 Chapter 6 – Recommendations

The chapter will present recommendations within an action plan for implementation within Cheshire County Council, Engineering Service.

In implementing this action plan, the Service must continually monitor and evaluate the effectiveness of the recommendations and actions, and where necessary revise the plan to ensure that it is meeting the Service’s needs.

### 6.1 Implementation Plan – A Performance Measurement Tool for Improving Customer Satisfaction:

<table>
<thead>
<tr>
<th>Number</th>
<th>Specific Recommendations</th>
<th>Action Officers</th>
<th>Milestones of Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adopt a strong Vision Statement that articulates a clear message to customers. It should be motivating and demonstrate that customers are valued, by considering the Seven Best Practices for making Vision Statements work, Neely, Walters and Austin (2002).</td>
<td>County Engineer</td>
<td>To be reviewed Annually</td>
</tr>
<tr>
<td>2</td>
<td>Improve Customer Expectations through Streamlined Technology by integrating all aspects of customer complaints/feedback and rectification of errors within SBS Confirm, in order to build a repository of information that will enable ES to make a transition from organisational data into implicit and explicit knowledge, Feurer and Chaharbaghi, (1995).</td>
<td>CCC Chief Term Contract Engineer</td>
<td>To be reviewed Annually</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Term Contractor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Analyst.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Appoint External Consultant to conduct Highways and Quality of Life community based surveys to provide an unbiased account of predictive trend analysis, as recommended by Carman and Conrad, (2000).</td>
<td>Performance Manager</td>
<td>To be reviewed every two years</td>
</tr>
<tr>
<td>4</td>
<td>Introduce Local Performance indicators within Team/Unit Action plans to underpin BVPI's 03/04. Incorporate these within Service Planning processes by means of the performance Pyramid (Lynch and Cross, (1991) in order to illustrate cascading objectives, accommodate both horizontal and vertical communication processes.</td>
<td>Performance Manager</td>
<td>To be reviewed annually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service Improvement officer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation Managers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Team Leaders.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Simplify and review Customer access to the ES web page, (electronic call centre) to encourage a user friendly image by introducing hyperlinks to the front page: ‘Road Works’ and Requests/Complaints and Feedback. As Creighton (2000) emphasises the importance of each touch point/back office should demonstrate consistency to encourage a service improvement culture.</td>
<td>County ICT Communication Officer</td>
<td>To be reviewed quarterly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance Manager</td>
<td></td>
</tr>
</tbody>
</table>
7.0 Bibliography


Cheshire County Council (2006) *Highways and Transportation Local Joint Committee*, County Hall, Chester.


Joyce, P. (1999), Strategic Management for Public Services, Open University Press.


Kirklees Metropolitan Council (2005), Council Performance Plan, Benchmarking for Success, Kirklees Metropolitan Council, Civic Centre 3, Market Street, Huddersfield.


Yin, K. (1989) Case Study Research, Design and Methods, Sage, Newbury Park, USA


Internet

URL http://www.2europesolutions.co.uk/balancedscorecard.html

URL http://www.dft.gov.uk/stellent/groups/dft_localtrans/documents/html

IDEA website (2005) [Retrieved from the World Wide Web 05.01.06]
URL http://62.189.42.51/DFIDstage/FOI/tools/chapter02/html

URL http://www.balanced scorecard.org.com

[Retrieved from the World Wide Web on 28.05.06].
URL http://www.practick.co.uk
Appendix 7.1

VISION

THE ENGINEERING SERVICE AIMS TO PROVIDE A SAFE AND ACCESSIBLE HIGHWAY NETWORK WHICH BALANCES THE VARIED NEEDS OF CHESHIRE’S COMMUNITIES.

IN ACHIEVING THIS WE WILL WORK WITH EACH OTHER WITH TRUST, DIGNITY AND RESPECT.

WE WILL DO THIS BY EFFECTIVE USE OF AVAILABLE RESOURCES TO:

- IMPROVE THE CONDITION OF ROADS, BRIDGES AND FOOTWAYS;

- MINIMISE THE RISK FACED BY THOSE USING THE NETWORK;

- REDUCE THE IMPACT OF ROAD TRAFFIC ON PEOPLE’S QUALITY OF LIFE AND THE ENVIRONMENT TO IMPROVE LIVEABILITY; AND

- ASSIST ACCESSIBILITY OBJECTIVES BY CONTRIBUTING TO THE ECONOMIC REGENERATION PROGRAMME AND THE DEVELOPMENT OF A BALANCE RANGE OF OPTIONS.
STAKEHOLDER MATRIX
OF STAKEHOLDER ENGAGEMENT PRIORITIES

High Priority

Borough and District Authorities (4)
Education Authorities (6)
Services; Fire, Ambulance, Police (3)
Client Contractor (Nuttalls) (3)
CCC ES Staff (7)
Public Interested (6)

Members/Councillors/MP's (3)
Audit Commission (4)
Highways Agency (4)
Government/ODPM (4)

High Priority

Tourist Board (6)
CCC Corporate Staff (3)
Network Rail (1)
Local Business' (6)
Existing Engaged Consultants (2)

Public Dis-Interested (5)
Contractors (3)
Utility Companies (5)
Community Establishments (2)

Low Priority

KEEN TO ENGAGE

DIFFICULT TO ENGAGE
<table>
<thead>
<tr>
<th>Ref.</th>
<th>Stakeholder</th>
<th>Stakeholder Aims</th>
<th>Stakeholder Interest</th>
<th>Primary or Secondary Stakeholder</th>
<th>+ve / -ve influence of stakeholder</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Services – Fire, Police Ambulance</td>
<td>Safety and security implications</td>
<td>Emergency access, planning etc</td>
<td>P</td>
<td>+</td>
</tr>
<tr>
<td>6</td>
<td>The Public - Interested</td>
<td>Awareness, safety &amp; disruption.</td>
<td>Residents in the suburbs concerned with delays, congestion &amp; road closure.</td>
<td>P</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rural residents concerned with environment and impact on farming, community etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The Public – Dis-interested</td>
<td>Require work to be done without any personal input, disruption or responsibility. High customer dissatisfaction level</td>
<td>No, or little disruption to their personal business.</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Staff – CCC Engineering</td>
<td>To produce, implement &amp; maintain a coherent strategy, that will deliver Traffic Management regulations and Highway maintenance in accordance with legislative requirements.</td>
<td>To obtain results for the public, To reduce complaints, To please the CCC Chief Executive, To avoid negative press</td>
<td>P</td>
<td>+</td>
</tr>
<tr>
<td>3</td>
<td>Staff – CCC Corporate</td>
<td>To integrate corporate and departmental requirements within the Local Transport Plan and corporate policies.</td>
<td>To obtain results for the public, To obtain results for the government, To obtain results for self-promotion, To manage conflicting priorities, To avoid negative press.</td>
<td>S</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Members/ Councillors/ MP’s</td>
<td>To be aware of electorate issues.</td>
<td>To protect the rights of the voting public.</td>
<td>S</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To be seen protecting the rights of the voting public.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Government/ODPM/Audit Commission</td>
<td>To deliver public services</td>
<td>To deliver national and local policies and initiatives in a fair and legal way.</td>
<td>S</td>
<td>+</td>
</tr>
<tr>
<td>5</td>
<td>Utilities and Contractors</td>
<td>To carry out works within the Traffic Management guidelines, Maintain and Improve the Highway Infrastructure</td>
<td>To deliver quality of service at a competitive price.</td>
<td>P</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Client Contractor</td>
<td></td>
<td></td>
<td>P</td>
<td>+</td>
</tr>
<tr>
<td>Typology Ref.</td>
<td>Stakeholder</td>
<td>Stakeholder Aims</td>
<td>Stakeholder Interest</td>
<td>Primary or Secondary Stakeholder</td>
<td>+ve / -ve influence of stakeholder</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>------------------</td>
<td>----------------------</td>
<td>---------------------------------</td>
<td>----------------------------------</td>
</tr>
</tbody>
</table>
| 6            | Education Authorities | Pupil ‘Management’
To promote Road Safety awareness issues. | • Problems that cause delays
• Implications for deviation to routes to Schools
• Peak times for School travel management. | S | + |
| 6            | Local Business’ | Planning and Liaison for ultimate aim of profit. | • Avoiding disruption of traffic and impact on business in general and strategically.
• Enables input into the process and a voice to be heard through consultation. | P | + |
| 6            | Tourist Board | Planning and Liaison for ultimate aim of promotion of Cheshire | • Avoiding negative impact on tourists and on strategically important events, (e.g. Race Days).
• Enables input into the process and a voice to be heard through consultation. | S | - |
| 2            | Community Establishments | To provide a service to the public | • Minimised disruption to community it serves. (E.g. Weddings, funerals and community events). | P | + |
| 2            | Existing Engaged Consultants | To provide a business service for profit | • Self Preservation
• Could overlap consultant remit
• May create conflict | S | + |
| 4            | Borough and District Councils | To achieve a specific result | • To represent the local community.
• Consultation
• An awareness of ongoing issues. | P | - |
<p>| 1            | Network Rail | To transport the public | • Avoid disruption of supply to | P | + |</p>
<table>
<thead>
<tr>
<th></th>
<th>Highways Agency</th>
<th>Management of Plans and Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td>• Manage Planning for delivery of road schemes with different accountable bodies.</td>
</tr>
</tbody>
</table>

customers on a right first time basis.
## Engineering Service S.W.O.T. Analysis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>
| - New Management Structure  
- Positive action in itself to review current position  
- Promotes service delivery and manages budget targets in accordance with BVPI's (Best Value Performance Indicators).  
- Collates and formalises current informal relationships for partnering.  
- Encourages Investment in People.  
- More streamlined technology  
- Better Representation of performance measurement processes through Excelsis and SBS Confirm reporting systems. | - Re-structuring has revealed poor job fit with some senior employees.  
- Lack of team spirit  
- Grades do not reflect the skills of some staff, which has revealed inflated staff costs and a shortage of skills in some areas.  
- Poor management and lack of perceived control  
- Some stakeholders and customers are difficult to engage.  
- Un co-ordinated array of ICT systems, resulting in profligate use of resources and lack of strategic business planning.  
- More costs associated with training and subsequent upgrades.  
- Depressed culture has led to lack of internal motivation that reflects badly on customers.  
- Lack of promotion for ES successes.  
- Service delivery poorly perceived by customers. |

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
</table>
| - Raise profile of CCC ES in a positive way and avoid acquiring a faceless uncaring image.  
- Ensure that communication methods cater for all by using different tools that will aid disabled and ethnic minorities.  
- Understanding of customer influences and influencers.  
- Engineering Service can be perceived as pro-active and not reactive.  
- Training for staff who do not have customer care related skills.  
- More partnering to get other local authorities to buy into co-ordination of projects. | - No clear direction due to job insecurity during re-structuring process  
- Outsourcing  
- Single Status  
- Local Government Review  
- Use of untrained/unskilled staff to complete projects  
- Bad press reflects badly on the Service which will expose ES to be an underperforming Service.  
- Poor CPA (Comprehensive Performance Assessment awarded from Audit Commission.  
- Re-location to remote areas of the County.  
- More absenteeism. |
Appendix 7.5

Survey of What type of Performance Measurement Tool should be used for improving Customer Satisfaction, within Engineering Service?

Please complete the following questions by selecting your response from the drop down fields, ranking them in order of importance and by adding as much information as possible under the field entitled “any other comments”.

All information will remain confidential

Customer Satisfaction (Part One)

(Code 1)
Q1) Do you feel that the Service Vision statement articulates a clear message to customers?

Agree

If your answer is disagree or strongly disagree to Q1, please list why in the field below.

(Code 1)
Q2) In your opinion, what factors do you believe we should project to customers in order to maintain a positive image within Engineering Service? Please list up to four factors in the fields provided.

1.
2.
3.
4.

Or list any other comments in the field below.

(Code 2)
Q3) In order to get the message across to customers, how do you feel that we should improve on our existing communication mechanisms?

Face to Face

Please list any other comments in the field below.
(Code 1)
Q4) What improvements do you feel that we should make to our ES website, in order to present a more user friendly image to customers? Please justify your answer in the field below.

(Code 3)
Q5) Do you think that CCC ES are effective at building relationships with customers?

Agree

If your answer is disagree or strongly disagree to Q5, please list why in the field below.

(Code 2)
Q6) Do you feel that a centralised call centre, based in a remote location from Backford Hall, would demonstrate a more efficient mechanism for dealing directly with customers?

Agree

If your answer is disagree or strongly disagree to Q6, please explain why in the field below.

(Code 6)
Q7) Do you feel that sufficient effort is made by staff and managers to embrace customer satisfaction issues?

Agree

If your answer is disagree or strongly disagree to Q7, please list any reasons why not in the field below.

(Code 3)
Q8) Do you think that customer satisfaction levels stay relatively static?

Agree

Please list any other comments in the field below.
Q9) Have you been in a situation where you have needed to deal with a customer complaint?

Yes

(Code 3)
Q9A) The customer was satisfied with the response from ES

Agree

(Code 3)
Q9B) The customer was dissatisfied with the response from ES

Agree

If the customer was dissatisfied with the response, please state why in the field below.

(Code 2)
Q10) The Highways Survey/Quality of life surveys are useful diagnostic tools for identifying good and bad points of service delivery, in order to gauge the true level of customer satisfaction?

Agree

If your answer is disagree or strongly disagree to Q10, please list any other suggestions on how this could be addressed in the field below.

(Code 2)
Q11) Do you feel that customer satisfaction surveys should be carried out in-house or via an external consultant?

Agree

Please justify your comments in the field below

(Code 4)
Q12) I would like you to imagine that you are the County Engineer. What would be your priority for improving customer perceptions of Engineering Service? Please list up to four priorities or add any other comments in the fields below.

1.
2.
3.
4.
5.
Performance (Part 2)
(Code 5)
Q13) Creation of Unit/Team plans will contribute positively to the development of a Service Plan as a mechanism to monitor performance.

Agree

If your answer is disagree or strongly disagree to Q13, please list any other comments in the field below, stating why you disagree

(Code 5)
Q14) The Service Plan will enable Engineering Service to address issues for improving service performance and customer satisfaction?

Agree

If your answer is disagree or strongly disagree to Q14, please list any other comments in the field below, stating why you disagree.

(Code 5)
Q15) Engineering Service is good at measuring its performance?

Agree.

If your answer is disagree or strongly disagree to Q15, please list any reasons why you disagree in the field below.

(Code 5)
Q16) Do you feel that desired performance outcomes and quarter year targets provide a realistic picture for improving performance and meeting customer expectations?

Agree

If your answer is disagree or strongly disagree to Q16, please list any comments in the fields provided.
1.
2.
3.
4.

(Code 5)
Q17) In your opinion, what are the critical factors for achieving a high level of performance within Engineering Service?

A healthy culture
Please list any other comments in the field below.

(Code 3)
(Q18) Do you think that the Engineering Service could improve the way it shares information in relation to responses to customer enquiries?

Agree

If your answer is disagree or strongly disagree to Q18, please list any comments on how we should address this in the field below

(Code 4)
(Q19) How do you think that the existing systems for compiling performance measurement data could be improved in order to incorporate a customer focus?

Please list any comments in the field below

(Code 6)
(Q20) In your opinion, have employee attitudes changed within Engineering Service in relation to perceptions of how the service performs?

Agree

If your answer is agree or strongly agree to Q20, please list any comments on how perceptions have changed in the field below.

(Code 7)
(Q21) In your opinion, what type of performance measurement tool should be used to measure customer satisfaction?
SBS Confirm

If you have selected "none of the above" or other to Q21, please justify your answer in the field below.

(Code 8)
(Q22) If you have any other ideas or suggestions for improvements to the way which customer satisfaction and performance is managed within the Engineering Service, please list.

Once you have completed the questionnaire please select;
- File
- Save
- Send to – Original Sender / Mail recipient as attachment
- Mail recipient and return to sheena.wood@cheshire.gov.uk
MBA RESEARCH

All,

As part of my MBA dissertation entitled "A Performance Measurement Tool for improving customer Satisfaction, within a Local Government Framework", I am required to gather some qualitative data. In this context I would like to conduct a small questionnaire based survey with a cross section of members of staff within this service.

I would therefore be very grateful if you could spare a short period of time to complete the attached questionnaire, which should take no longer than 15-20 minutes. The questionnaire is designed to extract qualitative data in order to elicit a richer more detailed set of answers. So the more detail that is included within your answers the better.

This primary data will then be analysed, coded and categorised in order to understand the opinion variables that will ultimately play a key role for analysis within my dissertation.

All completed questionnaires will be treated in the strictest of confidence. Your help and support in this matter is much appreciated.

Please return all questionnaires to me either via e-mail or a hard copy by post, no later than 17th March 2006.

Thanks again,

Sheena